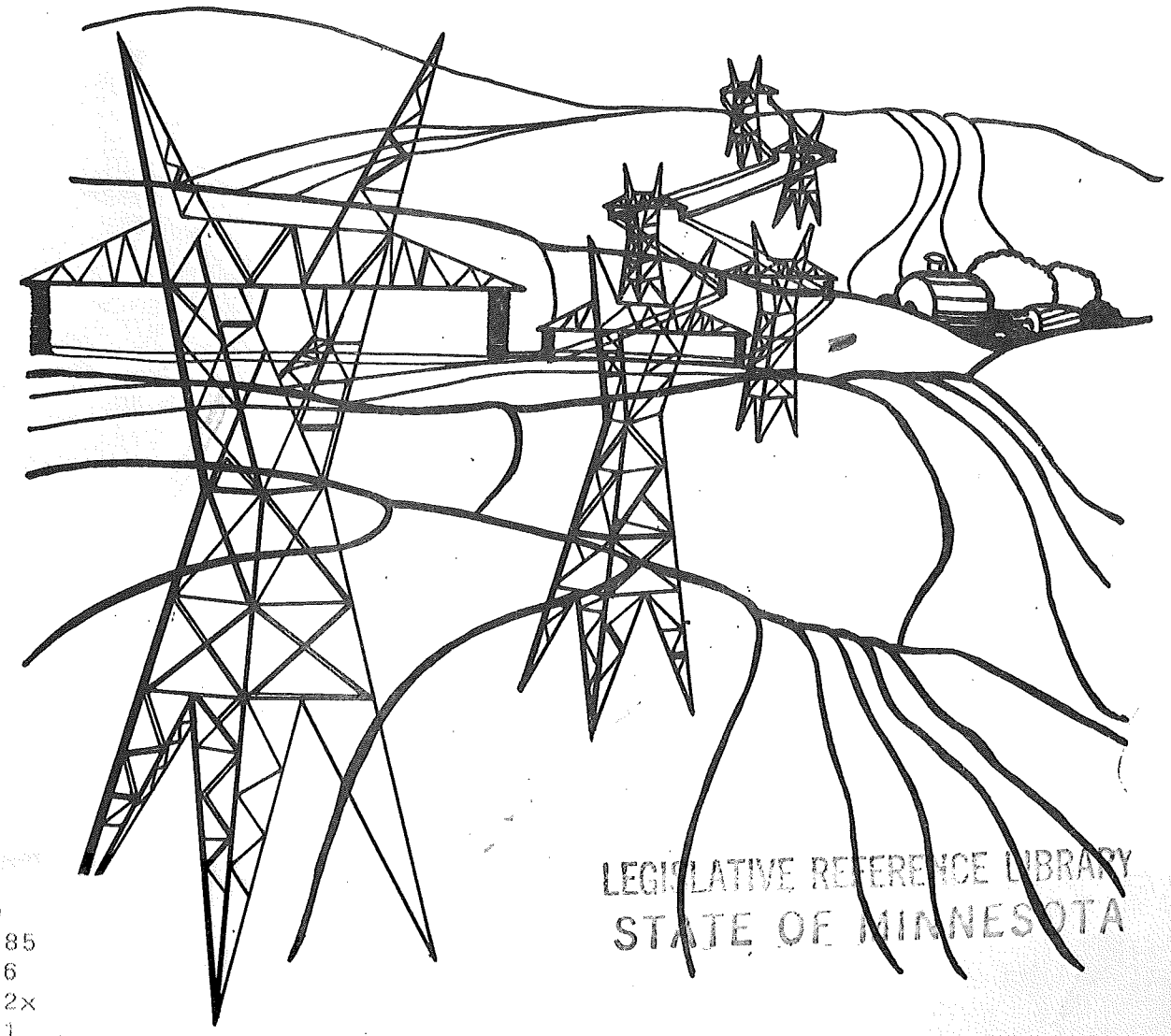
FINAL REPORT

REGULATING ELECTRICAL UTILITIES IN MINNESOTA:

THE REFORM OF LEGAL INSTITUTIONS



ACKNOWLEDGEMENT

There are a number of people who deserve my thanks in helping me to prepare this report. First, this report would not be possible without the funding of the Joint Legislative Committee on Science and Technology. In addition, the four key legislators who helped to determine the direction of the study deserve mention -- Senator Wayne Olhoft, Representatives Ken Nelson, Gordon Voss, and Delbert Anderson.

I also wish to thank the reviewers of the draft report for their cogent comments and those individuals who took the time and effort to respond to the survey undertaken as an auxiliary function to this study.

The people who helped in the logistic efforts necessary to put this report together have my deepest thanks. The efforts of Judy Bailey and Jackie Ballard are greatly appreciated.

The picture on the cover should be credited to an unknown artist who did a similar cover for the Environmental Policy Institute's report "Lines Across the Land."

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PREFACE

Energy policy and energy-related issues have become controversial in recent times. Moreover, such issues are increasingly becoming politicized. This politicization is viewed with suspicion and alarm by many of the energy players. Indeed, one of the questions asked by the various interests groups that were sent a questionnaire asking for input into this study was: "Why is the Joint Legislative Committee on Science and Technology doing a study about the administrative processes relating to energy decision making?" In anticipation of this question by others, this preface explains some of the impetus behind the study, the study's objectives, the organization of the report, and the approach taken in preparing the study.

Over the last several years there has been increased vocalization about and opposition to electrical power in Minnesota as well as the rest of the United States and, indeed, the world. The most obvious example in Minnesota is the ongoing opposition by farmers to the United Power Association/Cooperative Power Association Three $\pm$ 400 kilovolt electric transmission line. This situation has become increasingly more militant and no quick resolution, if any, to the conflict is foreseen. There has been continuous opposition to Northern States Power's nuclear plants (Monticello, Prairie Island, and the now defunct Tyrone plant in Wisconsin) as well as the proposed expansion of the Sherco facilities (one or two 800-megawatt plants). Minnesota Power and Light has seen opposition to the Floodwood-Fine Lakes project (an 800-megawatt plant). This opposition to plants and power lines is not new and opposition to the now defunct Henderson site is still remembered by many.

The Minnesota Legislature has responded by enacting new laws, amending these laws, introducing numerous bills, holding numerous hearings, and still no resolution to the conflicts is foreseen. These conflicts, which are about differing values in the utilization of scarce resources, center around plant size and

type; water pollution, air pollution, and health hazards posed by plants and lines; agricultural and other land impacts; fuel transportation; costs; rates; the siting of plants and lines; and damage awards in the condemnation proceedings. The focus of these conflicts is on the administration processes which make the decisions on these issues. Because of these conflicts and for other reasons, the Joint Committee has responded to requests by some of its members and the Chairman of the now defunct House Select Committee on Energy by authorizing this study.

There were four principal legislators responsible for identifying the issues or issue areas to be addressed in this study: Representatives Gordon Voss, Ken Nelson, and Delbert Anderson, and Senator Wayne Olhoft. The issues were determined through informal discussions between the author and the legislators and between them and others. The issues do not necessarily reflect a consensus on the part of the principal legislators about what is at issue in electrical energy policy. Rather, these issues reflect some of their individual views.

The specific issues with which the study is concerned and the limitations which were placed upon it include

1. The study would be limited to electrical utilities;
2. Public participation would be a primary focus;
3. The interrelationships of the state agencies which regulate electrical utilities including the Minnesota Energy Agency, the Minnesota Environmental Quality Board, permitting agencies and the Public Service Commission would be examined as they are involved in the following issues:
    a. Public participation;
    b. timing agency decision making;
    c. delay in energy facility development;
    d. the relationship of size, type, and location in siting new facilities;
    e. the nature and timing of the environmental review process;
    f. conservation of electrical energy;
    g. the poor and the cost of electrical energy;

h. the certificate of need and the certificate of site compatibility in the determination of "necessity: in eminent domain proceedings; and

i. the "taking" of agricultural land for power plants and lines;

4. Eminent domain would be a primary focus;

5. Recommendations for change would be offered as a catalyst for debate; and

6. A survey of all parties including interest persons, government agencies, and electrical utilities would be undertaken to determine if a consensus of opinion on the problems or solutions could be obtained.

After extensive research and analysis, the principal legislators involved approved a survey that was sent to all electrical utilities, the key seven regulatory agencies, and over 350 people. Of the nearly 600 questionnaires sent out, only 34 were returned--a number insufficient to draw any conclusions from or to determine if a consensus on the problems or their solutions existed.

The report is divided into five chapters. Chapters One and Two provide background information on electrical energy use and the law, regulations, and the administrative processes affecting electrical energy with judicial interpretations thereof. Chapters Three, Four, and Five discuss many of the issues noted above and offer recommendations. These recommendations are not offered in the sense of being absolute solutions to the many problems relating to electrical energy policy. Rather, they are offered as a focal point to debate electrical energy policy and the tools of that policy. The recommendations represent the judgment of the author and should be evaluated on their merits. They do not necessarily reflect the views and opinions of the Joint Committee, the Science and Technology Research Office, the Minnesota Legislature, or the principal legislators involved.

In addition, several appendices are included in the report. Appendix one summarizes the 34 responses to the questionnaires on ten selected questions relating to electrical energy policy. Appendices two through six summarize the recommendations of other legislative and administrative reports on energy policy conducted in the last six years.

This study is designed to be a public administration or process study. The charge that the legislature gave in addressing the issues of this study can be best summed up by the following question: "What in the administrative and regulatory processes contributed to the anger, frustration, and militancy of citizens over power plant and line need, siting, permit, and condemnation decisions?" Consequently the principal concern of the study was whether citizens have the opportunity to effectively participate in the administrative processes which make state decisions involving energy policy. The study does not, for example, address esoteric questions of how participation affects group behavior and attitudes, nor does it address a litiny of specific instances where the processes have been used. Rather, the study analyses decision making processes by (1) examining the factors that the decision making process is required to consider, (2) determining the underlying values implicit within the process, (3) identifying conflicting, unbalanced, or skewed procedures which result in a de facto administrative bias, and (4) examining the process to determine if all interests have the opportunity to participate equally.

The goal of the report is to improve the process by which agencies make decisions. Improving the decision making process should result in decisions that are more acceptable and less frustrating. The key to making better decisions and decisions that are more acceptable to the parties and less frustrating is to design administrative processes that provide for fair and effective opportunity for all interests to participate in the decision. Recognizing that the participants in the administrative process have conflicting value systems and notions of what they feel is important, the major basis for unity among these participants is the way decisions are made. The major element of stability in our political system is that the decision making process is agreed upon prior to the knowledge of the specific outcome of that process. All parties have an interest in preserving a decision making process or political system which they believe is fair. The alternative is the use of force to maintain what is believed to be the majority conviction.

There were two assumptions used in approaching this study. First, the only values that would be considered in evaluating decision making processes were those inherent within the constitutional or statutes enacted by the legislature. There are a number of values, often conflicting, inherent within the decision making processes governing energy policy. Some of these include the following: (1) electricity shall be provided to all who wish it, regardless of end use or waste; (2) conservation is the foremost energy policy of the state; (3) effective and fair public participation shall be provided at all steps in the decision making processes; (4) the health, safety, and welfare of the citizens and protection of the environment shall be preserved and maintained; (5) the poor should be helped and protected; and (6) those citizens who lose their land due to condemnation shall be made whole again in the form of money.

The second assumption rests on the premise that the existing political institutions only need to be refined, that the underlying structure is sound, and no major or fundamental changes in our political structure are needed. It has been suggested that society is presently in too great a state of flux to set up a set of procedures to resolve controversies. Yet, when examining the legislative history and judicial interpretation of statutes, as well as the clarifications provided by the courts about the constitution, it becomes clear that the result of most changes is the continued refinement of existing administrative processes. Generally, the underlying structure of the process remains constant. The specific procedures refine the structure, fine-tune-it, to align it with today's values. Consequently, the study's recommendations attempt to fine-tune the process, rather than offer recommendations which greatly change the underlying structure. This does not mean that the recommendations, if implemented, would not result in significant changes in present practices. Most recommendations are being implemented, in some way, shape, or form now. But, none of the recommendations are designed to alter the underlying political or administrative structure. They are designed to refine the process based upon existing legislatively and constitutionally stated values.

EXECUTIVE SUMMARY

This report (Regulating Electric Utilities in Minnesota: The Reform of Legal Institutions) was funded by the Joint Legislative Committee on Science and Technology of the Minnesota Legislature. A variety of factors contributed to the funding of this study including (1) the increasing cost of electricity; (2) the decrease in supply of cheap, easily accessible fuels to generate electricity; (3) the conflict over the utilization of scarce resources such as air, water, and land; and (4) the controversy over the power line in west-central Minnesota. The report is divided into five chapters. The first two chapters provide background material necessary to the understanding of Minnesota's electric energy policy and tools. The remaining three chapters analyze several important variables in electric energy policy. These last three chapters focus on decision making by agencies and utilities by examining (1) public participation in energy related decision making; (2) how decisions are made which allegedly balance power plant siting with environmental and public health concerns; (3) the impact of a conservation policy on the need for new power plants; (5) the protection of the poor from the rapid rise in the cost of electric energy; and (6) the eminent domain process, the final step in siting power plants and lines.

CHAPTER ONE: SETTING THE STAGE

In recent years the United States and the world have awakened to a new problem involving the conflict of competing public interests both in assuring a reliable supply of electrical energy and in achieving and maintaining a safe, healthful, and pleasing human surrounding. Until a decade or so ago, the public did not perceive these two interests as conflicting. The practice was to promote a rapid growth in the demand for electricity. This attitude was widely accepted after the publication of the National Power Survey in 1964 conducted by the then Federal Power Commission. This document urged "maximum growth" in electrical demand and recommended that this be "encouraged by reductions in rates and steady improvements in service." Such an approach was characterized as a "far-sighted philosophy."[1]

With the Northeast Power Blackout in 1965 and the decision of the second circuit court of appeals in Scenic Hudson Preservation Conference v. Federal Power Commission, which required the Federal Power Commission (FPC) to consider the environmental consequences of its decisions in licensing facilities, the nation became aware that potential conflicts existed between maintaining a reliable supply of electricity and the environmental consequences of doing this.[2] In sum, the public has perceived limits upon the common air, water, and land resources and possible limits on the primary energy resources.

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[1] Federal Power Commission, National Power Survey, Washington, D.C.: USGPO, 1964.

[2] Scenic Hudson Preservation Conference v. Federal Power Commission, 354 F.2d 608 (2d Cir. 1965). See also: 384 U.S. 941 (1966), 453 F.2d 463 (2d Cir. 1971), and 407 U.S. 926 (1972).

Without question electric power is an integral, pervasive element of American society and economy. All sectors of society including industrial, commercial, and personal sectors are dependant upon electricity. Clearly, "without electricity, our twentieth-century civilization--as we know it--cannot survive."[3] However, there is strong disagreement over how much electricity is needed or advisable. There is extensive debate over the factual relationships of electricity to the economy and to the environment. The importance accorded to these economic and environmental values differs substantially. And, obviously, solutions proposed range from faster growth of electricity to intentional, immediate cut-backs depending upon the importance to the individual of the values held. The effect of this debate, which is still continuing, places decision makers in the difficult role of reexamining or creating energy policies on a national and state level.

Minnesota in response to increasing shortages of liquid energy fuels and an increasing demand for electricity has enacted a series of laws creating tools for implementing an energy policy. The only discernible energy policy, however, is that of conservation. Minnesota Statutes, §116H.01, summarizes this policy:[4]

> 116H.01 FINDINGS AND PURPOSE. The legislature finds and declares that the present rapid growth in demand for energy is in part due to unnecessary energy use; that a continuation of this trend will result in serious depletion of finite quantities of fuels, land and water resources, and threats to the state's environmental quality; that the state must insure consideration of urban expansion, transit systems; economic development, energy conservation and environmental protection in planning for large energy facilities; that there is a need to carry out energy conservation measures; and that energy planning, protection of environmental values, development of Minnesota energy sources, and conservation of energy require expanded authority and technical capability and a unified, coordinated response within state government.
>
> The legislature seeks to encourage thrift in the use of energy, and to maximize use of energy-efficient systems, thereby reducing the rate of growth of energy consumption, prudently conserving energy resources, and assuring statewide environmental protection consistent with an adequate, reliable supply of energy.

No comprehensive energy plan exists. The Final Report of the Legislative Commission on Energy summarized the situation:[5]

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[3] Remarks by J.N. Nassikas, "Meeting Energy Demands in a Changing Society," Annual Meeting of the Association of Edison Illuminating Companies, Boca Raton, Florida, December 4, 1969.

[4] Minnesota Energy Agency Act, Minnesota Statutes §116H.01.

[5] "A Minnesota Energy Plan--Proposed, "Final Report of the Legislative Commission on Energy, Minnesota State Legislature, June 10, 1975.

> The Legislative Commission on Energy is aware of no existing statement of an energy policy plan for Minnesota. Because serious energy problems are apparently at our doorstep--curtailed deliveries of natural gas and Canadian crude oil, greatly increased prices for traditional energy fuels, etc.--it is deemed by Commission members to be intolerable that the state is leaving virtually all energy policy decisions to energy suppliers, federal authorities, and the marketplace. Leaving major energy decisions in these quarters is to run the serious risk of allowing the state to slip into consumption patterns that will eventually be altered only at the time of crisis and will probably be accompanied by widespread social and economic dislocations. How much better it would be to use a degree of foresight and prepare an energy policy plan that will minimize or eliminate serious dislocations.

No state energy plan has been enacted by the legislature since this report was issued in 1975. A number of questions need to be addressed in any energy plan relating to electrical energy. Some of these questions are (1) Which energy fuel(s) will be developed and used to meet long-range energy demands?; (2) How will conserving electricity and reducing fluctuations (peak demands) in electrical use be met?; (3) Will electrical growth be limited to critical uses or will all who demand electricity be supplied?; and (4) What limits will be placed upon the development of alternative fuels and technologies for providing electricity and who will develop them?

Section 1.1 reviews past and projected electric energy use. There are a number of different perspectives from which electrical energy use may be viewed including (1) electricity as a fraction of the total energy mix; (2) the growth of electrical use; (3) the control of generating systems; (4) generating capacity of fuel type; and (5) sales of electricity. First, a substantial proportion of U.S. energy (17.03 of 79.40 quadrillion Btu's) goes into the generation of electricity and the various sectors of the economy are increasingly relying on electricity as the most popular form of energy to be used. Second, the United States' consumption of electrical power has grown exponentially with a doubling time of about ten years, which translates into an annual growth rate of about 7.4% through 1973. Since 1973, the growth rate has dropped to less than 3% per year. Generally, the growth of per capita electricity consumption has increased faster than total per capita energy consumption, and while the cost of energy consumption per $1.00 of GNP has decreased, the cost of electricity per $1.00 of GNP has increased since 1920. Third, privately owned utilities (basically NSP) generate most of the electricity in Minnesota. Fourth, most electricity in Minnesota is generated by steam plants. Finally, the urban residential sector consumed 30% of all electricity in 1976, with the commercial, manufacturing, and mining sector consuming over half of the electricity.

The 1976 Advance Forecasting Report submitted to the Minnesota Environmental Quality Board (MEQB) by the Minnesota/Wisconsin Power Suppliers projected winter and summer peak demand growing at a rate of 6.6 and 6.8 percent, respectively. In the 1978 report this was revised downward to 5.1 and 5.0 winter and summer peak demand growth rates respectively. This reduction in the rate of growth is equivalent to a doubling time of about 14 years. These revised figures appear to be unrealistic and probably not more than one new plant will be needed before 1990.

As noted earlier, one energy policy that has been articulated by the state is that of conservation. Some people argue that as one form of energy is conserved another form will be used in its place. Electricity is often suggested as a viable substitute for other energy sources. Electrical energy demand and peak demand would rise if electricity was substituted to meet the projected decline in petroleum supplies.

At some point this growth in electrical demand must be translated into new generating plants. If electricity is substituted for diminishing petroleum supplies, then, as estimated by the Minnesota Energy Agency, anywhere from 17 to 20 new plants and their associated transmission lines would be needed between 1987 and 1995. Others have suggested that anywhere from 12 to 25 (1,600-megawatt) plants may be needed in the next 25 years though still others have suggested "demand is not growing rapidly now."[6] On a short-term basis, the MEA estimates between four and six plants will be needed in the state by 1990, though probably not more than one new plant will be needed by 1990. At present, a number of new facilities have been proposed as well as a number of retirements.

However, many people doubt Minnesota's ability to build four new plants let along the 17 to 25 that may be necessary by the turn of the century. A number of constraints can affect the state's ability to build new plants. These include (1) fuel availability; (2) water supply; (3) environmental constraints such as air and water pollution and their impacts on public health; (4) the availability of capital for financing new plants, and (5) social constraints such as land use and public acceptability.

One of the more interesting aspects about the use of energy in the United States and, indeed, the industrialized portion of the world is that energy growth rate is exponential. This means that the rate of growth is itself increasing. Some have suggested that the growth process is self-accelerating, which means that the very use of energy seems to encourage the use of more energy. Nature is full of these self-propelled processes. However, none of them are perpetual. One may conclude, therefore that exponential growth rates are an indication that the process has not yet encountered the forces which will change it, for example, the constraints noted above and the ability of the consumer to pay the increased prices for energy. Perhaps the revision of utility forecasts downwards is an indication that these forces are finally being felt.

Section 1.2 reviews the rationale for regulating electric utilities. Public utilities are regulated, limited monopolies. They are monopolies because in most instances the government awards a market franchise to only one utility (called a "certificate of public convenience and necessity") to provide a particular service in a specific locality. They may be limited as monopolies where there is inter-industry competition such as product substitution (e.g., natural gas for electricity) and under certain circumstances competition between the types of a public service industry. An example of this competition is that for services between investor owned, government owned, and cooperatively owned electric utilities. In addition, in most states, including Minnesota, utilities are regulated by public commissions.

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[6] Minnesota State Planning Agency et al., Future Electric Resource Demands Pilot Study, December 1976, and Personal Communication with Allan Jaisle, Manager, Power Plant Siting Staff, June 5, 1979.

Prior to World War I, the public believed that competition would keep electrical prices down and that, therefore, there was no need for regulation. Operating under this assumption, municipalities and states granted franchises and issued licenses for the formation of many small power companies. The result was not healthy competition to keep down the cost of electricity, but the emergence of one large strong company buying or forcing out the smaller companies; this led to the formation of monopolies within service areas. As a result of this trend, governments and economists began viewing electrical utilities as "natural monopolies". The government responded by regulating utilities through public commissions.[7]

Section 1.3 summarizes federal regulation of electric utilities. Federal, state, and local governments make many decisions which affect energy policy. The laws and regulations enacted by legislative bodies and promulgated by agencies were established over a period of about 60 years. These regulatory activities were in response to a wide variety of social problems, from monopolistic corporate practices to the availability of electricity to environmental concerns--not because of any national recognition for the need to establish an energy policy.

Since 1935 the federal government has enacted a wide variety of laws regulating electrical utilities and created a host of federal agencies to implement the policies established. Each of these laws has varying degrees of impact on the state's ability to regulate electrical utilities. There are five functional areas of agency responsibility: (1) policy development and program coordination; (2) regulation of the energy sector including economic controls, fuels allocation, and import controls, facility siting, land use, and environmental and safety regulations; (3) research and development; (4) energy resource development; and (5) energy conservation.

CHAPTER TWO: THE ENERGY PLAYERS

There are numerous processes affecting the generation, distribution, and cost of electricity in Minnesota. While many of these processes are guided or controlled by federal laws (see Chapter One), a number of the key decisions affecting the utilities and the ultimate consumers of electricity still reside at the state level. These processes include determining the need for large electrical generating facilities and high voltage transmission lines (HVTLs), conservation policies, advanced planning for new facilities, siting facilities, environmental policies, permitting new facilities, determining service areas, establishing rates, and a host of other activities. The Minnesota Legislature has created a number of agencies to govern these processes and implement its policies.

The energy players who implement the Minnesota regulatory processes that affect and govern electrical utilities and the role the public, which is defined as non-governmental, non-utility people, can play in affecting the decision making process of the agencies and utilities are many. These energy

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[7] Hellman, R., Government Competition in the Electric Utility Industry, New York: Praeger, 1972.

players include the electrical utilities, the Minnesota Energy Agency (MEA), the Environmental Quality Board (MEQB), the permitting and pollution control agencies (primarily MPCA and DNR), the Public Service Commission (PSC) and its related agency, the Department of Public Service (DPS), the public's advocate in rate proceedings (Residential Utility Service Unit (RUSU) within the Office of Consumer Services), and the public (i.e., those "interested persons" affected by a decision and who wish to get involved in the issue).

The two major concerns of the electrical utilities are the authorizations for siting for new facilities and the rate of compensation permitted from the sales of the power generated. Sections 2.2 through 2.4 of Chapter Two describe the agencies that affect siting. The authorizations for siting overlap many agencies. In addition, many agencies have responsibilities involving energy policy beyond siting decisions.

Section 2.1 reviews electrical utilities' organizational structures and laws governing their existence. The electrical utility industry within the United States is generally made up of vertically integrated companies that generate, transmit, and deliver electricity to consumers. There are about 3,500 utility systems supplying electricity in the United States. Of these, about 400 are investor-owned with an aggregate generating capacity of 263,000 megawatts or 77% of the total generating capacity in the United States. Forty systems are federally owned with an aggregate capacity of 39,000 megawatts or 11% of the total. About 2,000 systems are municipally or state-owned with an aggregate generating capacity of 34,000 megawatts or 10% of the total. Finally, the remaining 1,000 cooperatively owned systems have an aggregate capacity of about 5,000 megawatts or less than 2% of the total U.S. generating capacity. Minnesota's electrical utility industry consists of 8 privately owned utilities, 129 municipal utilities, and 56 cooperative utilities.

Most electrical utilities act together to interconnect their transmission systems into regional transmission grids that permit the flow of power among utilities and regions. The development of the grid system is due in large part to a change in perception by government, utilities, and the public of the reliability of electrical power generation. In November 1965, the Northeast Power Blackout demonstrated the disparity between the demand for electricity and the reliability problem of meeting that demand by the industry. The need for increased electrical transmission and generation capability was due to an increasing demand growth rate which rose to 7 to 8% per year. In order to maximize efficiency the industry began interconnecting its systems and relying upon fewer, but larger, generating facilities. Because of this change in direction toward interconnection and larger plants, the opportunity for system failure increased. The Federal Power Commission, recognizing the consequences if such a failure should occur, urged the formation of area reliability councils within the industry. At the same time, state and local governments became more interested in regulating the construction of new energy facilities.

The electrical utilities, recognizing their responsibility to provide consumers with reliable service, formed the National Electric Reliability Council (NERC) in 1968. This national council is divided into nine regional reliability councils. The regional council for Minnesota is called the Mid-Continent Area Reliability Coordination Agreement (MARCA). MARCA is the council which provides the "reliability overview" for the upper midwest region. A

complementary organization to MARCA is the Mid-Continent Area Power Pool (MAPP), which is basically the U.S. portion of MARCA.

While area councils formed by the utilities were originally designed to ensure the reliability of the power system, new factors began to play a major role. The most important factors were due to the growing national concern about environmental deterioration. Along with this growing concern was the development of environmental policy as expressed in the National Environmental Policy Act of 1969:[8]

> The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.

This act introduced the concept of environmental impact in the regulatory process. It established that power plants and all other industry should meet environmental protection standards enacted by federal and state government and that adverse environmental effects of facility siting should be minimized.

The Minnesota utilities within MAPP, MARCA, and the NERC derive their existence from the state. The three types of utilities that service Minnesota exist because of many laws enacted by the legislature.

The first type of utility authorized by the legislature is the public service corporations organized under the General Provisions of Corporations, Minnesota Statutes §300.03 et. seq. These corporations are investor or privately owned utilities which furnish power for public use. The General Provisions permit the state to supervise and regulate the business methods and management of the corporations and fix the compensation they may receive for their services. These corporations are subject to many restrictions not placed on other corporations organized under other provisions of Minnesota Statutes, Chapter 300. These sections also define a public utility to mean any corporation that generates electricity and which is neither a municipality nor any person that furnishes electricity services to less than 50 people including cooperative associations (M.S. §300.11, Subdivision 1 and 4).

The second type of utility authorized by the legislature is the electrical cooperative association organized under Minnesota Statutes, Chapter 308. These utilities are subject to most provisions of the public service corporations.

The third type of utility authorized by the legislature is the municipal utility organized under Minnesota Statutes, Chapter 453 and Chapter 455. Utilities organized under Chapter 453 are municipal corporations consisting of two or more cities formed to acquire and finance electrical facilities. This law extends powers to Municipal Power Agencies (MPAs) to assure an adequate supply of electricity to cities. Chapter 455 provides that city of the second, third, or fourth class, acting alone, may construct or purchase electric light plants.

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[8] National Environmental Policy Act, 42 U.S.C. §4321 35. seq.

Minnesota has developed a set of laws and regulations for the development of large electrical power generating plants and large high voltage transmission lines (HVTLs). The laws, which include the Minnesota Energy Agency Act, the Power Plant Siting Act, and the Environmental Policy Act, require a sequential review of proposed energy facilities. The process basically consists of four steps. First, the utility must obtain a certificate of need from the Minnesota Energy Agency (MEA). Second, after establishing the need for a new facility, the utility must obtain a certificate of site compatibility from the MEQB. The third step is the compilation in an environmental impact statement (EIS) of information necessary for decision making. The final step requires the utility to obtain permits from various agencies for the construction and operation of the proposed facility.

Section 2.2 reviews the function of the Minnesota Energy Agency. The MEA is divided into four divisions: conservation, administration, data and analysis, and alternative energy development. These four divisions oversee the nine major activities of the agency. The MEA employs over 90 people (38 state plus federal and legislative), three times the 1976 level. The four activities that this report is primarily concerned with are the conservation program, forecasting activity, certificate of need activity, and the research program. The most important function of the MEA, with regard for ensuring the reliability of our electrical supply, is the certificate of need activity. The certificate of need process results in the decision for size, type, and timing of new energy facilities.

Section 2.3 reviews the two principal activities of the Environmental Quality Board--power plant siting and environmental policy. The MEQB is composed of seven agency heads, a representative of the governors office, and four members of the citizen advisory committee. The director of the State Planning Agency is the chairman of the MEQB. There are three other laws relating to energy overseen by the MEQB in addition to its enabling legislation. These laws include the Environmental Coordination Procedures Act, the Power Plant Siting Act, and the Environmental Policy Act.

The purpose of the Power Plant Siting Act (PPSA) is to find the most environmentally acceptable locations for large power plants and large HVTLs. This Act is the second step in the sequential process for locating new facilities. The policy of the act was spelled out clearly by the legislature:[9]

> The legislature hereby declares it to be the policy of the state to locate large electric power facilities in an orderly manner compatible with environmental preservation and the efficient use of resources. In accordance with this policy the board shall choose locations that minimize adverse human and environmental impact while insuring continuing electric power system reliability and integrity and insuring that electric energy needs are met and fulfilled in an orderly and timely fashion.

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[9] Power Plant Siting Act, Minnesota Statutes §116C.54.

The Minnesota Environmental Policy Act was enacted in 1973, four years after NEPA (the National Environmental Policy Act of 1969). Both laws sought to establish a new policy that would make environmental and public health values factors in governmental decision making. These values have been ignored by decision makers for many reasons. Environmental values are what economists call exogenous variables (i.e., external factors which cannot easily be assigned dollar amounts). Because of the difficulty, if not impossibility, of assigning dollar amounts to values, environmental and public health concerns were often ignored or considered unimportant in many decisions made by government (i.e., low dollar amounts were assigned to these values). MEPA, both in policy and action, set a new tone for the consideration of these values. The Minnesota Supreme Court has recognized that the purpose of all environmental legislation, at both the state and federal level, is to force agencies to make their own impartial evaluation of environmental considerations in decision making. The purpose of the Minnesota Environmental Policy Act (MEPA) are:[10]

> (a) to declare a state policy that will encourage productive and enjoyable harmony between man and his environment; (b) to promote efforts that will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; and (c) to enrich the understanding of the ecological systems and natural resources important to the state and to the nation.

Section 2.4 reviews the organization and laws of the permitting agencies. The fourth and final step in securing the necessary authorizations for siting new energy facilities is the securing of permits from federal, state, and local agencies. The principal purpose of the EIS process is to secure sufficient information for government agencies to determine whether a new facility should be constructed at a particular location. During the permitting step, the government agencies review the environmental information on the major effects and design of the proposed facility to determine whether it meets the applicable health, environmental, and safety standards. During the process, public hearings are held to solicit public comments and information. If the permitting agency determines that the proposed facility meets the requirements of its laws and regulations, then the permit is issued. If one or more of the agencies determine that its regulations will be violated, permits are denied and the utility must either redesign the facility to obtain compliance or abandon its proposal. In the case involving Sherco 3 & 4 (NSP's proposed addition of two 800-MW plants near Becker, Minnesota) the hearing officer for the MEQB determined that 26 permits from nine government bodies must be obtained. In addition to these permits, the Minnesota Pollution Control Agency (MPCA) must review the plant for compliance with New Source Performance Standards which specify maximum air pollution emissions, and Significant Deterioration Standards (SDS), which specify the maximum allowable degradation of ambient air quality attributable to the new facility, under the Clean Air Act, as amended.

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[10] Environmental Policy Act, Minnesota Statutes §116D.01.

Section 2.5 reviews the function of the Public Service Commission. The second major concern of the electrical utilities, besides obtaining necessary authorization for new facilities, is the rate of compensation permitted from the sales of the power generated. Minnesota began to regulate electrical utilities in 1974 under the Minnesota Public Utilities Act, and became the 48th state in the nation to do so. The principal purpose of this act is to fix rates of compensation for the sales of electric power. The act does not apply at all to municipal utilities; it applies only to those cooperative utilities that choose to become regulated. In addition to fixing rates, the PSC establishes exclusive service areas for utilities.

There are three agencies which have statutory obligations to get involved in rate cases: the Department of Public Service (DPS), the Public Service Commission (PSC), and the Residential Utility Consumer Unit, Office of Consumer Services (RUCU/OCS), which is part of the Commerce Department. Minnesota Statutes, Chapter 216A created the Department of Public Service and the Public Service Commission and provides for the usual administrative responsibilities. Minnesota Statutes, Chapter 216 sets forth the procedures for the Department of Public Service. Minnesota Statutes §45.17, Subd. 2 sets forth the responsibilities of the Residential Utility Consumer Unit:[11]

> Subd. 2. The consumer services section shall be responsible for representing and furthering the interests of residential utility consumers through participation in matters before the public service commission involving utility rates and adequacy of utility services to residential utility consumers. The consumer services section shall expend a reasonable portion of its efforts among all three kinds of utility services and shall identify and promote the needs of each class of residential consumers with respect to each of the utility services.

Section 2.6 examines the role and rights of the public to participate in the process. The role of the people in government decision making has changed substantially over the last two hundred years. In the early years of this country the primary forum for public participation was the local town hall meeting, where most decisions affecting the people were made. The public elected additional representatives to perform such tasks as run the post office, collect tariffs, and provide for the common defense, which were beyond the scope of the town meeting. But government has changed drastically over the last two hundred years and in many ways beyond the projections of Alexis de Tocqueville. Government has become more and more centralized and the public's input into the decision making process has diminished in proportion to and at the same rate as this increased centralization. Today, government affects and controls much of the day-to-day behavior of its citizens.

Since the Civil War, civil government has altered dramatically. No longer does the legislative branch spell out the do's and don't's for American society; rather, it delegates authority to administrative agencies which spell out the do's and don't's. These administrative agencies are run by people who are not elected and who are generally unaffected by their decisions and unaccountable

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[11] Consumer Services Section Act, Minnesota Statutes §45.17, Subd. 2.

for their actions. The legislative branch, by giving up its decision making authority to these agencies, has diminished its role as an equal branch of government and has relegated the executive branch to a superior position. The problem is compounded by little, if any, oversight capability within the legislative branch, particularly on the state level.

However, the administrative agencies are not totally unaccountable for their actions. The long-standing tradition of public participation in agency decision making is still present. The fifth and fourteenth amendments to the U.S. Constitution provide for due process in agency decision making. Since World War II, the Congress and most state legislatures have passed administrative procedures acts and other laws, which provide for public input and accountability and which specify the due process requirements for agency decision making.

Minnesota Statutes, Chapter 15 sets forth provisions relating to the administration of state departments and agencies. Chapter 15 contains the Administrative Procedures Act (APA), M.S. §15.0411-.052. The APA establishes procedures relating to (1) the adoption of rules; (2) petitioning for the adoption of rules; (3) judicial review of validity of rules, agency review of licenses and registrations, agency decisions; and (4) the scope of review. The APA also provides for the publication of rules, the creation of a state register, and the creation of the Office of Hearing Examiners.

Although Congress and the states have passed numerous laws recognizing and encouraging public participation, the idea of public involvement is stated best in the National Environmental Policy Act of 1969. This act emphasized the importance of citizen involvement in enhancing the quality of the environment:[12]

> The Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.

Minnesota put teeth in this statement when it enacted the Minnesota Environmental Rights Act (MERA) in 1971. The purpose of MERA is spelled out in its opening section:[13]

> The legislature finds and declares that each person is entitled by right to the protection, preservation, and enhancement of air, water, land, and other natural resources located within the state and that each person has the responsibility to contribute to the protection, preservation, and enhancement thereof. The legislature further declares its policy to create and maintain within the state conditions under which man and nature can exist in productive harmony in order that present and future generations may enjoy clean air and water, productive land, and other natural resources with which this state has been endowed. Accordingly, it is in the public interest to provide an adequate civil remedy to protect air, water, land, and other natural resources located within the state from pollution, impairment, or destruction.

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[12] National Environmental Policy Act, 42 U.S.C. §4323(c).

[13] Minnesota Environmental Rights Act, Minnesota Statutes §116B.01.

Prior to the passage of MERA, the people of Minnesota were unable to protect the environment effectively through judicial action. Any person whose property was injuriously affected or whose personal enjoyment was lessened by a nuisance such as environmental pollution could maintain a private nuisance action. If the nuisance affected a considerable number of people, then the right to recover damages was modified. Under this circumstance an individual had to show that he or she suffered an injury that was special or peculiar to him or herself and not common to the general public before he or she could recover damages. In many circumstances this was difficult; if not impossible to do.

In addition to the above two laws, the enabling legislation for the energy-related agencies provides additional rights, procedures, and aid in facilitating citizen participation in these administrative processes. Some of these rights, procedures, and aids include (1) a citizen advisor notifies citizens and explains the processes for siting power plants and lines; (2) a citizen advocate for residential utility customers in rate requests by PSC regulated utilities is housed in the Office of Consumer Services; (3) the EIS process provides for public review and comment on site specific EISs; and (4) a host of other procedures relating to planning, rulemaking, hearings, and judicial review.

Table E.S.-1 summarizes the present electric utility regulating process and the role and rights that each "energy player" has in participating in the process.

CHAPTER THREE: PUBLIC PARTICIPATION IN ENERGY RELATED DECISION MAKING

This chapter, while focusing on energy decision making, is entirely applicable to most, if not all, technological decision making. It is an understatement to recognize that technology has impacts (both positive and negative) on the day to day lives of most people. Few, if any, people are immune to the consequences of technology and the impact that technology may have on human values. As the awareness of the role that technology plays in the quality of life has grown, so too has the demand by the public for the opportunity to play a significant role in the decision making processes which underlie technological policies and investments. Because the applications of technology involve considerations of human and societal values, citizens have begun to seek a greater voice and vote. "It is not difficult to see citizen dissatisfaction with nuclear power as a symbol of increasing dissatisfaction among some segments of the population with the economic and technological determinism that they feel has characterized governmental management of limited environmental resources and a broader and more pervasive dissatisfaction with governance itself."[14]

In a general sense, this entire chapter is aimed at assessing the implications (i.e., the pros and cons) of increased public participation in technological decision making, and energy related decision making in particular, and offering recommendations to provide for and assure effective public participation. Section 3.1 examined the role of technological decision making in a democratic republic. It set the stage by examining the characteristics of technology generally, how these characters affect values, which in turn generates conflict,

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[14] Ebbin, S. and Kasper, R., Citizen Groups and the Nuclear Power Controversy, Cambridge, Mass.: MIT Press, 1974, p. 253.

TABLE E.S.-1

THE ELECTRICAL UTILITY REGULATORY PROCESS -- PRESENT PROCESS

	ELECTRICAL UTILITIES	MINNESOTA ENERGY AGENCY	ENVIRONMENTAL QUALITY BOARD	PERMITING AGENCIES	PUBLIC SERVICE COMMISSION
RESPONSIBILITIES/ DECISIONS	PLANS SIZE, TYPE, TIMING, LOCATION, AND RATE DECISIONS	MAKES SIZE, TYPE, AND TIMING DECISION	MAKES LOCATION, EIS DECISION; PLANT DECISION MADE INDEPENDANT OF LINE DECISION; CONDUCTS INVENTORY OF STUDY AREAS	ISSUE PERMITS FOR CONSTRUCTION AND USE	GRANTS RATE REQUESTS; DETERMINES SERVICE AREAS
TIME ALLOWED FOR DECISION	NO TIME LIMIT; USUALLY 5-7 YEARS	6 MONTHS	SITING: 1 YEAR + 6 MONTHS ROUTING: 1 YEAR + 90 DAYS DRAFT EIS: 120 DAYS	SINGLE AGENCY: NONE EPCA: 185-205 DAYS	RATES: 1 YEAR SERVICE AREA: 12 DAYS
RIGHTS OF PUBLIC TO PARTICIPATE: 1. ALLOWED 2. FUNDED 3. PUBLIC ADVOCATE 4. OTHER	 1. NO 2. NO 3. NO 4. NO	 1. YES 2. NO 3. NO 4. NO ADVISORY COMM. NO POLICY	 1. YES: SITING, ROUTING, EIS 2. NO 3. CITIZEN ADVISOR - NO ADVOCATE 4. PPSA ADVISORY COMMITTEE; PARTICIPATION POLICY; EIS: 500 SIGNITURES	 1. YES 2. NO 3. NO 4. NO	 1. YES 2. YES 3. YES 4. NO
ENVIRONMENTAL REVIEW	NO	ENVIRONMENTAL REPORT ON PLANT AND ON LINE	ENVIRONMENTAL REPORT ON PLANTS AND LINES; DRAFT EIS FOR SITES AND LINES	FINAL EIS	NO
COMMENTS:	PLANNING PROCESS IS UNDERTAKEN IN SECRET; BURDEN FOR SIZE, TYPE TIMING, LOCATION, AND RATE DECISIONS ON UTILITIES: NO PUBLIC INPUT INTO PLANNING PROCESS	CONSERVATION IS THE STATED POLICY, BUT IS NOT REFLECTED IN NEED DECISION; MAKES DECISIONS WITHOUT AN EIS; PLACES ALTERNATIVE TECHNOLOGY BURDEN ON OTHERS; INADAQUATE PUBLIC PARTICIPATION MECHANISMS	CONDUCTS AN INVENTORY OF SITE STUDY AREAS, BUT AS AN INDEPENDANT AND UNRELATED FUNCTION OF SITING DECISIONS; MAKES SITING AND ROUTING DECISIONS WITHOUT A COMPLETE EIS; REQUIRES REPEAT OF NEED, SITING, EIS PROCESS BY SEPARATING PLANTS AND LINES; INADAQUATE PUBLIC PARTICIPATION MECHANISMS	EIS IS USED ONLY FOR PERMITING DECISION -- NO ACTION PLANNING POTENTIAL IS DERIVED FROM EIS; INADAQUATE PUBLIC PARTICIPATION MECHANISMS	CONSERVATION POLICIES AND POLICIES TO PROTECT THE POORARE NOT REFLECTED IN THE RATE STRUCTURES; INADAQUATE PUBLIC PARTICIPATION MECHANISMS

resulting in the need for dispute resolution, and the relationship of technological decision making processes to a democratic society. A number of conclusions which set the stage for examining specific decision making in the next two sections may be drawn from this section. First, choices or decisions about technology and the regulatory processes that govern them generally reflect the values and concerns of a small group, rather than the values of the society at large. Second, the disparity of values between those reflected in the decision making process and the components of society at large can and do generate conflict. Third, that western society is pluralistic in nature and contains a wide variety of values which are often at odds with each other. Fourth, the existing process that permits technological decision making by scientists or engineers or regulated interests alone is incompatible with any notion of a democratic society. Finally, any notion of a democratic pluralistic society requires that all values, no matter how extreme, must be reflected and considered in all decision making processes which affect the society at large.

Section 3.2 of this chapter examines ways to improve public participation mechanisms. Section 2.6 of Chapter Two showed that public participation is an integral policy of Minnesota administrative law. Section 3.2 addresses defects in the law identified in the literature as obstacles or barriers to public participation. The literature indicates that there are a number of pre-adjudicative obstacles which have effectively inhibited participation by the public. These include (1) inadequate notification exists for the public to discover forums to express their concerns about decisions that affect them; (2) information and technical expertise needed by the public to present their cases and held by the government or regulated interests is unavailable, unknown or denied to public participants; (3) the administrative process has placed limits on the ability of the public to participate as "parties" in decision making process by inhibiting or prohibiting the public's opportunity to initiate, to testify, to intervene in agency decision making, or to seek review of agency decisions; and (4) no mechanism presently exists which facilitates public participation of unrepresented interests in the decision making process. The following recommendations are offered to remove these barriers:

RECOMMENDATION 1: Notification procedures both under the Administrative Procedures Act and enabling legislation for energy related decision making should include paid advertisements and press releases to state-wide and local newspapers, wire services, and radio and television stations for each and every hearing. Further, all energy related agencies should develop special public service announcements as part of their notification procedures for all official hearings.

RECOMMENDATION 2: The content of the notice should be explicit enough to provide information on the nature, type, and location of the hearing. Further, the notice should explain a citizen's rights and responsibilities for participating in the hearing.

RECOMMENDATION 3: The notice of hearing should provide adequate time, at least 90 days prior to the start of the hearing, for the citizen to organize and prepare his case. Consequently, the notice of hearing should run at least once a week for eight weeks.

RECOMMENDATION 4: The Public Advisor citizen involvement tool should be extended to the certificate of need, environmental impact statement, permitting rates, and designated service area processes. Further, this should be accomplished by the creation of an office of public advisor to be established in a manner similar to the Office of Hearing Examiners.

RECOMMENDATION 5: The primary energy related decision making agencies (MEA, MEQB, PSC, and PCA) should coordinate their information gathering and provide a joint information clearinghouse to give citizens easy access to energy related information.

RECOMMENDATION 6: Minnesota Statutes §15.1611 et. seq. should be amended to give citizens an unqualified right of access to energy related information of a nonpersonal nature.

RECOMMENDATION 7: Minnesota Statutes §15.1611 et. seq. should specify access to information procedures which include time limits, uniform fee schedules, a right to judicial review, a regulation and notification requirement, an indexing requirement, and a right to see all disclosable information.

RECOMMENDATION 8: Transcripts of agency hearings should be provided at little or no cost; multiple file requirements should be removed; and citizens should have open access to agency experts as advisors and witnesses.

RECOMMENDATION 9: Standing as requirement for judicial review of agency decisions should be removed, except for the case or controversy requirement of Article III of the U.S. Constitution. The Administrative Procedures Act, in particular Minnesota Statutes sections 15.0423, 15.0424, and 15.0426 should be amended to reflect this policy.

RECOMMENDATION 10: The Minnesota Administrative Procedures Act should be amended to guarantee any citizen the right to intervene in any agency action regardless of the nature of the citizen's interest. In particular, no qualification of the right to intervene shall be considered in decisions involving the siting of any kind of facility.

RECOMMENDATION 11: The Minnesota Administrative Procedures Act should be amended to require agencies to have an affirmative duty to consider all interests in arriving at a decision. Further, the courts in reviewing agency activities should evaluate whether or not the agency adequately and fully considered the interests of all parties and participants.

RECOMMENDATION 12: The Minnesota Administrative Procedures Act contested case procedure should be amended to permit the public to petition to initiate formal contested case procedures where informal procedures may now be used. The petition should be specific as to what action is requested and the need for the action. Denial of the petition should be subject to judicial review.

RECOMMENDATION 13: The legislature should create a variety of institutional mechanisms to effectively provide representation for unrepresented interests in governmental decision making. Three mechanisms should be enacted: (1) an office of public counsel should be created in each regulatory agency to represent nonregulated clients in adjudicatory or rule-making proceedings under the jurisdiction of the Attorney General; (2) a department of citizen advocate should be created on the cabinet level to augment the representation of unrepresented interest in agency decision making; and (3) a center for intervention and technical assistance or group of centers should be created to assist interested persons and groups who wish to intervene in agency decision making or in judicial review of agency decisions.

The office of public counsel, the department of citizen advocate, and the center for intervention and technical assistance should (1) be statuatorily established and be provided with a separate appropriations budget line; (2) the director of each office should have complete administrative authority over the office; (3) each office should be empowered to intervene with full party status in agency proceedings; (4) each office should be empowered to seek judicial review of agency decisions; (5) the office of public counsel should have public complaint handling responsibilities; (6) the office of public counsel and the center for intervention and technical assistance should be permitted to advise and assist, including the undertaking of studies and information dissemination, independent groups and individuals who seek to represent broad interests before governmental agencies; (7) each office or center should possess adequate authority to obtain information needed to carry out their functions; and (8) each office or center should have adequate funding to assume these responsibilities.

Section 3.3 of the chapter examines additional aspects of the administrative process necessary to assure public participation by those who wish to represent themselves. While the recommendations offered above are important in that they remove barriers in the process to public participants, they are insufficient by themselves to assure effective public participation. Since many of the decisions with which the public may want to participate involve complex technologies, adequate time and resources are essential for the public to effectively present its case. A review of the literature indicates that these two components (timeliness and resources) are crucial for public interest involvement. The following recommendations are offered to assure that timeliness and lack of resources do not constitute insuperable barriers to public participation.

RECOMMENDATION 14: The public should be permitted to become involved in the planning decisions relating to energy decision making at an early date. Applications for certificates of need and site compatibility as well as designation should take place at least two to five years earlier than at present. Notification of the application should be undertaken as recommended earlier (see recommendations 1-4). Ex parte communication with agency decision makers should be prohibited. All documents filed should be a matter of public record as recommended earlier (see recommendations 6 and 8).

RECOMMENDATION 15: The Minnesota Public Utilities Act should be amended to prohibit rate increases until after the Public Service Commission makes a decision.

RECOMMENDATION 16: It should be the policy of the State of Minnesota to provide financing to nonprofit citizen organizations and unincorporated citizen groups in order to assure that the public can participate in adjudicatory or rulemaking proceedings. Whenever possible, the legislature should provide funding through application fees in adjudicatory cases. Otherwise, funding should be provided via a direct appropriation, either through the center for intervention and technical assistance (see recommendation 13) recommended above or through the agency itself. The criteria for eligibility should be limited to the technical quality and importance of the group's proposal and the need for the funds. The amount of funding provided to any individual or group should be flexible with the criteria being the complexity of the issues, the number of groups to be funded, and the amount of funds available.

RECOMMENDATION 17: The Minnesota Administrative Procedures Act should be amended to empower agencies to order "fee shifting" in cases of bad faith, willful violation of an agency order, or other egregious conduct.

RECOMMENDATION 18: The Minnesota Administrative Procedures Act should be amended to require the courts to provide legal fees to any plaintiff who brings an action against an administrative agency compelling the agency to do its job or challenging the agency's decision for being arbitrary and capricious, and wins, or in the opinion of the presiding justice has a legitimate issue, but still loses. Agencies should not be able to collect fees under any circumstances from the plaintiff.

Emotions run high on the wisdom of facilitating broader public participation in agency proceedings and in particular of subsidizing private individuals or groups at the regulated interests or at the taxpayers expense. The primary argument against broadening public participation is that of delay. Yet, as section 3.3 notes, public participation is responsible for little, if any, delay in administrative decision making. Further, many commentators believe that increased, effective public participation will reduce delay by raising legitimate issues early, thereby avoiding prolonged court cases.

As an NRC study observed, "most of those observed believed that these issues [nuclear power plant licensing] could and should be determined. A decision one way or another would neither bring the nuclear industry to its knees, nor wipe out intervenors. After all, what is under discussion is a concordant procedure for dispute resolution--not a clandestine plan for revolution."[15] We need, as attorney Mark Massel suggested, to take a fresh look at the regulatory process:[16]

> . . . government regulation has been treated as an insulated, technical activity of government. Much of the discussion has been founded on the implication--stronger because unstated--that regulation is a legal function that can be protected from the contamination of other government activities. This academic assumption has been so imbedded that most of the debating gambits have overlooked three significant features of the regulatory process: first, it is inherently a political activity that is a substantial element in modern economies; second, the regulatory functions are too intertwined with a host of other government activities to be set as a class apart; and third, while procedural problems are important, they are subsidiary to the objectives and accomplishments of the regulatory functions.
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> Adequate consideration of the policy issues that are inherent in the regulatory process will depend upon a continuing awareness of our traditional anxiety about government regulation, an anxiety that stems from our inability to make clear-cut decisions about what functions we want government to undertake. Our ultimate public policy goals are an interesting compound of social, economic, political, and international aims. Many of these aims conflict with each other. At least, they give such an appearance. For social and political reasons, we want many independent private enterprises because we believe that they will insure the effective working of the democratic process and equality of opportunity; at the same time, we look to large corporate aggregations to satisfy certain economic and military objectives. Many look to government for the solutions to broad economic and social problems; but others are restive about government interference. We want to assure everyone of his day in court; yet, we are unhappy with the lengthy administrative hearings that this objective entails.

Public participation in administrative agency decision making is, of course, not an end in itself. Rather, it is a means of insuring that regulation does in fact further the "public interest." Attacks on the process that the agencies too often favor and accommodate the desires and ends of the regulated interests are often voiced. If the response is to admit only the most well organized and financed groups to a position of influence (i.e., the regulated interests), the

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[15] Office of State Programs, Improving Regulatory Effectiveness in Federal/State Siting Actions, Vol. 8: Nuclear Power Plant Licensing: A New England Perspective, Washington, D.C.: Nuclear Regulatory Commission, NUREG-0202 1977, p. 207.

[16] Massel, M. "The Regulatory Process," 26 Law and Contemporary Problems 179, at 181-2, 1961.

ultimate decisions will reflect the values of only a subset of the society. If the public interest is truly defined through process, then the public must be able to effectively participate in the process.

CHAPTER FOUR: SELECTED ISSUES IN ELECTRICAL ENERGY POLICY

Chapter Four focuses on three aspects of electrical energy policy: (1) power plant siting and the environment (section 4.1); (2) conservation of electrical energy (section 4.2); and (3) electric rates and the poor (section 4.3). As noted in the preface to this report, there were a number of limitations placed upon this study. The effect of these limitations greatly restricted the scope of inquiry which this report could address. The purpose of this study is to address process questions, i.e., is the process structured so that technological and value factors can be considered.

Section 4.1 focuses on the conflict between electric power and the environment. The building of electrical energy facilities has and continues to generate substantial conflict. The conflict centers on the competition between many important social interests. Two interests that this report is concerned with include (1) the need to provide an adequate, reliable supply of electricity and (2) the need to protect the public health and to prevent further environmental degradation. The competition between these two interests is over the utilization of scarce resources: air, water, and land. Because disputes arise over the competition for these resources (a competition that reflects differing values), dispute resolution mechanisms in the form of decision making authorities are necessary. The two principal decision making authorities in Minnesota which are charged with making decisions about energy facilities, are the Minnesota Energy Agency (MEA) under the Energy Agency Act and the Minnesota Environmental Quality Board (MEQB) under the Power Plant Siting Act (PPSA) and the Environmental Policy Act (MEPA).

An analysis of these decision making authorities reveal that the conflicts still exist. First, the inherent conflict of values in the legislative policies existing prior to the establishment of the decision making authorities noted above is not resolved by these authorities. Second, the decisions that arise from the certificate of need process and the power plant siting process do not result in a balanced decision of the competing interests. Rather, the defacto policies inherent in the site-by-site decisions, made pursuant to these laws, result in a random solution, if any, to the fundamental conflicts that exist between economic, environmental, and social considerations.

Recognizing that the planning process for the need, size, type, and location of electrical energy facilities rests almost completely with the utility and that the primary concern of the utility is to maintain an adequate and reliable supply of electricity, how are environmental values reflected in the process? Because the planning process of the utilities is made in secret, no one other than utility executives knows how environmental factors influence a utility's choice for size, type, and location in its applications to the MEA or MEQB. Environmental factors in the decision making processes of government are reflected through the environmental review procedures established under MEPA. These processes and procedures provide that the MEA make a decision on size and type with an environmental report (ER) as the mechanism to provide public health and environmental information for "planning" the decision. In addition, the location decision for a specific size and type of facility made by the MEQB also utilizes an environmental report (ER) as the mechanism to provide environmental information in "planning" its location decision.

An analysis of the process reveals that size, type, and location decisions are inseparable in anticipating the environmental and public health consequences of the decisions. Using a series of guidelines developed by the Rand Corporation for the California State Assembly on power plant siting, this report analyzed the Minnesota decision making mechanisms to determine if the present design for decision making and division of agency authority adequately coordinated the size, type, and location decision. The analysis revealed that (1) functions which are naturally linked, such as size, type, and location of power plants and lines, were not grouped together; (2) the existing decision making process failed to provide separate institutions for separate roles, such as balancing size, type, and location with the environmental consequences of the decisions; (3) the existing process failed to take into account the natural tendencies of institutional behavior, such as a bias toward one side or the other; (4) many members of the public are upset with the results of the agencies decision making; and (5) the MEA does not have the proper balance of responsibilities to provide technical competence and impartiality in making its size and type decision.

The following recommendation is offered to overcome the present design flaw in agency decision making and the division of agency authority, which results in an adequately coordinated size, type, and location decision.

RECOMMENDATION 19: Size, type and location decisions should be made together in one agency. The Agency best suited to making this decision is the MEQB. The MEA should continue to issue a certificate of need based on factors that affect demand without regard to the size(s) and type(s) of facilities necessary to meet that demand.

Environmental factors are considered in an environmental review process created by the Minnesota Environmental Policy Act (MEPA). The purposes of MEPA are many and include an intention to alter the decision making processes of administrative agencies in two ways. First, the environmental impact statement (EIS) process is an information gathering procedure, an "environmental full disclosure law", to inform decision makers about how their policies affect the quality of the air, water, and land before they make their decision. Second, the EIS process is an action planning procedure, i.e., it permits an agency to make a rational choice from a set of alternatives with full information about the environmental consequences of both the preferred choice and the alternatives.

A retrospective review of the National Environmental Policy Act (NEPA) reveals that NEPA and the federal EIS procedure have improved coordination and effectiveness in decision making. Since NEPA and MEPA are nearly identical in terms of their policies, their disclosure requirements, the impact statement criteria, and in many other ways, an analysis of MEPA procedures for the environmental review of the size, type, and location decision was made. The analysis was based on a comparison of state procedures with those factors which were shown to improve coordination and effectiveness in decision making for federal agencies. The analysis revealed that the existing environmental review process for determining the environmental consequences for power plants and lines defeated the purpose and intent of MEPA in six ways. In particular, the existing process fails to (1) consider all possible environmental effects at each stage of the process where decision making affects the environment; (2)

provide adequate staff to independently review the environmental impact of the proposed action and its alternatives; (3) permit adequate consideration of other agency mandates in the decision making process for determining the size, type, and location of power plants and lines; (4) provide timely consideration of the environmental impact of the proposed action and its alternatives; (5) provide reasonable public review of environmental information documents necessary to meet the purposes of MEPA; and (6) provide adequate consideration of alternatives by excluding certain alternatives and by failing to provide equal treatment of the few alternatives considered with the proposed action.

The three key problems associated with the environmental review process established by the regulations promulgated pursuant to MEPA are the timing and scope of the EIS procedure and the secrecy associated with the planning process. The problems that have arisen with respect to EIS timing and scope can be traced to a common conceptual difficulty on the part of agency personnel. What is involved is not merely "bad faith" or administrative lethargy on the part of the agencies, but a deeply ingrained bureaucratic orientation to focus on goals, rather than on process. Process refers to the methodology or procedures of decision making. The secrecy problem is an inherent part of both utility and agency behavior, which is compounded by an administrative process that is not presently designed to foster openness, since it informs the public of a basically predetermined decision at the eleventh hour.

The EIS action planning mechanism created by MEPA is the procedure by which environmental concerns are made a part of agency decision making. The effective utilization of MEPA EIS procedures by the MEQB can make significant strides toward achieving a more efficient facility siting determination. It must be noted that the EIS procedure is not the cause of duplication of laws and procedures. On the contrary, the EIS procedure can serve to reduce unnecessary overlap of environmental review as well as help agencies to make intelligent decisions.

Since the purpose and intent of MEPA and its associated EIS procedure is to provide an environmental full disclosure law and to improve agency decision making, the following recommendations are offered to accomplish these ends.

RECOMMENDATION 20: The environmental review process should be revised to reflect both the intent and spirit of the Minnesota Environmental Policy Act (MEPA). This should be accomplished by undertaking the following: (1) an environmental impact statement (EIS) should be mandatory for any power plant or transmission line which is subject to the jurisdiction of the Power Plant Siting Act (PPSA); (2) power plants and transmission lines should be considered together whenever possible; (3) the environmental reports required to be prepared at the certificate of need stage and the power plant siting and route designation stage should be abolished; (4) the environmental assessment worksheet required to be prepared at the power plant siting and route designation stage should also be abolished; (5) the public should be given 60 days to review and comment on the draft EIS; (6) all environmental impact statements (whether plants and lines or just lines) should be prepared by the MPCA; and (7) the Minnesota Environmental Quality Board (MEQB) should receive additional funds to hire staff necessary to make an independent evaluation of an EIS prepared pursuant to MEPA.

RECOMMENDATION 21: The EIS process for power plants and transmission lines should be revised. First, a "planning EIS" should be prepared and finalized prior to the MEQB decision on size, type, and location. The "planning EIS" should review alternative sizes and types and study areas identified in the MEQB inventory of study areas program. The "planning EIS" would evaluate other planning activities including air quality, water quality, water resources, land use, economic, and transportation planning activities for the purpose of evaluating alternative sizes and types and the demand that they place in choosing a study area. All agencies which are involved in air, water, land, economic, and transportation planning, should participate in the preparation of the draft EIS and submit written comments on the draft EIS. Upon completion of the final EIS, the MEQB should choose a type(s) and size(s) and a study area for the plant(s). Second, upon completion of the "planning EIS" and the size, type, and study area decision, the MEQB would identify two or more sites within the study area for the location of the plant(s). Once these sites have been identified a "project EIS" would be undertaken to analyze in detail the environmental consequences of the MEQB size, type, and location decisions on the local environment. The "project EIS" would be completed and finalized by the MEQB prior to the issuance of any permit or construction authorization.

RECOMMENDATION 22: A generic EIS should be prepared and updated at periodic intervals on (1) the environmental and economic consequences of alternative and conventional energy technologies of different sizes; (2) the relationship of these technologies to the end use energy requirements; (3) the impact of these technologies on the goals and plans of environmental protection in the long-run; (4) the impact of energy demand projections upon the depletion of natural resources; and (5) the impact of altering the tax structure, electric rates, rationing and retrofitting more energy efficient products, in short conservation, as an alternative to building more power plants and lines.

RECOMMENDATION 23: The timing of decision making processes should be significantly altered so that all interested parties to the decisions can rely on a specific time table for making the decision. The following time frames offer definite limits on agency decisions, but within realistic time periods:

(1) The certificate of need decision should remain at six months;
(2) The draft planning EIS should be finished within one year;

(3) The final planning EIS should be completed within 90 days after completion of the draft planning EIS;
(4) The size(s), type(s), and study area(s) decision should be made within six months of the approval of the final planning EIS;
(5) The draft project EIS should be completed within 450 days of the size(s), type(s), and study area(s) decision;
(6) The final project EIS should be completed within 90 days after completion of the draft project EIS;
(7) The final location(s) decision should be made within six months of the approval of the final project EIS; and,
(8) Permits issued by a single agency should be issued within one year of the date of application, but no applications should be accepted until after the completion and approval of the final project EIS and after the location decision(s) have been made by the MEQB.

RECOMMENDATION 24: Minnesota Statutes, Chapter 116C (The Environmental Quality Board Act) should be amended to clarify the Minnesota Environmental Quality Board's responsibilities including the responsibility to act as an advocate of environmental values in all proceedings in which the Board is involved.

Section 4.2 focused on the conservation of electrical energy. The need for increased energy conservation is based upon four principle arguments. First, the "energy crisis" is "not a temporary interruption of supply but a more fundamental change caused by our moving from an era of abundant energy to an era of scarce, expensive energy. . ." (Emphasis not added).[17] Second, while not offered as a total solution to the energy problem, conservation can (1) slow the growth rate of energy consumption; (2) stretch the remaining life of fossil fuels; (3) reduce the environmental impacts of energy production and use; (4) hold down the U.S. foreign trade deficit; and (5) help to keep the price of energy within peoples' reach. Third, energy conservation is "a strategy [that] is not in competition with the present energy industries nor with the present efforts to increase the supply capacities of these industries. Rather it is a common-sense effort that offers substantial promise for helping to meet anticipated demand requirements, and for minimizing the economic and social costs resulting from unexpected supply problems."[18] Finally, the amount of energy that can be conserved without interfering with lifestyles is considerable.

There are many problems in the U.S. in attempting to achieve significant energy conservation. Energy consumption is dependent on (1) the energy efficiency of existing products and equipment that use energy, and (2) the way consumers operate or use the existing stock of products (traditional use patterns), altering energy consumption patterns requires changing one or both of these

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[17] American Institute of Architects, Energy and the Built Environment: A Gap in Current Strategies, Washington, D.C., 1974.

[18] Ibid., p. 8.

factors. Energy consuming products can be modified in two ways. In the short term these products can be made more efficient through retrofit. In the long run these products can be replaced with more energy efficient products. In both instances efficient energy products or retrofit devices must be available in sufficient quantities and consumers must choose these products over less efficient ones before energy consumption can be reduced. Altering traditional energy use patterns involves the way individuals, businesses, and others carry out their daily activities. These types of changes are difficult because of the sheer number of consumers that need to be affected and because the change in daily activities may, from a consumer viewpoint, be in a less convenient fashion. The change in consumer behavior required is compounded because "the growing demand for energy as a matter of either public policy or private practice runs contrary to the trend of the last several decades."[19]

There are a number of policy options available to encourage the conservation of electricity. First, policies can be designed to elicit voluntary responses from consumers by creating an awareness of the benefits of energy conservation, both in terms of dollar and energy savings. Specific policies would center around consumer education, applicance labeling, and providing financial incentive for the development and use of energy saving devices. Second, policies can be designed which indirectly affect the market. This involves either raising the effective price of energy and/or lowering the real cost of implementing energy conservation measures, such as more energy efficient products. For example, specific programs, which provide financial incentives to conserve energy, include tax credits, grants, low interest loans or loan guarantees to businesses or individuals, and other tax relief for users who install more efficient equipment or manufacturers who make such equipment can be enacted. Financial disincentives can also be enacted through the taxing power by providing taxes on the energy, taxes on the energy user (such as a sales tax), or taxes on those who use disproportionate quantities of energy (i.e., taxes based on the estimated average annual electricity use of the equipment, elimination of promotional rebates to builders and users). Third, policies can be designed which directly affect the market, i.e., involves governmental regulation or restriction of energy use for energy-using products. These are basically proscriptive policies which include changes in the building code; bans on the manufacture, sale, or installation of certain types of equipment; restrictions on wattages or minimum efficiency of electrical equipment or appliances; restrictions on new building permits; and explicit rationing of electricity and other forms of energy. Finally, policies can be designed which change the user cost of electricity, either through taxes as noted above or through changes in the overall price mechanism, i.e., changing the rate schedule.

The question that Chapter Four, section (4.2) addresses is whether the process permits the consideration of these conservation policy options. A review of the statutes relating to conservation (see Chapter Two, section 2.2A) shows the following (1) energy conservation is the policy of the State of Minnesota, (2) the primary function of the MEA is to promote and elicit voluntary energy conservation functions from consumers and to enforce specific, statutory energy conservation measures; and (3) the PSC must, under the National Energy Act of 1978, in particular sections 111 and 113 of the Public Utilities Regulatory Policies Act,

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[19] Hammond, A. L., et al., Energy and the Future, Washington, D.C.: AAAS, 1973.

hold hearings to determine the appropriateness of implementing energy conservation measures which may affect the rate schedules.

The present conservation policies do not generally address direct or indirect market approaches, to energy conservation. These approaches include little in the way of a taxing policy, a tax relief policy or tax credits, loans, etc. for electric energy conservation. They do not restrict the use of energy inefficient equipment or provide specific authority for the agencies to restrict such equipment (require retrofitting or minimum efficiency rating other than for air conditioning and lighting), nor do they address the rationing of electrical energy. Since many of these issues were addressed in the Final Report of the House Select Committee on Energy and the MEQC Energy Policy Task Force Report, this report recommends that the Legislature pay close attention to the recommendations of those reports.

Section 4.3 focuses on electric rates and the poor. It is generally recognized that the more money people have, the more energy they use. However, studies show that the poor spend a greater percentage of their income on energy than the middle or upper income people. The Ford Foundation report A Time to Choose found that "the poor spend almost 15 percent of their household income on energy while the high consumption of fuel by the rich typically accounts for only 4 percent of their incomes. Any major price increases will thus cause hardship to poor families, since their energy use levels do not include a margin of extra amenities easily done without."[20]

It has been recommended both nationally and in Minnesota that the effects of increasing energy costs not unduly burden the poor and others on fixed incomes. Hazel Rollins, Acting Deputy Administrator of the Economic Regulatory Administration of the Department of Energy, noted that "no geographic, ethnic, or income group should have to bear an unfair share of the total burden, and none should reap undue benefits from our energy problems. It is particularly important that we protect the elderly, the poor, and those on fixed income from disproportionately adverse effects on their incomes."[21] In addition, the MEA has offered as one of their energy policy recommendations that "appropriate legislation to provide assistance for consumers most impacted by higher electricity costs" be undertaken.[22]

One proposal that has been offered to alleviate the impact of rising electric rates on the poor, the elderly, and others on fixed incomes is the establishment of "lifeline" rates as a component of the rate structure. While there is no rigid definition of lifeline, the purpose is to structure the rates in such a way that residential users pay a reduced price for relatively small quantities of electricity (for example, the first 300 to 500 kilowatt hours used per month) necessary for essential needs. The underlying premise behind the lifeline concept is to reduce the price of electricity to residential users who consume small quantities.

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[20] Energy Policy Project, A Time to Choose: America's Energy Future, Final Report of the Energy Policy Project of the Ford Foundation, Cambridge, Mass.: Ballinger, 1974, p. 334.

[21] Rollins, H., "Energy and the Consumer," Energy Policy Options for Illinois, Proceedings of the Fifth Annual Illinois Energy Conference, September 28-30, 1977, Chicago Circle Campus, University of Illinois, p. 198.

[22] Energy Policy and Conservation Report, Minnesota Energy Agency, 1978, p. 5.

Lifeline rates offer three apparent advantages. First, they provide rate relief to residential users who use only small amounts of electricity. These users are thought to be the poor, the elderly and others on fixed incomes. Second, lifeline rates promote conservation by providing an economic incentive to hold down consumption. Finally, rates are easy to understand, can be placed in effect without much delay, and are politically and administratively advantagous to the government because they require no new tax revenues to administer "the program". As a result of these multiple advantages, the lifeline rate concept has taken different forms in the several states which have implemented them. In California, for example, lifeline rates have generated strong support as a method of slowing down growth in electricity consumption.

Since there exists a general policy within Minnesota to help the poor (M.S., Chapter 261), the rising costs of electric rates should not unduly burden the poor, the elderly, and others on fixed incomes. Because the data shows that people are reluctant to use stamps, whether food or energy stamps, and because energy stamps do not encourage conservation, a program that provides relief for the poor as well as encourages that conservation should be adopted.

RECOMMENDATION 25: It should be the policy of Minnesota to protect the poor, the elderly, and others on fixed incomes from the rising cost of electrical energy. Therefore, the Public Service Commission should begin hearings to enact a "lifeline" rate which benefits the poor and encourages conservation. The lifeline rate structure should reflect all factors which affect the essential uses of electricity.

Table E.S.-2 summarizes how the recommendation in this report alter the present process of regulating electrical utilities.

CHAPTER FIVE: EMINENT DOMAIN AND POWER PLANT AND LINE SITING

It is apparent that there is a crisis attitude today with regard to energy problems. This is indicated by (1) the proliferation of new agencies; (2) the enactment of new laws which regulate energy use and development, and (3) by the proposal for new procedures, such as the Energy Mobilization Board (EMB). The EMB, for example, would not only develop priorities for energy projects and goals, but would limit the time that federal state, and local governments can make decisions (a process that could result in de facto denial of due process and substantive consideration of the proposed project). The decisions that result from this crisis attitude can seriously affect land use. Studies on the future of land use in the United States report that our intensive use of land is expected to nearly double by the year 2000. The equivalent of every public and private facility including schools, hospitals, shopping centers, power plants, pipelines, homes and highways will be duplicated to accommodate projected population increases in the next twenty to thirty years. Accompanying this type of resource use pressure will be hotly contested debates over governmental powers to regulate land use and the taking of land for public purposes. Recently, extensive debates have occurred in Minnesota over regulation and the taking of land (particularly agricultural land) for power plants, power lines, pipelines, streets and highways, the "domed stadium", preserving "wild and scenic" rivers, protecting the BWCA and many more. These debates, which have occurred in the courts, the legislature, before government agencies, and in many other public forums, will increase in the future.

TABLE E.S.-2

THE ELECTRICAL UTILITY REGULATORY PROCESS -- RECOMMENDED PROCESS

	ELECTRICAL UTILITIES	MINNESOTA ENERGY AGENCY	ENVIRONMENTAL QUALITY BOARD	PERMITING AGENCIES	PUBLIC SERVICE COMMISSION
RESPONSIBILITIES/ DECISIONS	MAKES PRELIMINARY ESTIMATE OF NEED; PLANS RATE REQUEST; PARTICIPATES IN THE PROCESS	MAKES TIMING AND QUANTITY DECISIONS (MW CAPACITY NEEDED)	MAKES SIZE, TYPE, AND LOCATION DECISION; PLANTS AND LINES ARE TOGETHER; SIZE(S) AND TYPE(S) DECISIONS MADE AFTER PLANNING EIS; LOCATION DECISION MADE AFTER PROJECT EIS	ISSUES PERMITS FOR CONSTRUCTION AND USE	GRANTS RATE REQUESTS; DETERMINES SERVICE AREAS
TIME ALLOWED FOR DECISION	PRELIMINARY ESTIMATE DETERMINED IN 1-3 YEARS	6 MONTHS	DRAFT PLANNING EIS: 1 YEAR FINAL PLANNING EIS: + 90 DAYS SIZE(S) AND TYPE(S): 6 MONTHS DRAFT PROJECT EIS: 450 DAYS FINAL PROJECT EIS: +90 DAYS LOCATION DECISION: 6 MONTHS	PERMITS BY A SINGLE AGENCY: 1 YEAR EPCA: 185-205 DAYS	RATES: 1 YEAR
ENVIRONMENTAL REVIEW	NONE REQUIRED	NONE REQUIRED	EIS FOR PLANNING PURPOSES - RESULTS IN SIZE(S), TYPE(S) AND STUDY AREA(S) DECISION; EIS FOR PROJECT - RESULTS IN LOCATION DECISION	NONE REQUIRED	NONE REQUIRED
RIGHTS OF PUBLIC TO PARTICIPATE: 1. ALLOWED 2. FUNDED 3. PUBLIC ADVOCATE 4. OTHER	 1. NO 2. NO 3. NO 4. NO	 1. YES 2. YES 3. YES 4. CITIZEN ADVISOR	 1. YES 2. YES 3. YES 4. SAME	 1. YES 2. YES 3. YES 4. CITIZEN ADVISOR	 1. YES 2. YES 3. YES 4. CITIZEN ADVISOR
COMMENTS:	TIME REDUCED BY 4-6 YEARS BY ACTIVELY TRANSFERRING PLANNING ACTIVITIES TO MEA AND MEQB	MAKES TIMING AND QUANTITY DECISION ONLY - SIZE AND TYPE DECISION TRANSFERRED TO MEQB; NO ENVIRONMENTAL REVIEW; EXPANDS PUBLIC PARTICIPATION MECHANISMS	EXPANDS DECISIONS TO INCLUDE SIZE(S) AND TYPE(S); ELIMINATES ENVIRONMENTAL REPORTS AND EAW - SUBSTITUTES TWO EIS PROCESSES - ONE FOR PLANNING AND ONE FOR PROJECTS; PLANTS AND LINES ARE TOGETHER; SPECIFIES TIMES FOR DECISIONS; EXPANDS PUBLIC PARTICIPATION MECHANISMS	PERMITS ARE ISSUED AFTER PROJECT EIS IS COMPLETED; EXPANDS PUBLIC PARTICIPATION MECHANISMS; SPECIFIES TIMES FOR DECISION	ESTABLISHES LIFELINE RATES; EXPANDS PUBLIC PARTICIPATION

The desireability of local control over land use decision is under serious question. Each local community, being concerned with its own protection, has tended to zone its land to avoid becoming a dump for undesirable uses. This has resulted in urban sprawl, exclusionary zoning, and unplanned development. Regional problems such as pollution, inadequate housing, and improper management of the environment have been attacked haphazardly and often in deference to wholly local interests. This has resulted in purely local welfare becoming the dominant concern. In addition, local governments, which are dependent upon property taxes for support, find it difficult to resist the desires of developers even though important social and aesthetic interests are sacrificed. One commentator has suggested that the problem is due not so much that the land use decision making is local, but "the flaw is that the criteria for decision making are exclusively local, even when the interests are far more comprehensive."[23]

Recently, the Minnesota Legislature has enacted new laws to overcome the procedures of local concerns by enacting state land use control authorities. Some of these include the Flood Plain Management Act, Regulation of Shoreland Development, the Critical Areas Act, the Minnesota Wild and Scenic Rivers Act, and the Power Plant Siting Act. In each instance the state either regulates the use of the land through its police power or permits the "taking" of the land to meet a "public use" through the power of eminent domain. This chapter focuses on the taking of land under the power of eminent domain by addressing the controversy about the condemnation or eminent domain process used to take land.

What powers and what limitations on the use of power does the state have in affecting the use of land? No matter what level of government seeks to control land use by direct or indirect means, the control must be based on one or more of the following powers; commerce power, power to tax and spend, power over federal property, police power (including control of public nuisances), and eminent domain.

The two most important powers from the perspective state control are the police power and the power of eminent domain. Indeed, much of the litigation over real property that takes place is a result of the choice of power (police or eminent domain) that the state exercised in a given instance. The issue in these cases is whether a "taking" has occurred which requires compensation by the state or others delegated the power of eminent domain.

Eminent domain, like the police power, is inherent in the sovereignty of the state and requires no constitutional recognition. The U.S. Supreme Court has ruled that "the right of eminent domain, that is, the right to take private property for public uses, appertains to every independant government. It requires no constitutional recognition; it is an attribute of sovereignty."[24]

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[23] Babcock, R., The Zoning Game, 1966, p. 153.

[24] Boom Co. v. Paterson, 98 U.S. 403, at 406 (1873).

Constitutional provisions concerning eminent domain limit the power of government to exercise the right, but do not create the power. Even so, the court has ruled that the fifth amendment implies the grant of the power of eminent domain to government.

Does the taking of private property for siting power plants and high voltage transmission lines (HVTL) constitute a public use? The recognition that power plants and lines serve a public use is obviously connected with the inherent value of electricity itself. Since electricity possesses an inherent capacity to serve domestic uses, it has and continues to be considered a public use unless produced primarily to private rather than public use. Since power plants and lines are the sole means of providing electricity to consumers, they have generally been considered a public use. A number of cases have addressed various aspects of the public use issue as it relates to power plants and lines. The cases have determined that (1) each member of the public need not be actually benefitted by the construction of a plant or line for it to serve a public use, provided that each member of the public shares an equal right with all others to use the electricity; (2) the fact that one patron will be served by the facility does not destroy its public nature; (3) the transmission of electricity by a wholesaler for ultimate distribution constitutes a public use; (4) electricity supplied to insure the reliability of a power system, even though it might not supply any customers (within a state) directly, still constitutes a public use; (5) public use exists where evidence that reserve emergency power supplies would be increased by the proposed facility, that the existing electrical distribution system would be stabilized, or that options existed that could provide electric power to a substantial number of residences; (6) property may be condemned prior to the granting of certificate of necessity by state agencies; (7) land may be condemned even though other property may be more suitable; and (8) utilities may enter private property to conduct tests prior to the initiation of condemnation proceedings. In sum, the taking of private property to site power plants and lines appears to constitute a legitimate public use.

The issue of whether power plants and lines constitute a legitimate public use was settled in a 1979 Minnesota Supreme Court Case. It had been argued that the Minnesota Energy Agency Act (M.S., Chapter 116H) removed the question of need from the eminent domain proceedings of M.S., Chapter 117. "By this Act, the legislature has removed from the condemnation court the power to decide whether the subject facility is needed and has transferred that power to a state administrative agency."[25]

Minnesota has extended the power of eminent domain to more than state agencies and political subdivisions. The power has been extended to railroads, mining companies, public utilities and others. As a result, eminent domain is a widely used power affecting land use and the rights and values of large numbers of people. In addition, the eminent domain procedures differ substantially from procedures for other types of civil conflicts.

Chapter One of this report noted that a significant number of new power plants and their associated transmission lines may be built in the next 20 to 30 years. While the ultimate amount of electrical power capacity that can be sited is a function of many technological, environmental, and economic factors; human elements and social acceptance will play a major role. As noted by many

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[25] Drawz, J., "An examination of the Effect of the Energy Agency Act, the Power Plant Siting Act, the Environmental Policies Act and the Environmental Rights Act on Minnesota Condemnation Law," Eminent Domain, Nov. 2 and 3, 1979 (unpub.).

individuals in government, utilities and the community, the growth in electrical power will be closely linked with questions of social equity and the perception of justice that exists in the processes for siting, condemming, and paying for electric power plants and lines. This section examined three aspects of the condemnation issue (1) due process; (2) social equity in condemnation proceedings; and (3) negotiating the taking. "A thread that runs through all the decisions dealing with the issue of due process and the necessity of some kind of hearing is a tendency towards balancing of private interests in procedural safeguards against government expense and burden of providing those safeguards."[26] The listing of the required constitutional elements for a fair hearing provides a basis for comparison of the state eminent domain procedure. Since, Minnesota Statutes, Chapter 117 requires a hearing in the condemnation process both on the "commissioner" level and upon appeal at district court, an analysis of the need for a hearing in condemnation proceedings seems moot.

The eminent domain process provided for in Minnesota Statutes, Chapter 117 fails to meet the due process requirements as delineated in Goldberg v. Kelly in several respects (1) the notice of the petition for condemnation fails to provide an explanation of the reasons for the taking; (2) there is no legal requirement that the damages awarded by the tribunal of commissioner be based upon the evidence adduced at the hearing; and (3) there is no requirement that the commissioners explain how they arrived at their decision in the report that they file with the district court. The following recommendations are offered to overcome the due process inadequacies in the present statute.

RECOMMENDATION 26: A copy of the petition submitted to district court under Minnesota Statutes §117.055 should be included with the notice of the time and place of the hearing served upon the owner and occupant of the land.

RECOMMENDATION 27: Minnesota Statutes §117.086 relating to non-contiguous tracts of land should be applicable at the commissioner level, as well as on appeal.

RECOMMENDATION 28: Minnesota Statutes §117.085 should be amended to require that the damages awarded by the commissioners be based upon evidence submitted at the hearings, and the viewing, and that the chairman of the commission be required to explain in writing how the commission arrived at its decision for awarding damages in the report that it submits to the district court.

The purpose of the condemnation procedure is to provide the "just compensation" mandated by the fifth amendment to the U.S. Constitution. Just compensation requires that the party whose property was taken must be placed in as good a financial position by a condemnation award as the party would have occupied had the property not been taken. In others words, a party whose land was taken must be awarded a full and perfect equivalent in money. This

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26 Comment, "Land Use and Due Process -- An Examination of Current Federal and State Procedures," 9 St. Mary's Law J. 846, at 849 (1978).

is the thrust of the U.S. Supreme Court's early opinions. In 1943 in United States v. Miller, the U.S. Supreme Court created the "willing buyer-willing seller" or "fair market value" theory for determining just compensation. Market value is what a "willing buyer will sell to a willing seller." Just compensation, therefore, was determined a theoretical market value, i.e., a price that a not overeager buyer pays in a hypothetical market. Market value, as the court said, was "a guess by informed persons."

The Supreme Court decisions, which have affected the evaluation concepts in every state, fail to recognize, monetarily, that the property owner in a condemnation proceeding is a unwilling seller. Consequently, the courts have ignored an owner's unwillingness to sell and the special benefits that accrue to the condemner. In addition, in the absence of state law to the contrary, the courts ignore the loss of profits, business interruption, and appraiser, attorney, and other costs incurred in the condemnation process. "This unenviable position of unwillingness is recognized in English and Canadian law, where at least some balm is given to an innocent victim of that process, euphemistically called 'bulldozing for progress.' "[27]

A sense of justice would demand that, since one is dealing with an unwilling seller, the condemnation process minimize the burden in the process upon the land owner and insure that his interest is represented. Four aspects of the condemnation process, which have defects in light of the unwilling seller concept, include (1) the commissioner process; (2) placing the burden of proof; (3) paying the damage award; and (4) payment of costs incurred in the process. The following recommendations are offered to overcome defects in these areas.

RECOMMENDATION 29: The commissioner system provided in eminent domain proceedings under Minnesota Statutes, Chapter 117 should be retained.

RECOMMENDATION 30: The mechanism for choosing commissioners should be altered so that insofar as practical and desirable, the commissioners shall consist of (1) a real estate broker or other person familiar with current real estate market values; (2) a qualified real estate appraiser; and (3) an attorney knowledgeable in eminent domain or real estate law.

RECOMMENDATION 31: The burden of proof in condemnation proceedings should be abandoned at all stages in the eminent domain process including appeals. On appeal, the owner should still be given the right to open and close at trial.

RECOMMENDATION 32: Minnesota Statutes, Chapter 117 and Minnesota Statutes §116C.63 should be amended to provide a uniform and consistent approach to the payment of damage awards. The petitioner should first attempt to directly pay the owner all unincumbered, uncontested damage awards before depositing the award with the clerk of court. The clerk of district court should deposit all awards

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[27] Searles, S., "Eminent Domain: A Kaleidoscope View," 1 Real Estate Law J. 226, at 238 (1972-3).

in an interest bearing account until paid. Any owner should be able to elect to receive his award in equal installments up to ten years with all unpaid installments accruing interest. All awards held by the district court shall be payable upon demand, and if encumbered or contested upon the removal of such encumbrance or the conclusion of such contesting to the owner upon written request. This provision should be made retroactive to all awards held by the district court.

RECOMMENDATION 33: The petitioner in the eminent domain process should be required to pay all reasonable appraisal and expert witness costs incurred on the part of the owner at any stage of the process including appeals. In addition, the petitioner should pay all reasonable legal costs including attorney fees if the owner, upon appeal, receives an increase in his award by $1,000.00 or 10 percent, whichever is less.

It is common practice for a utility to negotiate a settlement of the compensation award, prior to the initiation of condemnation proceedings. However, there is no statutory obligation that the utilities conduct negotiations. The Uniform Eminent Domain Code recommends that a condemner make diligent efforts to acquire property by negotiation before instituting eminent domain proceedings. The proposed code recommends (1) that the condemner have the property appraised and inform the owner of the appraisal and permit the owner to accompany the appraiser during the inspection; (2) that the condemner must offer the owner an amount at least equal to the condemner's appraisal of just compensation for the property; and (3) that the condemner may institute condemnation proceedings without negotiating if the owner refuses to negotiate or under other circumstances. It is axiomatic to fair negotiating not to harrass or coerce the owner to compel agreement on the damage award. During the construction of the UPA/CPA line in west-central Minnesota, many farmers have complained that harrassment occurred and fraudulent statements were made by representatives of the cooperatives. According to a former agent who worked for the cooperatives, such practices were common. The following recommendations are offered to provide for better negotiating practices.

RECOMMENDATION 34: During negotiating for property subject to eminent domain proceedings, the following practices should be statutorily mandated (1) the condemnor must have the property appraised and inform the owner of the appraisal and permit the owner to accompany the appraiser during the inspection; (2) the condemnor must offer an amount at least equal to the condemnor's appraisal of just compensation for the property; and (3) the condemnor may institute condemnation proceedings without negotiating if the owner refuses to negotiate, cannot be found, is legally incompetent, or similar reasons.

RECOMMENDATION 35: A fraud statute should be enacted which prohibits harrassment or the use of fraudulent statements to secure title to land subject to condemnation proceedings. If a condemner uses these practices, a penalty should be imposed of an additional 50 percent of the just compensation added to the award.

RECOMMENDATION 36: The petitioner in a condemnation proceeding should be required to provide a "handbook" to the owner and tenant of the proper which explains his rights in condemnation proceedings, how the process works, and how to participate in the process. This handbook should be provided during the first meeting or notice to the owner and tenant of an interest to acquire any land, which could be subject to a condemnation proceeding.

The use of land in Minnesota is rapidly becoming politicized, just as energy, food, water, and minerals has in the last 100 years. Fifty years ago, land was thought of as a commodity to be used by the owner as he pleased without regard to neighboring or community interests. Today, land is no longer cheap and its supply has not increased either with Minnesota's population or the demands of that population. As a result, the existing land is used much more interdependent and land is now regarded more as a resource than a commodity.

It is axiomatic that the development and use of energy resources, whether on public or private land, generates conflict with other land uses. Often energy facilities are located on lands valuable for agricultural, forestry, grazing, or recreational uses. Therefore, one of the more important issues in the siting question is the compatibility of energy facilities with other land uses. In addition, the increases distances between the energy facility and the end uses of that energy demand ever increasing amounts of land for transmission corridors. Consequently, some attempt to resolving these land use conflicts or at least balancing the competing interests for the land must be made.

RECOMMENDATION 37: Utility companies building high voltage transmission lines must attempt negotiations with the owner on the exact placement of the towers within the route designated by the MEQB.

RECOMMENDATION 38: In siting high voltage transmission lines, the utility should follow property lines or section lines whenever practical within the route designated by the MEQB unless an alternative is negotiated with the owner. If negotiations do not result in a settlement, the commissioners should decide the exact placement of the towers.

RECOMMENDATION 39: The Minnesota Environmental Quality Board should amend its exclusion and avoidance area regulations to include prime agricultural land as an exemption.

RECOMMENDATION 40: Since the MEA and MEQB certificate of need and power plant siting decisions determine the necessity for the condemnation petition, the MEA certificate of need and MEQB power plant siting process should be completed before the eminent domain actions are commenced.

CHAPTER ONE

SETTING THE STAGE

In recent years the United States and the world have awakened to a new problem involving the conflict of competing public interests both in assuring a reliable supply of electrical energy and in achieving and maintaining a safe, healthful, and pleasing human surrounding. Until a decade or so ago, the public did not perceive these two interests as conflicting. The practice was to promote a rapid growth in the demand for electricity. This attitude was widely accepted after the publication of the National Power Survey in 1964 conducted by the then Federal Power Commission. This document urged "maximum growth" in electrical demand and recommended that this be "encouraged by reductions in rates and steady improvements in service." Such an approach was characterized as a "far-sighted philosophy."[1]

With the Northeast Power Blackout in 1965 and the decision of the second circuit court of appeals in Scenic Hudson Preservation Conference v. Federal Power Commission, which required the Federal Power Commission (FPC) to consider the environmental consequences of its decisions in licensing facilities, the nation became aware that potential conflicts existed between maintaining a reliable supply of electricity and the environmental consequences of doing this.[2] In sum, the public has perceived limits upon the common air, water, and land resources and possible limits on the primary energy resources.

Without question electric power is an integral, pervasive element of American society and economy. All sectors of society including industrial, commercial, and personal sectors are dependant upon electricity. Clearly, "without electricity, our twentieth-century civilization-as we know it--cannot survive."[3] However, there is strong disagreement over how much electricity is needed or advisable. There is extensive debate over the factual relationships of electricity to the economy and to the environment. The importance accorded to these economic and environmental values

differs substantially. And, obviously, solutions proposed range from faster growth of electricity to intentional, immediate cut-backs depending upon the importance to the individual of the values held. The effect of this debate, which is still continuing, places decision makers in the difficult role of re-examining or creating energy policies on a national and state level.

Electricity started to become available to the public about 100 years ago. In the mid-1930s, the U.S. government for numerous reasons established the goal of electrifying America. Only now is debate taking place in the establishment of a formal energy policy. For at least 40 years there has been an implicit national energy policy of "more and more energy at cheaper and cheaper prices." Several notions unrelated to this implicit energy policy have contributed to today's situation. Stephen Wahefield of the Federal Energy Office explains:[4]

> The roots of our current difficulties extend back to our energy policy which has been at least an implicit part of our national actions for 40 years. While many critics have contended that our troubles lay in the absence of an energy policy, for 4 decades we have lived under the guiding principle that American consumers shall be furnished their total demands for energy at the lowest reasonable cost.
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> While several actions unrelated to this policy have contributed to today's crisis, its overtones are heard on several primary counts. Burgeoning, unrestrained demand for energy was taken almost as a sacred cow. Hold down the price to the consumer: grant incentives through the utility rate system for higher volume users; don't include environmental or social costs which might discourage use. Conservation of energy was virtually an unknown phrase a year ago--except to those who correctly foresaw what was coming. And meanwhile our annual energy growth rate jumped from 2.8 percent in the 50's to 4.2 percent in the 60's to 4.9 percent since 1970. (Emphasis added.)

Minnesota, in response to increasing shortages of liquid energy fuels and an increasing demand for electricity, has enacted a series of laws creating tools for implementing an energy policy. The only discernible energy policy, however, is that of conservation. Minnesota Statutes, 116H.01, summarizes this policy:[5]

> 116H.01 FINDINGS AND PURPOSE. The legislature finds and declares that the present rapid growth in demand for energy is in part due to unnecessary energy use; that a continuation of this trend will result in serious depletion of finite quantities of fuels, land and water resources, and threats to the state's environmental quality: that the state must

> insure consideration of urban expansion, transit systems; economic development, energy conservation and environmental protection in planning for large energy facilities; that there is a need to carry out energy conservation measures; and that energy planning, protection of environmental values, development of Minnesota energy sources, and conservation of energy require expanded authority and technical capability and a unified, coordinated response within state government.
>
> The legislature seeks to encourage thrift in the use of energy, and to maximize use of energy-efficient systems, thereby reducing the rate of growth of energy consumption, prudently conserving energy resources, and assuring statewide environmental protection consistent with an adequate reliable supply of energy.

No comprehensive energy plan exists. The Final Report of the Legislative Commission on Energy summarized the situation:[6]

> The Legislative Commission on Energy is aware of no existing statement of an energy policy plan for Minnesota. Because serious energy problems are apparently at our doorstep--curtailed deliveries of natural gas and Canadian crude oil, greatly increased prices for traditional energy fuels, etc.--it is deemed by Commission members to be intolerable that the state is leaving virtually all energy policy decisions to energy suppliers, federal authorities, and the marketplace. Leaving major energy decisions in these quarters is to run the serious risk of allowing the state to slip into consumption patterns that will eventually be altered only at the time of crisis and will probably be accompanied by widespread social and economic dislocations. How much better it would be to use a degree of foresight and prepare an energy policy plan that will minimize or eliminate serious dislocations.

No state energy plan has been enacted by the legislature since this report was issued in 1975. A number of questions need to be addressed in any energy plan relating to electrical energy. Some of these questions are (1) Which energy fuel(s) will be developed and used to meet long-range energy demands?; (2) How will conserving electricity and reducing fluctuations (peak demands) in electrical use be met?; (3) Will electrical growth be limited to critical uses or will all who demand electricity be supplied?; and (4) What limits will be placed upon the development of alternative fuels and technologies for providing electricity and who will develop them?

The purpose of this study is to examine the administrative regulatory processes relating to electrical energy. This is accomplished by (1) reviewing the existing process in Minnesota; (2) examining problem areas identified by the three principal

legislators who determined the direction of the study; and (3) offering ideas and recommendations as a catalyst for debate on these issues. This chapter reviews electrical energy use, examines the rationale for regulating electrical utilities, and summarizes federal energy law.

A description of the components of an electric power system is in order, since electricity is an energy form and not an energy resource. Figure 1-1 illustrates these components. Electricity flows from a generator to a transformer where the voltage is increased, to substations or distribution centers, and finally to the ultimate consumer. A flow diagram of these components is provided in Figure 1-2.

1.1 Patterns of Electrical Use

A discussion of the patterns of electrical use is necessary in order to set the stage for an analysis on the administrative processes governing electrical energy. Electrical use patterns can easily be divided into two groups. First, a review of historical data on electrical use can explain how the current situation developed. Second, a look at projected trends may enable us to see what situations need to be faced in the future. A great deal of the administrative processes involve siting decisions. Therefore, a discussion of electrical use patterns provides a clearer picture of the electrical energy situation necessary for appreciating the importance of further debate in the creation of a state energy plan and the tools for implementing that plan.

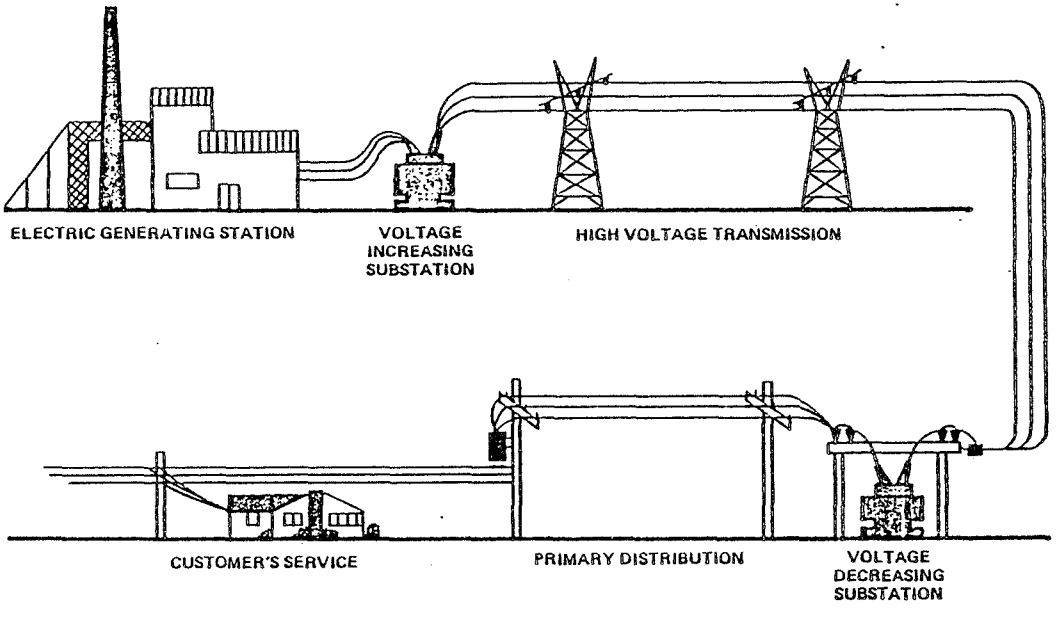
A. Historical Data on Electricity

There are a number of different perspectives from which electrical energy use may be viewed. The following tables and figures provide historical data on electrical use patterns from five perspectives: (1) electricity as a fraction of the total energy mix; (2) the growth of electrical use; (3) the control of generating systems; (4) generating capacity of fuel type; and (5) sales of electricity.

Table 1-1 describes the United States energy consumption mix expressed in terms of quadrillion Btu's. Table 1-2 shows the increase in electricity as a

FIGURE 1-1

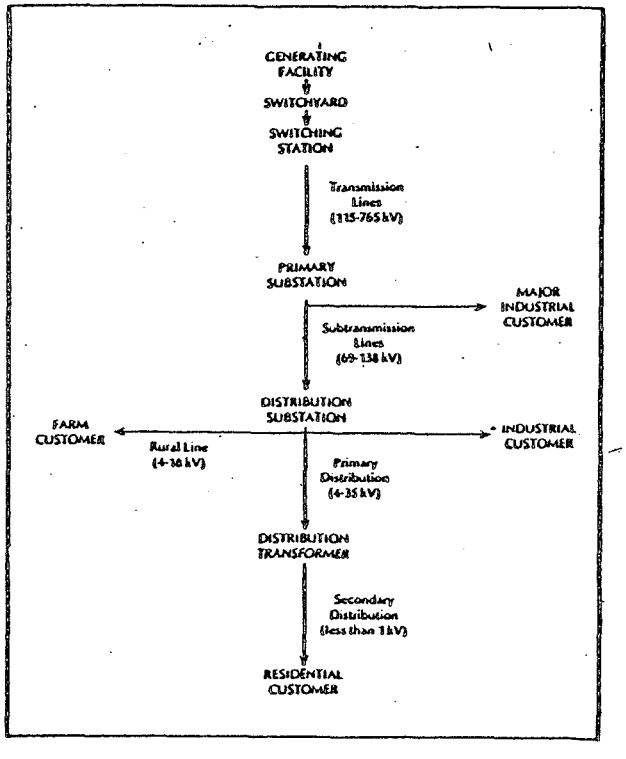
COMPONENTS OF AN ELECTRIC POWER SYSTEM



Source: Minnesota Energy Agency

FIGURE 1-2

SYSTEMS FLOW OF AN ELECTRIC POWER SYSTEM



Source: Berkshire County Regional Planning Commission

TABLE 1-1

1979 US ENERGY CONSUMPTION MIX
(Quadrillion Btu's)

Fuel	Residential and Commercial	Industrial	Transportation	Unaccounted Other	Electric Generation	Total
Coal	.177	2.933	-	-	10.835	13.945
Oil	6.393	8.108	21.361	-	3.811	39.673
Gas	7.433	8.576	.531	-	3.288	19.828
Hydro	-	.035[2]	-	-	2.934[1]	2.969
Nuclear	-	-	-	-	2.980	2.980
Total Primary	14.003	19.652	21.892	-	23.848[A]	79.395
Electric Usage	3.842	2.726	.020	.232	17.028[A]	-
Total	17.845	22.378	21.912	.232	17.028[A]	79.395

[A] Of the 23.848 primary energy input 17.26 becomes generation losses and the 6.588 is is distributed to the end use sectors.

Source: Energy Data Report DOE/EIA, April, 1979. All information from Energy Data Report DOE/EIA April, 1979, except the following:

1 DOE/EIA Annual Report to Congress, p. 119
2 DOE/EIA Annual Report to Congress, p. 121

TABLE 1-2

ELECTRICAL GENERATION AS A PROPORTION OF TOTAL ENERGY USED
AND PROPORTION OF END USE, U.S. (1950-1980)
(Million BBS/Day Oil Equivlent)

YEAR	ELECTRICAL GENERATION	TOTAL ENERGY USED (ALL FORMS)	PERCENT TOTAL	CONVERSION LOSSES	END USE (ELECTRICAL) RESIDENTIAL COMMERCIAL	INDUSTRIAL	PERCENT END USE OF TOTAL
1950	1.9	14.7	12.9%	1.4	0.2	0.2	21%
1960	3.4	19.5	17.4%	2.2	0.5	0.7	35%
1970	7.1	29.7	23.9%	4.6	1.3	1.2	35%
1980[1]	13.2	43.2	30.6%	8.2	2.8	2.1	37%

1. 1980 figures based on 1973 projections of the Joint Committee on Atomic Energy.

Source: Staff of JCAE, Understanding the'National Energy Dilemma', Joint Committee on Atomic Energy, United States Congress, August 1973 (Table above adopted from foldouts A, B, C, and D).

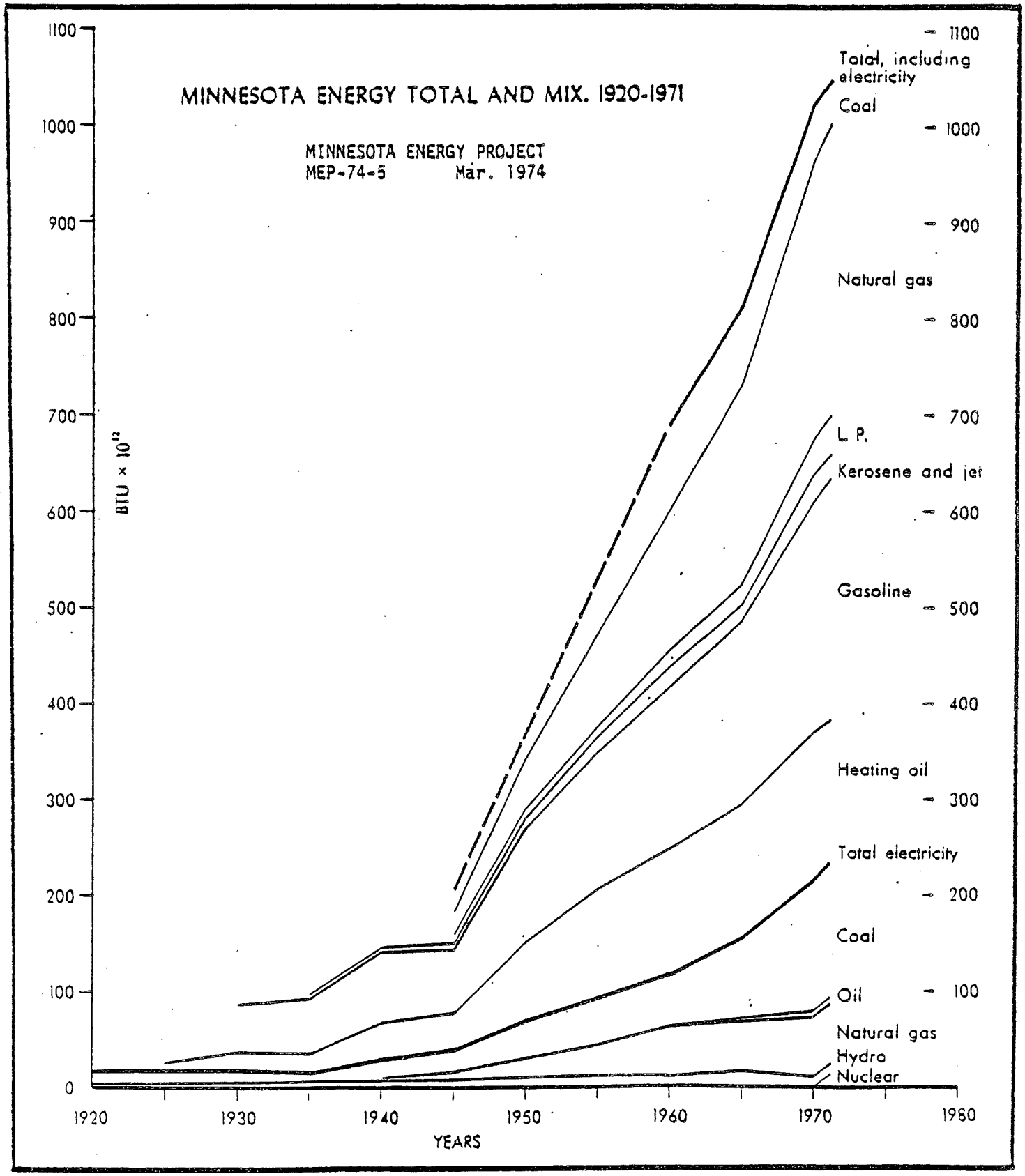
proportion of total energy used for the years 1950, 1965, 1973, and 1978. These two tables show that a substantial proportion of energy (17.0 of 79.40 quadrillion Btu's) goes into the generation of electricity and that the various sectors of the economy are increasingly relying on electricity as the most popular form of energy to be used. Figure 1-3 shows Minnesota's energy mix from 1920 through 1971.

The United States' consumption of electrical power has grown exponentially with a doubling time of about ten years since the fifties, which translates into an annual growth rate of about 7.4%.[7] However, since the early seventies, the rate of growth has decreased to less than 3%. Figure 1-4 shows this exponential growth rate. Table 1-3 demonstrates the marked expansion of electricity compared to total energy consumption as a function of population and GNP. Table 1-4 shows how electricity has become more popular than other forms of energy. Generally, the growth of per capita electricity consumption has increased faster than total per capita energy consumption and, while the cost of energy consumption per $1.00 of GNP has decreased, the cost of electricity per $1.00 of GNP has increased since 1920. Table 1-5 shows Minnesota's electric consumption as a function of population and GNP.

Tables 1-6 through 1-8 provide information on the control of electrical generation. Table 1-6 shows the annual production of electrical energy by type of ownership from 1955 through 1971. Table 1-7 depicts the number of generating plants by type of ownership and generating type operating in 1977. Table 1-8 shows the number of large electricity generating systems in Minnesota as of 1976. As may be seen, privately owned utilities (basically NSP) generate most of the electricity in Minnesota.

A fourth perspective on electrical energy use consists of examining the generating capacity of electrical utilities by fuel type. Table 1-9 shows the 1979 generating capacity by fuel type expressed in megawatts. Table 1-10 depicts the 1954 to 1977 growth of electrical utilities in generating capacity by fuel type measured in million kilowatt-hours. As is apparent, most electricity is

FIGURE 1-3

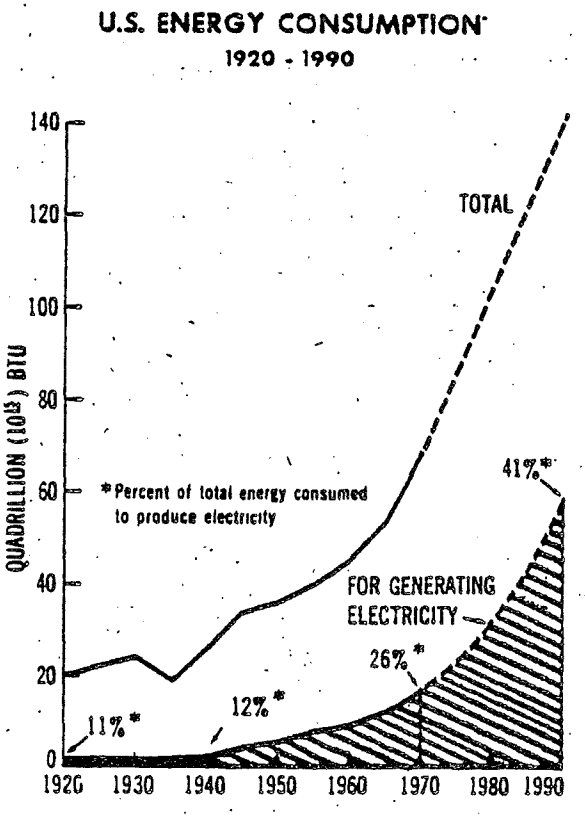


[Since 1970 the energy total and mix has increased only slightly. This indicates a decline in the rate of growth of energy consuption. Source: MEA.]

Source: Emmings, S., Minnesota - Historical Data on Fules and Electricity, Minnesota Energy Project Report MEP-74-18, December 1974.

FIGURE 1-4

EXPONENTIAL GROWTH IN THE ELECTRIC UTILITY INDUSTRY OF THE U.S.



Source: U.S. Federal Power Commission 1971

[Since]970 the growth rate in the Electric Utility industry has decreased substantially - from 7.4% to less than 3% Nation wide.]

TABLE 1-3.

MEASURES OF ELECTRICITY CONSUMPTION AS COMPARED TO TOTAL ENERGY CONSUMPTION, POPULATION, AND GNP, SELECTED YEARS, 1920-1978.

Year	Per Capita Energy Consumption (Million Btu)	Per Capita Electricity Consumption (kwh)	Energy Consumption (Thousand Btu) per $1 of GNP	Electricity Consumption (kwh) per $1 of GNP
1920	185.8	540	141.3	0.41
1930	181.1	944	121.5	0.63
1940	180.3	1,376	105.2	0.80
1950	224.3	2,564	96.1	1.10
1960	248.8	4,967	92.2	1.74
1965	276.4	5,948	87.1	1.87
1970	335.0	8,025	95.0	2.28
1975	331.8	8,118	88.6	2.14
1978	357.0	9,149	83.8	2.15

Source: Energy Research Needs, a report to the National Science Foundation prepared by Resources for the Future, Inc., in cooperation with MIT Environmental Laboratory, at I-7, table 1 (1971). GNP expressed in 1958 dollars, (1920-1970) and Minnesota Energy Agency (1975, 1978).

TABLE 1-4

TOTAL U.S. ENERGY CONSUMPTION AND ELECTRICITY CONSUMPTION, SELECTED YEARS, 1920-1978.

Year	Total Consumption (Trillion Btu)	Electricity Consumption (Trillion Btu)	Electricity Cons. as Percent of Total Energy Consumption
1920	19,782	196	1.0%
1930	22,288	396	1.8%
1940	23,908	621	2.6%
1950	34,154	1,332	3.9%
1960	44,960	2,896	6.4%
1965	53,785	3,949	7.3%
1970	68,810	5,624	8.2%
1975	70,710	5,920	8.4%
1978	76,010	6,821	8.7%

Source: Energy Research Needs, a report to the National Science Foundation prepared by Resources for the Future, Inc., in cooperation with MIT Environmental Laboratory, at I-7, table 1 (1971). (1920-1970) and Minnesota Energy Agency (1975, 1978).

TABLE 1-5

Minnesota Electric Consumption Compared to Total Energy Consumption, Population and GNP.

	Per Capita Energy Cons. (Billion Btu)	Per Capita Electric Cons. (MWH)	Energy per $1 of Real GNP (Thousand Btu)	Electricity per $1 of Real GNP (MWH)
1950		1.360		.432
1960	.214	2.646	55.097	.682
1965	.243	3.566	53.215	.781
1970	.282	5.349	53.051	1.007
1975	.311	6.670	54.977	1.177
1978		7.859		1.226[1]

[1]Estimated GSP in 1978

Source: Division of Data and Analysis, Minnesota Energy Agency, October 1, 1979

TABLE 1-6

ANNUAL PRODUCTION OF ELECTRICAL ENERGY
(By Type Of Ownership, And By Generator Type)

Million Kilowatt-Hours (1955 - 1971)

YEAR	TOTAL ALL PLANTS	TOTAL ALL UTILITIES	PRIVATELY-OWNED PLANTS			PUBLIC-OWNED PLANTS		
			Privately-Owned Utilities	Industrial Establishments	Subtotal	Municipal	Cooperatives	Subtotal
1971	20,334	17,434	15,896	2,900	18,796	1,417	121	1,538
1970	20,486	17,432	15,920	3,054	18,974	1,331	181	1,512
1969	19,628	16,693	15,284	2,935	18,219	1,198	211	1,409
1968	18,724	15,832	14,545	2,892	17,437	1,094	193	1,287
1967	16,760	13,925	12,674	2,835	15,509	1,023	228	1,251
1966	17,183	14,412	13,161	2,771	15,932	965	286	1,251
1965	15,652	13,041	11,813	2,611	14,424	944	284	1,228
1964	15,561	13,074	11,910	2,487	14,397	883	281	1,164
1963	14,227	11,956	10,788	2,321	13,109	869	299	1,168
1962	13,136	11,146	10,030	1,990	12,020	827	289	1,116
1961	12,094	10,241	9,229	1,853	11,082	785	227	1,012
1960	11,495	9,613	8,594	1,882	10,476	774	245	1,019
1959	10,019	8,517	7,523	1,502	9,025	793	201	994
1958	9,190	7,719	6,795	1,471	8,266	749	175	924
1957	8,875	7,653	6,718	1,222	7,940	766	169	935
1956	8,269	7,284	6,292	985	7,277	773	219	992
1955	7,335	6,643	5,666	692	6,358	735	242	977

Source: Emmings, S., Minnesota--Historical Data on Fuels and Electricity, Minnesota Energy Project, Report No. MEP-74-19, December 1974.

TABLE 1-7

MINNESOTA GENERATING PLANTS[1]

-1977-

Type of Generation and Ownership	Number of Plants	Nameplate Capacity (MW)
STEAM		
Private	15	4,429.3
Cooperative	1	46.0
Municipal	25	460.8
Industrial (self-generation)	6	430.8
Total	47	5,366.9
NUCLEAR STEAM		
Private	2	1,755.0
Cooperative	0	0
Municipal	0	0
Industrial (self-generation)	0	0
Total	2	1,755.0
HYDRO		
Private	17	133.3
Cooperative	0	0
Municipal	6	4.0
Industrial (self-generation)	1	14.0
Total	24	151.7
DIESEL AND GASOLINE		
Private	16	45.9
Cooperative	11	50.0
Municipal	53	272.1
Total	80	368.0
GAS TURBINE AND JET		
Private	9	842.9
Cooperative	0	0
Municipal	8	146.8
Total	17	989.7
GRAND TOTAL		8,631.3

[1] Includes Standby Plants.

Source: Minnesota Energy Agency

TABLE 1-8

LARGE ELECTRICITY GENERATION SYSTEMS IN MINNESOTA – 1976

Type	Name	Net Generation (GWh)	Percent	Year End Capacity (MW)
Private	Northern States Power (NSP)	21,255	68	4,864
Private	Minnesota Power & Light (MP&L)	4,258	14	846
Industrial	Erie Mining	1,311	4	225
Industrial	Reserve Mining	993	3	122
Private	Otter Tail Power (OTP)	874	3	179
Municipal	Rochester (ROCH)	435	1	147
Private	Interstate Power (ISP)	323	1	186
Industrial	Boise Cascade Paper	206	1	39
Municipal	Austin (AUST)	174	1	66
Industrial	Waldorf Paper Products	131	–	26
Municipal	Owatonna (OWAT)	113	–	34
Cooperative	United Power Association (UPA)	22	–	70
	Total of 12	30,095		6,804
	Generation by Others	1,257	5	570
	TOTAL	31,352		7,374

Source: Minnesota Energy Agency Data Base.

TABLE 1-9

1979 GENERATING CAPACITY BY FUEL TYPE
(Megawatts)

	Minnesota	USA (Lower 48)
Nuclear	1,755 (22%)	53,604 (9.9%)
Hydro	146 (2%)	73,936 (13%)
Oil	1,541 (19%)	151,317 (26%)
Coal	4,473 (55%)	228,889 (39%)
Gas	61 (1%)	74,892 (13%)
Other, unk.	163 (2%)	5,267 (1%)
	8,139	587,905

Source: Inventory of Power Plants in the United States, Department of Energy, April, 1979.

TABLE 1-10

GENERATION OF ELECTRICAL ENERGY BY ELECTRIC UTILITIES
IN MINNESOTA
(By Fuel)

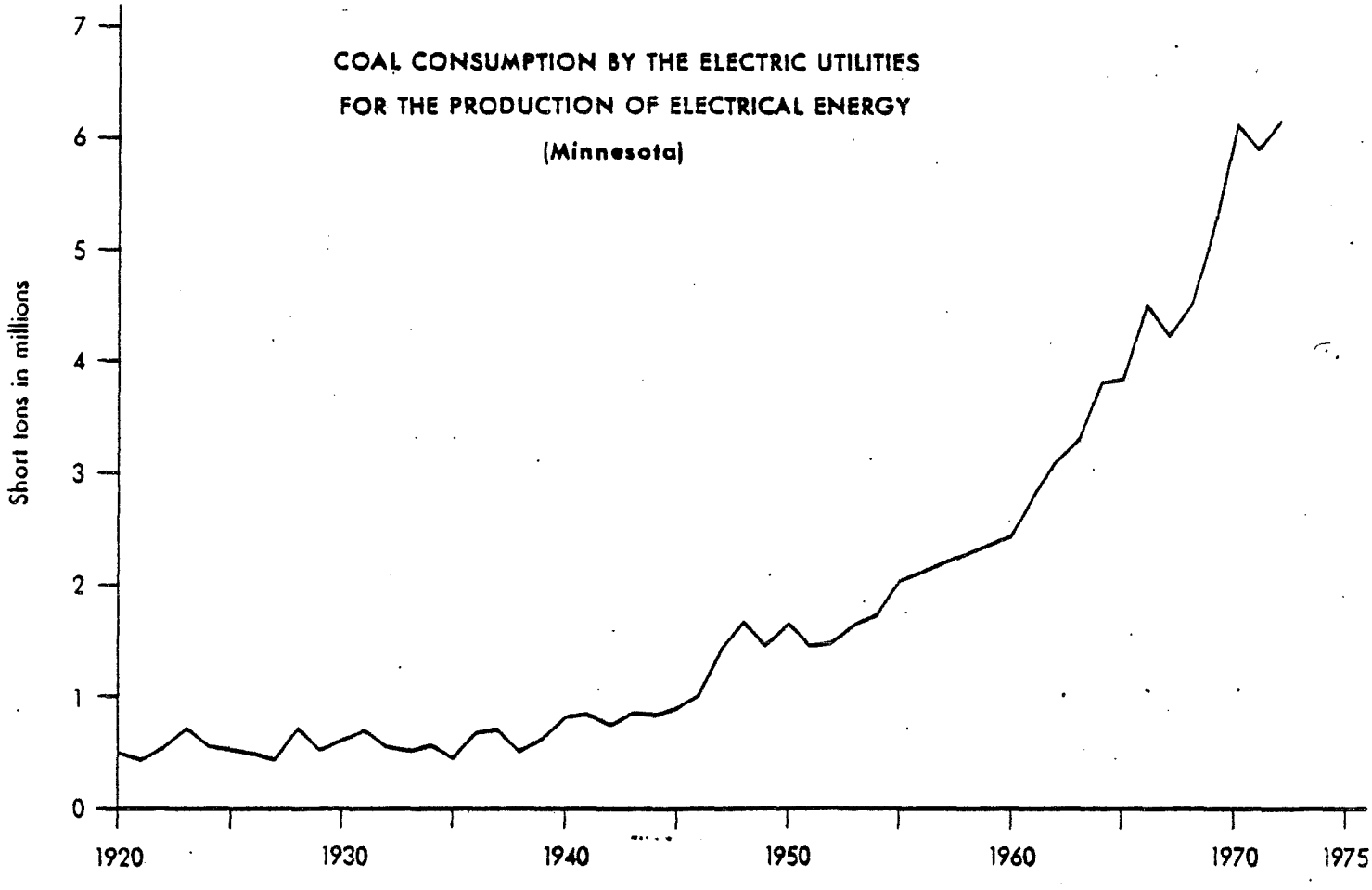
Million Kilowatt-Hours (1954 - 1977)

	Total Thermal[a]	Coal	Fuel Oil	Gas	Nuclear Fuel
1977	32,690	20,350	804	373	11,163
1976	27,884	16,199	783	992	9,910
1975	24,548	12,427	659	1,713	9,749
1974	21,430	13,383	679	3,005	4,363
1973	20,416	11,763	906	4,477	3,270
1972	19,383	10,532	963	4,329	3,559
1971	15,390	10,041	571	3,384	1,394
1970	16,687	11,204	674	4,809	-
1969	15,847	10,132	455	5,260	-
1968	14,979	9,227	331	5,406	15
1967	13,206	8,287	161	4,618	140
1966	13,412	8,910	149	4,224	129
1965	12,112	7,489	211	4,269	143
1964	12,272	7,546	208	4,462	56
1963	11,246	6,412	218	4,615	1
1962	10,341	6,184	178	3,979	-
1961	9,627	5,549	154	3,924	-
1960	8,867	4,681	186	4,000	-
1959	7,731	4,156	214	3,361	-
1958	6,899	3,382	199	3,318	-
1957	6,788	3,208	217	3,363	-
1956	6,536	3,672	214	2,650	-
1955	5,800	3,368	224	2,208	-
1954	5,103	2,731	231	2,141	-

[a] Excludes wood and waste burned as fuel.

Source: Emmings, S. Minnesota--Historical Data on Fuels and Electricity Minnesota Energy Project, Report No. MEP-74-18, Dec., 1974, and Minnesota Energy Agency (1971-1977).

FIGURE 1-5



Source: Federal Power Commission, *Electric Power Statistics*

generated by steam plants using coal. Figure 1.5 shows the increase in coal consumption in Minnesota by electrical utilities.

In 1978, Minnesota consumers purchased 1,56 billion kilowatt-hours of electricity, 21 percent more than they purchased in 1975 or more than double what they purchased in 1967.[8] Table 1-11 shows energy sales by electrical utilities to the consuming sector measured in million kilowatt-hours. Table 1-12 shows the percentage of electricity sales to different economic sectors in 1976. It is evident that the urban residential sector consumed 30% of all electricity in 1976, with the commercial, manufacturing, and mining sector consuming over half of the electricity.

B. Projected Trends in Electrical Use

Figure 1-4, supra, shows the exponential growth in electric consumption at a rate of 7.4% per year. This is equivalent to a doubling of electric consumption every ten years. However, since the early 1970's, the rate of growth in electric consumption has decreased substantially. Today, the official Department of Energy (DOE) annual demand growth projection is in the 4% range through 1995, but a number of officials place it in the 2½% range. The electric utility industry places it much higher. The Edison Electric Institute (EEI) predicts an average of 4.8% into 1988 and the National Electric Reliability Council predicts an average of 4.5% through 1998. The Washington Analysis Corporation, a subsidiary of Bache Halsey Stuart Shields, Inc. believes "that conservation will do a great deal to cut demand in coming years, as it has since the OPEC embargo of 1973, and we tend to feel that estimates placing growth significantly above 3% are unrealistic."[8A] The latest statistics would support this. The EEI's official 1979 summer peak loads show a minimal 0.5% gain over 1978. According to the EEI, this would make a 1979 demand growth rate of just over the 3% mark. Further, it lowers the average growth of the six post-embargo years to 2.96%, less than half the traditional 7% rate of the previous 20 years.[8B]

TABLE I-11

MINNESOTA ENERGY SALES OF ELECTRIC UTILITIES BY SECTOR
(By Consuming Sector)

Million Kilowatt-Hours (1952 - 1979)

Year	Total To Ultimate Customers	Residential	Commercial and Industrial		Street and Hwy. Lighting	Other Public Authorities	Railroads and Railways	Interdepartmental	Rural
Year		Residential	Small Light and Power	Large Light and Power					
1979	-	-	-	-	-	-	-	-	-
1978	31,563	11,385	5,212	14,259	241	404	-	62	-
1977	28,679	10,944	4,972	12,059	240	420	-	62	-
1976	28,106	10,652	4,814	11,875	244	453	-	68	-
1975	26,178	14,014	4,436	11,024	227	421	-	51	
1974	25,276	9,396	4,150	10,969	219	489	-	53	
1973	25,185	9,275	4,075	11,052	218	509	-	86	
1972	23,044	8,743	3,751	9,826	213	457	-	54	
1971	21,509	8,382	3,485	8,970	203	423	-	46	
1970	20,353	8,001	3,228	8,481	193	406	-	44	
1969	18,925	7,425	2,913	7,970	183	392	-	42	
1968	17,249	6,809	2,634	7,247	180	339	-	40	
1967	15,581	6,361	2,505	6,187	179	308	-	39	
1966	14,029	5,853	2,319	5,356	180	285	-	36	
1965	12,810	5,501	2,096	4,742	178	256	-	37	
1964	12,011	5,105	1,946	4,492	166	266	-	39	
1963	11,298	4,753	1,984	4,090	154	292	-	25	
1962	10,466	4,620	1,832	3,739	155	296	-	24	
1961	9,722	4,177	1,764	3,382	135	235	1	28	
1960	9,033	3,694	1,289	2,487	110	205	-	1	247
1959	7,775	3,445	1,320	2,459	110	211	-	-	230
1958	7,151	3,151	1,255	2,223	105	197	-	-	212
1957	6,956	2,926	1,218	2,331	101	184	1	-	195
1956	6,483	2,706	1,146	2,167	97	172	3	-	182
1955	5,946	2,464	1,045	2,008	93	164	5	-	167
1954	5,470	2,274	981	1,814	87	153	5	-	156
1953	5,251	2,054	1,013	1,809	85	146	5	-	139
1952	4,788	1,868	968	1,589	85	140	6	-	132

Source: Ewings, S. Minnesota--Historical Data on Fuels and Electricity, Minnesota Energy Project Report No. MEP-74-18,

ELECTRICITY SALES TO ECONOMIC SECTORS, 1976

Economic Sector	Percent
Rural	13%
Urban Residential	30%
Mining	10%
Manufacturing	22%
Commercial	21%
Street and Highway Lighting	1%
Other	3%
TOTAL	100%

Even with the decreased demand for electricity, there is still going to be long-term increases in the demand for electricity. A low increase of 2% annual increase in consumption would raise demand by close to 50% between now and the turn of the century. In addition, even if demand stopped growing, new power plants would still need to be built. Considerable oil and natural gas fired capacity would have to be replaced due to the retirement of obsolete equipment. The Fuel Use Act of 1978 (part of the National Energy Act of 1978) prohibits the use of natural gas or petroleum for new powerplants and prohibits the use of natural gas in existing powerplants after January 1, 1990.[8C]

It is, however, more realistic to examine demand growth by region than by nationwide averages. Certain areas of the country have faster demand rates than elsewhere. The main areas of rapid growth are the Southeast and Pacific Northwest. According to the EEI, these areas posted an increase in summer peak loads of 2.0% and 3.2%, respectively, in contrast to the 0.5% average nationwide.[8D]

The 1976 Advance Forecasting Report submitted to the Minnesota Environmental Quality Board (MEQB) by the Minnesota/Wisconsin Power Suppliers projected winter and summer peak demand growing at a rate of 6.6 and 6.8 percent, respectively. In the 1978 report this was revised downward to 5.1 and 5.0 winter and summer peak demand growth rates respectively.[9] This reduction in the rate of growth is equivalent to a doubling time of about 14 years.

At some point this growth in electrical demand must be translated into new generating plants. If electricity is substituted for diminishing petroleum supplies, then, as estimated by the Minnesota Energy Agency, anywhere from 17 to 20 new plants and their associated transmission lines would be needed between 1987 and 1995.[10] Others have suggested that anywhere from 12 to 25 (1,600-megawatt) plants may be needed in the next 25 years, though still others have suggested "demand is not growing rapidly now."[11] On a short-term basis, between four and six plants will be needed in the state by 1990 according to MEA projections. However, in light of recent data, probably not more than one new plant will be needed before 1990.[12]

At present, a number of new facilities have been proposed as well as a number of retirements. Table 1-13 summarizes the projected facility additions. Table 1-14 summarizes the projected facility retirements. It is apparent that a winter and summer addition of 4,815 and 5,728 megawatts respectively will be added with a winter and summer retirement of 478 and 564 megawatts respectively. This provides for a net increase for winter and summer capacity of 4, 37 and 5,164 megawatts respectively.

However, many people doubt Minnesota's ability to build four new plants let alone the 17 to 25 that may be necessary by the turn of the century. A number of constraints can affect the state's ability to build new plants. These include (1) fuel availability; (2) water supply; (3) environmental constraints such as air and water pollution and their impacts on public health; (4) the availability of capital for financing new plants; and (5) social constraints such as land use and public acceptability.

One of the more interesting aspects about the use of energy in the United States and, indeed, the industrialized portion of the world is that energy growth rate is exponential. This means that the rate of growth itself was increasing. Some have suggested that the growth process is self-accelerating, which means that the very use of energy seems to encourage the use of more energy. Nature is full of these self-propelled processes. However, none of them are perpetual. One may conclude, therefore, that exponential growth rates are an indication that the process has not yet encountered the forces which will change it, for example, the constraints noted above and the ability of the consumer to pay the increased prices for energy. Perhaps the revision of utility forecasts downwards is an indication that these forces are finally being felt.

TABLE 1-13

PROJECTED FACILITY ADDITIONS

Utility	Unit	Location	Earliest In-Service Date	Rated Capacity — MW			
				Summer	Winter	Type	Fuel
	Within Minnesota						
CPA	St. Bonifacius	St. Bonifacius	5/78	47	47	C.T.[a]	oil
UPA	Cambridge	Cambridge	5/78	21	23	C.T.	oil
UPA	Maple Lake	Maple Lake	5/78	21	23	C.T.	oil
UPA	Pine City	Pine City	5/78	21	23	C.T.	oil
MP&L	Clay Boswell #4	Cohasset	5/80	500	500	F.S.[b]	coal
NSP	Sherco #3	Becker	5/83[c]	800	800	F.S.	coal
MP&L	Floodwood	Floodwood Fine Lakes	11/84	800	800	F.S.	coal
NSP	Sherco #4	Becker	5/87[c]	800	800	F.S.	coal
NSP		unsited	5/89[c]	800	800	F.S.	coal
	Outside Minnesota						
MP&L	Milton R. Young	Center, ND	5/77	408	408	F.S.	lignite
UPA/CPA	Coal Creek 1	Coal Creek, ND	11/78	469	470	F.S.	lignite
UPA/CPA	Coal Creek 2	Coal Creek, ND	11/79	466	466	F.S.	lignite
NSP	Manitoba Hydro Transmission Line	Winnipeg	5/80	575	−345	NA	

TABLE 1-14

PROJECTED FACILITY RETIREMENTS

Utility	Unit	Location	Retirement Date	Rated Capacity — MW			
				Summer	Winter	Type	Fuel
MPC	Warroad	Warroad	83	2.3	2.3	diesel	oil
MPC	Little Fork	Little Fork	83	1.0	1.0	diesel	oil
NSP	Dodge Center	Dodge Center	12/82	1.8	1.8	diesel	oil
NSP	Excelsior	Excelsior	12/82	4.0	4.0	diesel	oil
NSP	Glenwood	Glenwood	12/82	3.9	3.9	diesel	oil
NSP	New Richland[d]	New Richland	12/82	1.7	1.7	diesel	oil
NSP	Red Wing 1 and 2[d]	Red Wing	12/82	28.0	25.0	fossil	coal
NSP	St. James	St. James	12/82	2.0	2.0	diesel	oil
NSP	Wilmarth 1 and 2[d]	Mankato	12/82	28.0	25.0	fossil	coal
NSP	Pipestone	Pipestone	12/83	2.9	2.9	diesel	oil
NSP	Tracy	Tracy	12/83	1.8	1.8	diesel	oil
NSP	High Bridge 3 and 4[d]	St. Paul	12/84	113.0	100.0	fossil	coal
NSP	Riverside 1, 2 and 6[d]	St. Paul	12/84	150.0	107.0	fossil	coal
NSP	Mobile	Winona	12/86	1.6	1.6	diesel	oil
NSP	Black Dog 1[d]	Minneapolis	12/87	75.0	70.0	fossil	coal
NSP	Minnesota Valley[d]	Granite Falls	12/88	47.0	47.0	fossil	coal
NSP	Black Dog 2[d]	Minneapolis	12/89	100.0	81.0	fossil	coal
				564.0	478.0		

[a]Combustion turbine.
[b]Fossil steam.
[c]In-service dates according to NSP February 1978 statement. Dates subject to Agency review.
[d]A portion of the summer generating capacity will be lost prior to retirement due to the unavailability of natural gas for electric generation.

Source: MEA Database: Report to the FERC MARCA, "R-362 Appendix A."

1.2 Economic Regulation

One often hears in any discussion of utility regulation that utilities are "natural" monopolies. A monopoly is a situation where there is a single source of supply. There are a number of economic reasons why monopolies arise. "Natural" monopolies are said to have arisen out of conditions of economic warfare, which results in the survival of a single victor, the monopolist. These conditions occur in situations where the competing firms are producing their product at higher than the minimum level of average cost and begin to exercise a human proclivity to cut price to increase output and reduce average costs. Electrical utilities are an example of an industry where, in its infancy, costs behaved in this fashion. Industries where costs behave in this fashion are called "natural" monopolies.

A firm or industry may also become monopolistic because it is awarded a market franchise by a government agency. The firm is granted an exclusive franchise to produce a specified good or service in a particular area. In these situations, the firm agrees to permit the government to regulate certain aspects of its behavior and operations in exchange for the exclusive franchise. In this instance, the monopoly (often called a "public service industry") is created by the government.

The number of industries that are included within "public service industries" expands as conditions change. The relationship of government to public service industries is clearly different from its relationship with other industries. In general, people may, within limits, engage in whatever industrial activities they choose, serve whom they please, and charge what they want. These other industries are not directly regulated; rather, reliance is placed upon the competitive activities of self-serving individuals for an abundance of goods and services at prices fixed (in theory at least) by the costs of production. Government, except when trying to attain certain social goals, is mainly concerned with the rules of the game (i.e., unfair methods of competition and practices which restrain free competition).

Government does not treat public service industries in the same way it treats perfectly competitive industries. First, government restricts entry into the field by requiring the former industries to have a license or permit. In addition, public service industries must serve all who apply and are willing to pay the fixed rates and they may not abandon service without the consent of the government. The purpose of government intervention is to correct inadequate competitive forces and to satisfy public concerns not reflected in the market. It should be noted that often in the past government intervention has simply been a response to the power of special interests groups. Government intervention may be economic, political, or both.

In sum, monopolies differ from firms operating competitively (according to accepted microeconomic theory) in many ways. Most importantly, monopolies tend to use society's resources less effectively than perfectly competitive industries. In addition, the output of a perfectly competitive industry tends to be greater and prices tend to be lower than under monopoly.

Generally, state and local regulatory commissions control the price (by setting rates to cover costs and to allow for a fair profit) and eliminate competition. In return, the electric utility is legally responsible for anticipating and meeting demand. Of course, since utilities are obligated to maintain reliable service, regulators are obliged to raise rates to cover costs. Recently, state and local governments have become increasingly involved with site selection and coordination for energy facilities. (See Chapter Two for more details about Minnesota regulation.)

A. Brief History of Government Regulation of Price

The regulation of certain industries and markets by government did not "just happen" in the last third of the ninteenth century. Government regulation (often translated as interference) has been traced as far back as the Roman Empire. During the decline of the Empire, the Roman government set maximum prices on over 800 articles of trade.[13] Saint Augustine believed that legitimate trading implied a "just price" by the producer.[14] During the Middle Ages, most towns had regulations to secure fair prices, maintain wages, set standards of quality, and to protect trade

masters from competition.[15] English common law recognized certain trades as "common callings" which required Royal Charters and which, therefore, were subject to official control.[16] Lord Chief Justice Hale wrote around 1670 that when private property is "affected with a public interest, it ceased to be juris privati only. . . Property does become clothed with a public interest when used in a manner to make it of public consequence, and affect the community at large."[17] By 1774, eight of the thirteen colonies had fixed the price of nearly every commodity.[18] However, by the time the constitution was ratified in 1789, such government control ended. During the first two-thirds of the nineteenth century, government regulation was thought unnecessary. Economic attitudes reflected the theories of Social Darwinism (survival of the fittest). As more and more corporate abuses occurred, particularly by the railroads, demand for government controls toward the end of the ninteenth century in America became more vocal.

When government regulation of industry was re-established in the United States, there were many constitutional challenges. The first case in which the Supreme Court established the constitutionality of rate regulation was Munn v. Illinois in 1877. The court ruled that "property does become clothed with a public interest when used in a manner to make it of public consequence, and affect the community at large. . . When private property is devoted to a public use, it is subject to public regulation." However, "it is not everything that affects commerce that amounts to regulation of it, within the meaning of the Constitution."[19]

Industries which may properly be subject to public regulation do not fall into a fixed category in this Supreme Court decision. The phrase "clothed with a public interest" is used to describe these industries, but when and under what circumstances is a business so clothed with a public interest as to justify public regulation? The court in Wolff Packing Co. v. The Industrial Court of Kansas pointed out three classes of industries said to justify some public regulation:

(1) industries carried on under a public grant of privileges; (2) industries of exceptional calling recognized as public from earliest times; and (3) businesses not public in their inception but which have risen to such and have in consequence been subjected to government regulation.[20]

The next step in permitting states to regulate industry was the Supreme Court's ruling in Nebbia v. New York in 1934. The court ruled that the state's authority was based on the policy power and appears to be nearly unlimited:[21]

> There can be no doubt that upon proper occasion and by appropriate measures the state may regulate a business in any of its aspects, including the prices to be charged for the products or commodities it sells. So far as the requirement of due process is concerned, and in the absence of other constitutional restrictions, a state is free to adopt whatever economic policy may be deemed to promote public welfare.

Characteristics often pointed out as distinctive of industries affected with a public interest are (1) the enjoyment of a franchise; (2) the existence of a monopoly; and (3) the necessary nature of its services. These characteristics in and of themselves are insufficient to justify regulation.[22-24] The court has indicated that the right of a state to regulate is dependent not just upon the category to which an industry belongs, but also upon the complex rights and duties imposed upon any industry owing to some peculiar relation to the public. The court has never set up a distinct category of public utilities and has held that the concept of public utilities is not static.

Today, public utilities are regulated, limited monopolies. They are monopolies because in most instances the government awards a market franchise to only one utility (called a "certificate of public convenience and necessity") to provide a particular service in a specific locality. They may be limited as monopolies where there is inter-industry competition such as product substitution (e.g., natural gas for electricity) and under certain circumstances competition between the types of a public service industry. An example of this competition is that for services between investor owned, government owned, and cooperatively owned electric utilities. In addition, in most states, including Minnesota, utilities are regulated by public commissions.

B. Energy Pricing and Resource Allocation: A Note

There are a number of policy and institutional problems affecting the processes by which energy decisions are made. Resources for the Future in their latest study Energy in America's Future: The Choices Before Us identified six key problems" (1) pricing energy services; (2) determining the magnitude and type of expenditures in energy-related matters; (3) achieving fairness to all parties in energy related matters; (4) defining intergovernmental relations; (5) dealing with uncertainties about the effects of policies; and (6) the whole class of issues that economists lump together as 'market failure,' embracing the inability of an unsupervised market to reflect or respond promptly to social costs and needs."[24A] Energy pricing reform can address a number of these problems. The purpose of this section is to provide a brief overview of the effects of energy pricing on energy policy.

The importation, production, and consumption of energy impose significant unpaid costs on the economy which must be considered in decisions by producers and consumers. This can be done by including, what has traditionally been unpaid costs in the price of energy. Two such costs, for example, are (1) "the insecurity and other international costs of importing oil: and (2) the damage done to the public health, safety and environment, even after protective measures have taken place, and which are already reflected in the market price.[24B] It is generally recognized that cost internalization should take place where a relationship between damages and remedies can be realized.[24C]

A major element in establishing proper energy pricing is to assure each consumer that he will pay the incremental cost of the energy he consumes. Presently, energy suppliers earn their revenues based on the costs they incur in providing their services. As a result, consumer charges are based on the average cost of all facilities and purchased products provided by the supplier. The incremental or marginal cost is the actual cost incurred when demand requires an expansion of capacity. Because of inflation, the rising relative prices of energy, and the rising costs of capital, utility revenues are below the true market value of the

services they sell. Marginal cost pricing has the objective of efficiency and waste avoidance by pricing the service at its true market value.[24D]

The marginal cost is defined as the increase in total cost occasioned by the production of an "infinitesimally small" increment of product, which in the context of the electric utility industry is the anticipated cost of producing and selling a kilowatt or kilowatt-hour of electricity. This type of costing can consider costs saved by reducing output or costs that will be experienced by increasing output, something that cannot be estimated using historical costs. Basing rates on the estimated incremental costs of providing service reflects the cost to society of producing one more unit of goods or services and results in an optimum allocation of resources. As a result, when prices are set to incremental costs, the consumer, in deciding whether or not to purchase the service, "is essentially comparing what the additional unit is worth to him with what it costs society to produce it."[24E]

When a consumer pays the price, based on marginal cost pricing, the value of the service to him is at least equal to the value of the resources utilized to produce it. "When the price is below [the marginal] cost, this indicates that some consumption is being subsidized, which is wasteful of resources....when the price is above [the marginal] cost, too few resources are being employed, and there is inefficient restriction of consumption."[24F] The Federal Power Commission (now the Federal Energy Regulatory Commission) recognizing this resource issue, is developing an efficient, conservation based energy policy:[24G]

> [T]he Commission seeks to develop, through general comment and public participation...the role of rate design in the conservation and efficient utilization of energy resources; and the areas of public or governmental policy which may influence or control the foregoing
> ....
>
> ....Increased energy demands and public concerns for environmental protection necessitate new technological approaches to the electric energy supply problem and possibly new rate designs which more accurately take into account the environmental costs of producing and distributing ever larger quantities of electricity....

> In broad context, conservation of energy resources necessitates particular consideration of...the appropriateness of existing rate designs in the conservation of electricity; and the development of increased capacity on the part of all persons to comprehend for foregoing relationship.... (emphasis not added)

The regulatory process used by federal, state, and local governments decides how much revenue a utility may have. These regulatory processes are designed to prevent public utilities from exercising to their full monopoly power that they would otherwise enjoy. In addition, regulation attempts to require all consumers to share fairly in providing revenues to the public utility. The determination of what is "fair" has traditionally been defined as that share which roughly contributes in proportion to costs incurred in servicing their class. "From the point of view of economic efficiency and the wise use of energy,....marginal cost pricing would be preferable."[24H]

The goal of efficiency has two components. First, that fuel is consumed at a rate such that the value it produces is equal to its replacement cost. Second, that the charge for capitol services is fully borne by those who create the incremental demand. Though it is recognized that no one set of procedures is perfect, a number of approaches could be implemented. First, the underpricing of fuel could be rectified by the imposition of excise taxes and through the use of regulatory discrimination in assigning fuel costs by using peak load pricing, excise taxes, and changes in the rate structure.[24I]

In sum, effective energy policy requires a pricing system which takes into account the actual worth of that energy to consumers, informs consumers what energy is costing the society, and informs producers and importers of this. When energy is priced below these costs, then consumers, as a group, use too much of it. As a result, the society gives up benefits by doing without other commodities and services that are worth more than the satisfactions of that last unit of energy consumed. The present U. S. energy pricing system fails to meet the fundamental test for rational energy decisions because price signals fail to reflect marginal costs. Electricity is an example of this. Electricity is priced at the average historical cost rather than at current marginal prices. Because of regulation,

different producers and consumers receive or pay greatly different prices for the same commodity. Despite efforts to avoid environmental impacts, such impacts do exist, and the unpaid environmental costs from energy production and use remain. When compared to the use of marginal cost pricing, more energy is being consumed, more energy is being imported, and inefficient patterns of energy production and consumption by form and location continue to exist. The existing energy pricing system has thus lowered the potential output of the economy and lessened the total goods and services available to consumers.[24J]

Full marginal cost pricing would make energy choices much easier, besides increasing the potential output of the economy. It would (1) provide such information on supply and demand responses which are presently unavailable or too costly to acquire; and (2) reduce the size and complexity of policy issues that the government must consider. This second point would occur because individual choice would automatically replace much of the uncertain models, questionable data, and lack of knowledge that present decisions are based on.[24K]

1.3 Federal Regulation of Electrical Energy

Federal, state, and local governments make many decisions which affect energy policy. The laws and regulations enacted by legislative bodies and promulgated by agencies were established over a period of about 60 years. These regulatory activities were in response to a wide variety of social problems, from monopolistic corporate practices to the availability of electricity to environmental concerns--not because of any national recognition for the need to establish an energy policy.

Prior to World War I, the public believed that competition would keep electrical prices down and that, therefore, there was no need for regulation. Operating under this assumption, municipalities and states granted franchises and issued licenses for the formation of many small power companies. The result was not healthy competition to keep down the cost of electricity, but the emergence of one large strong company buying or forcing out the smaller companies; this led to the formation of monopolies within service areas. As a result of this trend, governments and economists began viewing electrical utilities as "natural monopolies." The government responded by regulating utilities through public commissions.[25]

In 1907 state regulation of electricity began in New York. By 1922, 47 states and the District of Columbia were regulating electrical utilities. The laws in these states varied considerably, and consequently, while many utilities were regulated in the public interest, some commissions were "captured" by the utilities and became their pawns. Those utilities which were not sufficiently regulated imposed upon the consumers high prices and poor service.[26]

Prior to 1935, federal regulation of electrical utilities was for all practical purposes confined to the control of licenses of hydro-electric projects in the navigable waters of the nation. The Rivers and Harbors Act of 1890 prohibited the creation of any obstruction in navigable waters. This required hydro-electric utilities to secure congressional approval for any hydro-electric power plant site.

Such approval was not readily obtained, because Presidents Roosevelt and Taft had required strict provisions for the protection of the public interest. As a result, unrestrained exploitation of the nation's water resources was prevented. Because the utilities were for the most part unwilling to comply with the regulatory measures the development of hydro-electric power proceeded slowly until the passage of the Federal Power Water Act of 1920. This act created the Federal Power Commission (FPC) which oversaw the issuance of licenses for hydro-electric power. Since 1920, the development of hydro-electric power has proceeded at a faster rate.[27]

Federal regulation of interstate commerce of electricity, other than that for licenses for hydro-electric power, was undertaken for the first time with the passage of the Public Utility Act of 1935. The following is a brief summary of the interstate commerce provisions of the act:[28]

1. Division of the country into regional districts for the voluntary interconnection of generating and transmission facilities to assure an abundant supply of electricity throughout the United States with the utmost economy. Promotion and encouragement of interconnections both within and between districts is ordered. In time of war or other emergency, the Commission is empowered to require temporary interconnections.

2. Denial to public utilities subject to the Federal Water Power Commission of the privilege of selling, leasing, or otherwise disposing of property whose value is in excess of $50,000 or of merging or consolidating without first getting an authorization from the Federal Power Commission to the effect that the proposed action is consistent with the public interest.

3. Exercise of jurisdiction over security issues and assumption of corporate liabilities of public utilities that are engaged in the interstate transmission and sale of electric energy and that are not regulated by a state commission.

4. Supervision over rates and charges for electric energy transmitted across state lines and sold wholesale for resale by utilities under the jurisdiction of the Federal Power Commission.

5. Cooperation with state commissions in investigating the cost of production and transmission by means of interstate facilities beyond jurisdiction of the requesting state.

6. Provision of a plan for cooperation with state commissions, including procedure for joint hearings and the creation of joint

boards, to consider matters of mutual interest arising under the Federal Water Power Act.

7. Revision of the uniform system of accounts for public utilities and licensees subject to the jurisdiction of the Federal Power Commission. Insofar as is practicable, federal agencies engaged in the generation and sale of electric energy for ultimate distribution to the public are to be subject to these accounting rules.

8. Requiring public utilities to carry adequate and proper depreciation accounts and giving the Federal Power Commission authority to determine and fix the rates of depreciation to be charged against the property of licensees.

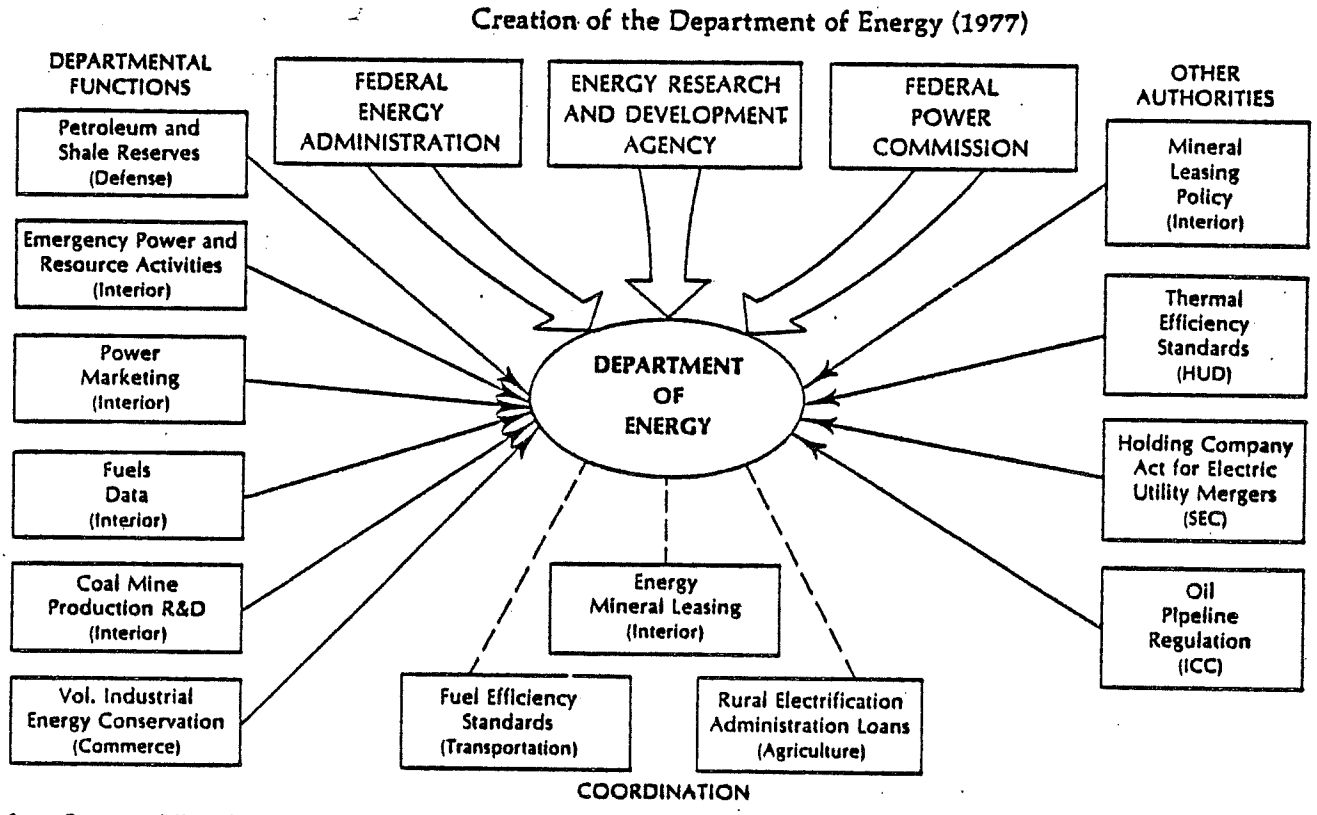
9. Provisions against interlocking directorates in utilities and financial or other institutions handling their securities.

Also in the mid-1930s, the federal government started to generate power. In 1933, President Roosevelt signed the Tennessee Valley Authority Act, which was followed by the creation of the Bonniville Power Administration to build hydro-electric plants on the Tennessee River and Columbia River, respectively. Two years later the president created (with the approval of Congress) the Rural Electrification Administration (REA) within the Department of Agriculture; the REA issued loans to cooperatives for the electrification of rural areas. Roosevelt first approached private companies and municipalities before setting up Rural Electric Cooperatives (REAs). The private utilities turned him down arguing that it wasn't profitable. Many utilities felt the constitution prohibited municipalities from selling electricity beyond their borders. Consequently, Generation and Transmission Cooperatives and Rural Electric Cooperatives (distribution) were the only alternatives.

Since 1935 the federal government has enacted a wide variety of laws regulating electrical utilities and created a host of federal agencies to implement the policies established. A summary of the federal laws relating to electric utilities is provided in Table 1-15. Each of these laws has varying degrees of impact on the state's ability to regulate electrical utilities. There are five functional areas of agency responsibility: (1) policy development and program coordination; (2) regulation of the energy sector including economic controls,

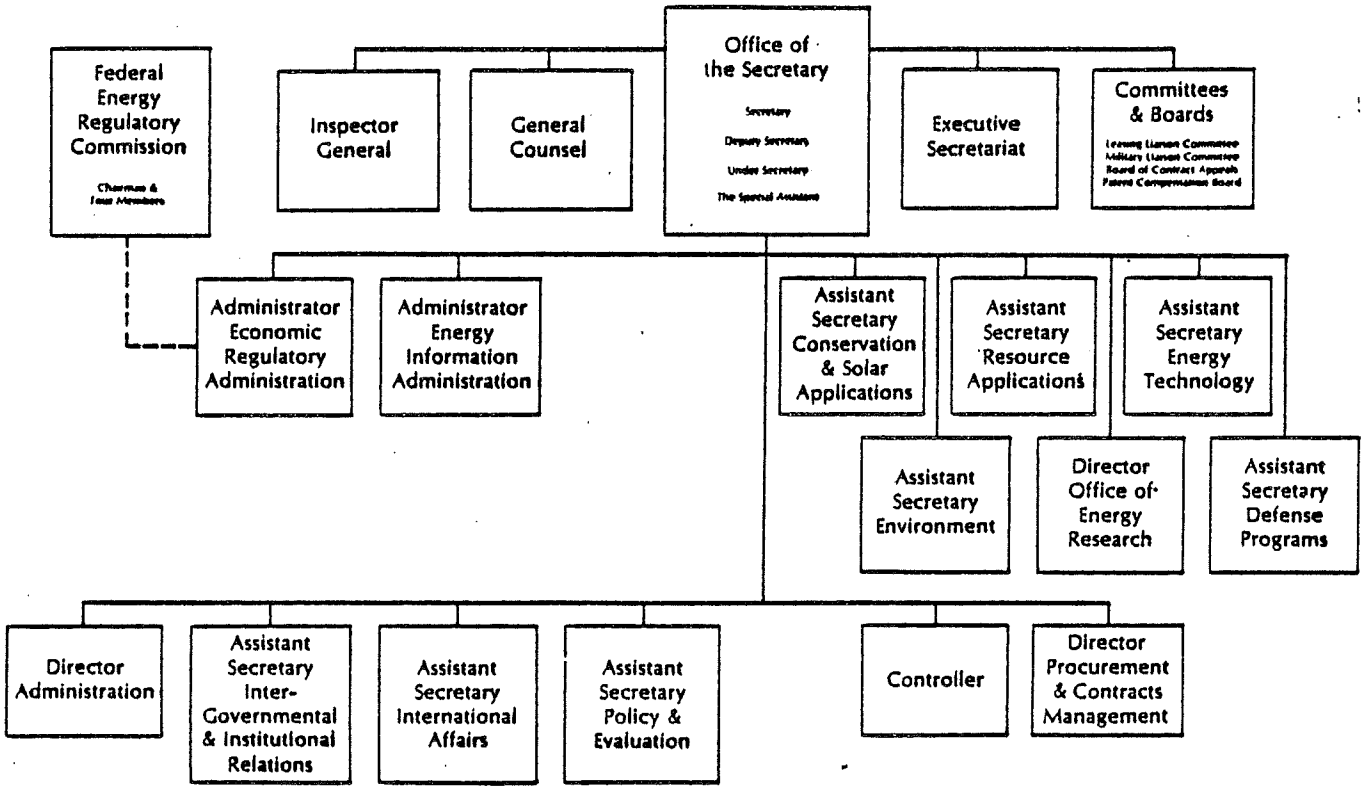
fuels allocation, and import controls, facility siting, and land use, and environmental and safety regulations; (3) research and development; (4) energy resource development; and (5) energy conservation.[30] Figures 1-6 and 1-7 show the sources of responsibility placed in the Department of Energy and the organization of DOE, respectively. All but the Federal Energy Regulatory Commission (FERC), and the former Federal Power Commission, and all of the FPC authority (except the authority to set fuel prices) has been placed in DOE.

FIGURE 1-6



Source: Executive Office of the President.

FIGURE 1-7



Source: Department of Energy, *Organization and Functions Fact Book*, September 1977.

SUMMARY OF FEDERAL ELECTRIC ENERGY LAW

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
1. PUBLIC UTILITIES REGULATORY POLICIES ACT OF 1978 (P.L. -) (PURPA)		
§ 2	Findings. The Congress finds that the protection of public health safety, and welfare, the preservation of national security, and the proper exercise of congressional authority under the Constitution to regulate interstate commerce require— (1) a program providing for increased conservation of electric energy, increased efficiency in the use of facilities and resource by electric utilities, and equitable retail rates for electric consumers, (2) a program to improve the wholesale distribution of electric energy, the reliability of electric service, the procedures concerning consideration of wholesale rate applications before the Federal Energy Regulatory Commission, the participation of the public in matters before the Commission, and to provide other measures with respect to the regulation of the wholesale sale of electric energy, (3) a program to provide for the expeditious development of hydroelectric potential at existing small dams to provide needed hydroelectric power, (4) a program for the conservation of natural gas while insuring that rates to natural gas consumers are equitable, (5) a program to encourage the development of crude oil transportation systems, and (6) the creation of certain other authorities as provided in title VI of this Act.	
§ 4	Relationship to Antitrust Laws. Nothing in this Act or in any amendment made by this Act affects— (1) the applicability of the antitrust laws to any electric or gas utility, or (2) any authority of the Secretary or of the Commission under any other provision of law (including the Federal Power Act and the Natural Gas Act) respecting unfair methods of competition or anti-competitive acts or practices.	
Title I	Retail Regulatory Policies for Electric Utilities	
§ 101	The purposes of this title are to encourage— (1) conservation of energy supplied by electric utilities; (2) the optimization of the efficiency of use of facilities and resources by electric utilities; and (3) equitable rates to electric consumers.	This title supplements state law.
§ 102	This title applies to any electric utility if total sales, other than resale, exceed 500 million kilowatt-hours per calendar year.	
§ 111	Federal rate standards. (1) Rates shall reflect actual costs of service to classes. (2) Prohibits declining block rates for the energy component of a rate if the total KWH consumption for class increases during period except if utility demonstrates that costs decrease as KWH consumption increases. (3) Requires time of day rates for classes except where such rates are not cost-effective.	Each state agency or non-regulated utility which sets rate shall consider federal standards and determine

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
PURPA (cont.)	(4) Rates for each class shall reflect seasonal differences. (5) Utilities must offer industrial and commercial classes an interruptible rate; and (6) Each utility must offer consumers load management techniques as state agency or non-regulated utility determines are practical, cost-effective, reliable or provide useful energy or capacity management advantages to utility.	appropriateness to implement standards by public hearings.
§ 112	Each state agency or non-regulated utility may reflect standards in section 111 in any proceeding before two years if requested.	State agency non-regulated utility must consider standards within two years.
§ 113	Establishes federal standards on (1) master metering; (2) automatic adjustment clauses; (3) information to consumers; (4) procedures for termination of electric service; and (5) advertising.	Requires states and non-regulated utilities to adopt standards within two years.
§ 114	States may set lower standards for residential consumers for essential needs.	State or non-regulated utility must determine to implement lower standards within two years.
§ 115	Provides special rules for section 111 standards numbers 1, 3, and 6 and section 113 standards numbers 1, 2, 3, and 5.	
§ 116	Requires reports from state agencies and non-regulated utilities.	
§ 117	This title does not affect the rate of return to utilities or state from adopting standards.	
§ 121	The public and utilities can intervene as a matter of right.	
§ 122	If the consumer contributes to his position in any proceeding before a state agency regulating rates, then the utility pays the costs.	
§ 141	Amends section 207 of Title II of the Energy Conservation and Production Act to provide assistance to state agencies which set electric rates.	State may get federal assistance and set rates.
Title II	Certain FERC and DOE Authorities	
§ 202	Interconnection. Part II of the Federal Power Act is amended by adding the following new section at the end thereof: CERTAIN INTERCONNECTION AUTHORITY Sec. 210. (a)(1) Upon application of any electric utility, Federal power marketing agency, qualifying cogenerator, or qualifying small power producer, the Commission may issue an order requiring—	State may apply for order.

TABLE ... (continued)

UMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
	(A) the physical connection of any cogeneration facility, any small power production facility, or the transmission facilities of any electric utility with the facilities of such applicant, (B) such action as may be necessary to make effective any physical connection described in subparagraph (A), which physical connection is ineffective for any reason, such as inadequate size, poor maintenance, or physical unreliability, (C) such sale or exchange of electric energy, or other coordination, as may be necessary to carry out the purpose of any order under subparagraph (A) or (B), or (D) such increase in transmission capacity as may be necessary to carry out the purposes of any order under subparagraph (A) or (B).	
§ 203	Wheeling. Part II of the Federal Power Act, as amended by section 202 of this Act, is further amended by adding the following new section at the end thereof: CERTAIN WHEELING AUTHORITY Sec. 211. (a) Any electric utility or Federal power marketing agency may apply to the Commission for an order under this subsection requiring any other electric utility to provide transmission services to the applicant (including any enlargement of transmission capacity necessary to provide such services). (b) Any electric utility, or Federal power marketing agency, which purchases electric energy for resale from any other electric utility may apply to the Commission for an order under this subsection requiring such other electric utility to provide transmission services to the applicant (including any increase in transmission capacity necessary to provide such services). (c)(1) No order may be issued under subsection (a) unless the Commission determines that such order would reasonably preserve existing competitive relationships. (2) No order may be issued under subsection (a) or (b) which requires the electric utility subject to the order to transmit, during any period, an amount of electric energy which replaces any amount of electric energy which— (A) the applicant electric utility is required by contract to purchase from the utility subject to such order during such period; or (B) the utility subject to the order is required by contract to provide to the applicant electric utility during such period. (3) No order issued under subsection (a) or (b) may require transmission of electric energy to an electric utility which sells electric energy for purposes other than resale, in violation of any exclusive retail marketing area requirement established by State statute or established by a State agency in accordance with a State statute. (d)(1) Any electric utility ordered under subsection (a) or (b) to provide transmission services may apply to the Commission for an order permitting such electric utility to cease providing all, or any portion, of such services.	State may apply for order.

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
§ 204	General Provisions Regarding Interconnection and Wheeling. Sec. 212. (a) No order may be issued by the Commission under section 210 or subsection (a) or (b) of section 211 unless the Commission determines that such order— (1) is not likely to result in a reasonably ascertainable uncompensated economic loss for any electric utility, qualifying cogenerator, or qualifying small power producer, as the case may be, affected by the order; (2) will not place an undue burden on an electric utility, qualifying cogenerator, or qualifying small power producer, as the case may be, affected by the order; (3) will not unreasonably impair the reliability of any electric utility affected by the order; and (4) will not impair the ability of any electric utility affected by the order to render adequate service to its customers.	
§ 205	Pooling. (a) STATE LAWS.—The Commission may, on its own motion, and shall, on application of any person or governmental entity, after public notice and notice to the Governor of the affected State and after affording an opportunity for public hearing, exempt electric utilities, in whole or in part, from any provision of State law, or from any State rule or regulation, which prohibits or prevents the voluntary coordination of electric utilities, including any agreement for central dispatch, if the Commission determines that such voluntary coordination is designed to obtain economical utilization of facilities and resources in any area. No such exemption may be granted if the Commission finds that such provision of State law, or rule or regulation— (1) is required by any authority of Federal law, or (2) is designed to protect public health, safety, or welfare, or the environment or conserve energy or is designed to mitigate the effects of emergencies resulting from fuel shortages.	FERC may exempt electric utilities from state law.
§ 206	Amends section 202 of the Federal Power Act for additional electric utility reporting.	
§ 210	Cogeneration and small power production. FERC may establish rules. (a) RATES FOR PURCHASES BY ELECTRIC UTILITIES.—The rules prescribed under subsection (a) shall insure that, in requiring any electric utility to offer to purchase electric energy from any qualifying cogeneration facility or qualifying small power production facility, the rates for such purchase— (1) shall be just and reasonable to the electric consumers of the electric utility and in the public interest, and (2) shall not discriminate against qualifying cogenerators or qualifying small power producers. No such rule prescribed under subsection (a) shall provide for a rate which exceeds the incremental cost to the electric utility of alternative electric energy. (c) RATES FOR SALES BY UTILITIES.—The rules prescribed under subsection (a) shall insure that, in requiring any	

TABLE (continued)

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES

electric utility to offer to sell electric energy to any qualifying cogeneration facility or qualifying small power production facility, the rates for such sale—

(1) shall be just and reasonable and in the public interest, and

(2) shall not discriminate against the qualifying cogeneration facility or qualifying small power production facility.

§ 211 Requires reports on interlocking directorates.

Title IV Small Hydroelectric Power Projects

§ 401 Establishment of Program.

The Secretary shall establish a program in accordance with this title to encourage municipalities, electric cooperatives, industrial development agencies, nonprofit organizations, and other persons to undertake the development of small hydroelectric power projects in connection with existing dams which are not being used to generate electric power.

Title VI Miscellaneous Provisions

§ 601 Provides for a study on the effects of federal laws on rates and state agencies.

§ 6-2 Seasonal Diversity Electric Exchange.

(a) AUTHORITY.—The Secretary may acquire rights-of-way by purchase, including eminent domain, through North Dakota, South Dakota, and Nebraska for transmission facilities for the seasonal diversity exchange of electric power to and from Canada if he determines—

(1) after opportunity for public hearing—

(A) that the exchange is in the public interest and would further the purposes referred to in section 101 (1) and (2) of this Act and that the acquisition of such rights-of-way and the construction and operation of such transmission facilities for such purposes is otherwise in the public interest,

(B) that a permit has been issued in accordance with subsection (b) for such construction, operation, maintenance, and connection of the facilities at the border for the transmission of electric energy between the United States and Canada as is necessary for such exchange of electric power, and

(C) that each affected State has approved the portion of the transmission route located in such State in accordance with applicable State law, or if there is no such applicable State law in such State, the Governor has approved such portion; and

(2) after consultation with the Secretary of the Interior and the heads of other affected Federal agencies, that the Secretary of the Interior and the heads of such other agencies concur in writing in the location of such portion of the transmission facilities as crosses Federal land under the jurisdiction of the Secretary or such other agency, as the case may be.

The Secretary shall provide to any State such cooperation and technical assistance as the State may request and as he determines appropriate in the selection of a transmission route. If the transmission route approved by any State does not appear to be feasible and in the public interest, the Secretary shall encourage such State to review such route and to develop a route that is feasible and in the public interest. Any exercise by the Secretary of the power of eminent domain under this section shall be in accordance with other applicable provisions of Federal law. The Secretary shall provide public notice of his intention to acquire any right-of-way before exercising such power of eminent domain with respect to such right-of-way.

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES

2. POWER PLANT AND INDUSTRIAL FUEL USE ACT (P.L. -) (PIFUA)

Title I General Provisions

§ 102 (a) FINDINGS.—The Congress finds that—

(1) the protection of public health and welfare, the preservation of national security, and the regulation of interstate commerce require the establishment of a program for the expanded use, consistent with applicable environmental requirements, of coal and other alternate fuels as primary energy sources for existing and new electric powerplants and major fuel-burning installations; and

(2) the purposes of this Act are furthered in cases in which coal or other alternate fuels are used by electric power plants and major fuel-burning installations, consistent with applicable environmental requirements, as primary energy sources in lieu of natural gas or petroleum.

(b) STATEMENT OF PURPOSES.—The purposes of this Act, which shall be carried out in a manner consistent with applicable environmental requirements, are—

(1) to reduce the importation of petroleum and increase the Nation's capability to use indigenous energy resources of the United States to the extent such reduction, and use further the goal of national energy self-sufficiency and otherwise are in the best interests of the United States;

(2) to conserve natural gas and petroleum for uses, other than electric utility or other industrial or commercial generation of steam or electricity, for which there are no feasible alternative fuels or raw material substitutes;

(3) to encourage and foster the greater use of coal and other alternate fuels, in lieu of natural gas and petroleum, as a primary energy source;

(4) to the extent permitted by this Act, to encourage the use of synthetic gas derived from coal or other alternate fuels;

(5) to encourage the rehabilitation and upgrading of railroad service and equipment necessary to transport coal to regions or States which can use coal in greater quantities;

(6) to prohibit or, as appropriate, minimize the use of natural gas and petroleum as a primary energy source and to conserve such gas and petroleum for the benefit of present and future generations;

(7) to encourage the modernization or replacement of existing and new electric powerplants and major fuel-burning installations which utilize natural gas or petroleum as a primary energy source and which cannot utilize coal or other alternate fuels where to do so furthers the conservation of natural gas and petroleum;

(8) to require that existing and new electric powerplants and major fuel-burning installations which utilize natural gas, petroleum, or coal or other alternate fuels pursuant to this Act comply with applicable environmental requirements;

TABLE (continued)

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
	(9) to insure that all Federal agencies utilize their authorities fully in furtherance of the purposes of this Act by carrying out programs designed to prohibit or discourage the use of natural gas and petroleum as a primary energy source and by taking such actions as lie within their authorities to maximize the efficient use of energy and conserve natural gas and petroleum in programs funded or carried out by such agencies; (10) to insure that adequate supplies of natural gas are available for essential agricultural uses (including crop drying, seed drying, irrigation, fertilizer production of essential fertilizer ingredients for such uses); (11) to reduce the vulnerability of the United States to energy supply interruptions; and (12) to regulate interstate commerce.	
Title II New Facilities, Subtitle A. Prohibitions		
§ 201 New Electric Power Plants	Except to such extent as may be authorized under subtitle B— (1) natural gas or petroleum shall not be used as a primary energy source in any new electric powerplant; and (2) no new electric power plant may be constructed without the capability to use coal or any other alternate fuel as a primary energy source.	
§ 202 New Major Fuel Burning Installations	(a) GENERAL PROHIBITION.—Except to such extent as may be authorized under subtitle B, natural gas or petroleum shall not be used as a primary energy source in a new major fuel-burning installation consisting of a boiler.	
Subtitle B. Exemptions		
§ 211 Temporary Exemptions from Section 201		
§ 212 Permanent Exemptions from Section 201		
Title III Existing Facilities	(a) GENERAL PROHIBITIONS.—Except to such extent as may be authorized under subtitle B— (1) natural gas shall not be used as a primary energy source in an existing electric powerplant on or after January 1, 1990; (2) natural gas shall not be used as a primary energy source in an existing electric powerplant before January 1, 1990, unless such powerplant used natural gas as a primary energy source at any time during calendar year 1977; and (3) natural gas shall not be used as a primary energy source in an existing electric powerplant in any calendar year before 1990 in greater proportions than the average yearly proportion of natural gas which— (A) such powerplant used as a primary energy source in calendar years 1974 through 1976, or (B) if such powerplant began operations on or after January 1, 1974, such powerplant used as a primary energy source during the first two calendar years of its operation. The prohibition of paragraph (1) shall be stayed with respect to any existing powerplant pending a resolution (including judicial review) of any petition for any exemption from such prohibition which is filed for such powerplant at any time after the effective date of this Act, but at least one year before the date such prohibition first takes effect. (b) AUTHORITY OF SECRETARY TO PROHIBIT WHERE COAL OR ALTERNATE FUEL CAPABILITY EXISTS.—The Secretary may prohibit, in accordance with section 303 (a) or (b), the use of petroleum or natural gas, or both, as a primary energy source in any existing electric powerplant, if the Secretary finds that— (1) such powerplant has or previously had the technical capability to use coal or another alternate fuel as a primary energy source; (2) such powerplant has the technical capability to use coal or another alternate fuel as a primary energy source, or it could have such capability without— (A) substantial physical modification of the powerplant, or (B) substantial reduction in the rated capacity of the powerplant; and (3) it is financially feasible to use coal or another alternate fuel as a primary energy source in such powerplant.	
§ 302 Existing Major Fuel-Burning Installations.	(a) AUTHORITY OF SECRETARY TO PROHIBIT WHERE COAL OR ALTERNATE FUEL CAPABILITY EXISTS.—The Secretary may prohibit, in accordance with section 303(a) or (b), the use of petroleum or natural gas, or both, as a primary energy source in any existing major fuel-burning installation, if the Secretary finds that— (1) such installation has or previously had the technical capability to use coal or another alternate fuel as a primary energy source; (2) such installation has the technical capability to use coal or another alternate fuel as a primary energy source, or it could have such capability without— (A) substantial physical modification of the unit, or (B) substantial reduction in the rated capacity of the unit; and (3) it is financially feasible to use coal or another alternate fuel as a primary energy source in such installation. The requirement of paragraph (1) shall not be considered to be satisfied unless the finding under such paragraph is made before the date of the publication of the notice of proposed prohibition under section 701(b) and is published with such notice. (b) AUTHORITY OF SECRETARY TO PROHIBIT EXCESSIVE USE IN MIXTURES.— (1) In the case of any existing major fuel-burning installation in which the Secretary finds it is technically and financially feasible to use a mixture of petroleum or natural gas and coal or another alternate fuel as a primary energy source the Secretary may prohibit, in accordance with section 303(a), the use of petroleum or natural gas, or both, in such installation in amounts in excess of the minimum percentage of the total Btu heat input of the primary energy sources needed to maintain reliability of operation of the unit consistent with maintaining reasonable fuel efficiency of such mixture. (2) The percentage determined by the Secretary under paragraph (1) shall not be less than 25 percent.	

TABLE (continued)

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
§ 311 Temporary Exemptions.		
	(a) TEMPORARY EXEMPTION DUE TO LACK OF ALTERNATE FUEL SUPPLY, SITE LIMITATIONS, OR ENVIRONMENTAL REQUIREMENTS.—After consideration of a petition (and comments thereon) for an exemption from one or more of the prohibitions of subtitle A for a powerplant or installation, the Secretary shall, by order, grant such an exemption for the use of natural gas or petroleum, if he finds that the petitioner has demonstrated that for the period of the proposed exemption, despite diligent good faith efforts— (1) it is likely that an adequate and reliable supply of coal or other alternate fuel of the quality necessary to conform with design and operational requirements for use as a primary energy source, will not be available to such powerplant or installation at a cost (taking into account associated facilities for the transportation and use of such fuel) which, based upon the best practicable estimates, does not substantially exceed the costs, as determined by rule by the Secretary, of using imported petroleum as a primary energy source; (2) one or more site limitations exist which would not permit the operation of such a powerplant or installation using coal or any other alternate fuel as a primary energy source; or (3) the prohibitions of section 301 or 302 could not be satisfied without violating applicable environmental requirements.	
	(b) TEMPORARY EXEMPTION BASED UPON FUTURE USE OF SYNTHETIC FUELS.--After consideration of a petition (and comments thereon) for an exemption from one or more of the prohibitions of subtitle A for a powerplant or installation, the Secretary, by order, shall grant an exemption under this subsection for the use of natural gas or petroleum, if he finds that the petitioner has demonstrated that— (1) the petitioner will comply with the prohibitions of subtitle A by the end of the proposed exemption by the use of a synthetic fuel derived from coal or another alternate fuel; and (2) the petitioner is not able to comply with such prohibitions by the use of such synthetic fuel until the end of the proposed exemption.	
§ 311 (cont.) Temporary exemptions may also be granted for:		
	(c) Use of innovative technologies (d) Units to be retired (e) Public interest (f) Peakload powerplants (g) Powerplants where necessary to maintain reliability of service.	
§ 312 Permanent Exemptions.		
	(a) PERMANENT EXEMPTION DUE TO LACK OF ALTERNATE FUEL SUPPLY, SITE LIMITATIONS, OR ENVIRONMENTAL REQUIREMENTS.—(1) After consideration of a petition (and comments thereon) for an exemption from one or more of the prohibitions of subtitle A for a powerplant or installation, the Secretary shall, by order, grant a permanent exemption under this subsection for the use of natural gas or petroleum, if he finds that the petitioner has demonstrated that despite diligent good faith efforts— (A) it is likely that an adequate and reliable supply of coal or other alternate fuels of the quality necessary to conform with design and operational requirements for use as a primary energy source will not be available to such powerplant or installation at a cost (taking into account associated facilities for the transportation and use of such fuel) which, based upon the best practicable estimates, does not substantially exceed the cost, as determined by rule by the Secretary, of using imported petroleum as a primary energy source during the remaining useful life of the powerplant or installation; (B) one or more site limitations exist which would not permit the operation of such a powerplant or installation using coal or any other alternate fuel as a primary energy source; or (C) the prohibitions of subtitle A could not be satisfied without violating applicable environmental requirements. (2) Notwithstanding the preceding provisions of this subsection, a powerplant which has been granted an exemption under subsection (g) may not be granted an exemption under this subsection.	
	(b) PERMANENT EXEMPTION DUE TO CERTAIN STATE OR LOCAL REQUIREMENTS.--After consideration of a petition (and comments thereon) for an exemption from one or more of the prohibitions of subtitle A for a powerplant or installation, the Secretary may, by order, grant a permanent exemption under this subsection, if he finds that the petitioner has demonstrated that— (1) with respect to the site of the powerplant or installation, the operation of such a facility using coal or any other alternate fuel is infeasible because of a State or local requirement; (2) if such State or local requirement is under a building code or nuisance or zoning law, no other exemption under this subtitle could be granted for such facility; and (3) the granting of the exemption would be in the public interest and would be consistent with the purposes of this Act.	
	(c) PERMANENT EXEMPTION FOR COGENERATION.--After consideration of a petition (and comments thereon) for an exemption from one or more of the prohibitions of subtitle A for a cogeneration facility, the Secretary may, by order, grant a permanent exemption under this subsection, if he— (1) finds that the petitioner has demonstrated that economic and other benefits of cogeneration are unobtainable unless petroleum or natural gas, or both, are used in such facility, and (2) includes in the final order a statement of the basis for such finding.	
	(d) PERMANENT EXEMPTIONS FOR CERTAIN FUEL MIXTURES CONTAINING NATURAL GAS OR PETROLEUM. (e) PERMANENT EXEMPTION FOR EMERGENCY PURPOSES. (f) PERMANENT EXEMPTION FOR PEAKLOAD POWERPLANTS. (g) PERMANENT EXEMPTION FOR INTERMEDIATE LOAD POWERPLANTS. (h) Through (l) others.	
Title V System Compliance Options		
§ 501	(a) GENERAL RULE.--Existing electric powerplants owned or operated by an electric utility shall be considered in compliance with any prohibition under title III relating to the use of natural gas if there is in effect a plan of system compliance for such utility approved by the Secretary under subsection (b). No exemption under title III relating to	

TABLE (continued)

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
	the use of natural gas shall be available for any powerplant which is, or has ever been, covered by such an approved plan (other than an exemption under section 312(e).	
Title VI	Financial Assistance	
§ 601	Assistance is provided to areas impacted by increased coal or uranium production.	
§ 602	Provides loans to assist powerplant acquisition of air pollution control equipment.	
Title VII	Administration and Enforcement	
§ 744	Provides for a study with compliance problems of small electric utility systems.	
§ 745	EPA must monitor emissions under Clean Air Act.	
3. NATIONAL ENERGY CONSERVATION POLICY ACT (P.L. -) (NECPA)		
Title I	General Provisions	
§ 102	(a) FINDINGS.--The Congress finds that— (1) the United States faces an energy shortage arising from increasing demand for energy, particularly for oil and natural gas, and insufficient domestic supplies of oil and natural gas to satisfy that demand; (2) unless effective measures are promptly taken by the Federal Government and other users of energy to reduce the rate of growth of demand for energy, the United States will become increasingly dependent on the world oil market, increasingly vulnerable to interruptions of foreign oil supplies, and unable to provide the energy to meet future needs; and (3) all sectors of our Nation's economy must begin immediately to significantly reduce the demand for nonrenewable energy resources such as oil and natural gas by implementing and maintaining effective conservation measures for the efficient use of these and other energy sources. (b) STATEMENT OF PURPOSES.--The purposes of this Act are to provide for the regulation of interstate commerce, to reduce the growth in demand for energy in the United States, and to conserve nonrenewable energy resources produced in this Nation and elsewhere, without inhibiting beneficial economic growth.	
Title II	Residential Energy Conservation	
§ 212	DOE must promulgate rules for approval of state energy conservation plans.	States must submit plans 180 days after promulgation of rules for regulated utilities.
4. DEPARTMENT OF ENERGY ORGANIZATION ACT (P.L. 95-91), Aug. 4, 1977		
§ 103	When Department of Energy proposed action conflicts with energy plans of state, conflicts shall be resolved. Each state has authority over matters exclusively within its jurisdiction.	States can pre-empt federal programs.
§ 201	Establishes Department of Energy (DOE)	
§ 204	Establishes Federal Energy Regulatory Commission.	
§ 205	Establishes an Energy Information Administration. Carry out functions of Section 11 of the Energy Supply & Environmental Coordination Act of 1974. Carry out functions assigned to Director of the Office of Energy Information & Analysis under part B of the Federal Energy Administration Act of 1974. Requires an energy-producing company financial report on an annual basis.	
§ 206	Establishes an Economic Regulatory Administration.	
§ 208	Establishes Office of Inspector General to detect fraud and abuse of federal programs.	Coordinates relationships between DOE & state and local governments & agencies.
§ 209	Establishes Office of Energy Research.	
§ 301	Transfers to DOE all functions of the Federal Energy Administration, and Energy Research and Development Administration, and all functions of the Secretary of the Interior under Section 5 of the Flood Control Act of 1944, and all functions of the Energy Policy and Conservation Act, and components of the Department of Interior Act of May 15, 1920, relating to fuel supply and demand analysis, and coal preparation and analysis.	
§ 304	Transfers to DOE the functions of Section 304 of the Energy Conservation Standards for New Buildings Act of 1976.	
§ 306	Transfers functions of Interstate Commerce Commission related to transportation of oil by pipeline.	
§ 308	Transfers functions of Department of Commerce related to Office of Energy Research limited to industrial energy conservation programs.	
§ 401	Establishes Federal Energy Regulatory Commission: composed of five members.	
§ 402	Transfers to the Commission certain functions of the Federal Power Commission relating to: 1. Investigation, issuance, transfer, renewal, revocation, and enforcement of licenses and permits for construction, operation, and maintenance of dams, powerhouses, and transmission lines. 2. Establishment, review, and enforcement of rates and charges for the transmission or sale of electrical energy, including determination on construction work in progress, under Part II of the Federal Power Act, and the interconnection under Section 202 of such act, of facilities for generation, transmission, and sale of electrical energy. 3. Exercise any functions of Sections 4, 301, 302, 306, 307, 308, 309, and 312 through 316 of Federal Power Act.	
§ 501	Administrative Procedures. Any person who would be adversely affected by the implementation of any proposed rule, regulation, or order, or where compliance would likely cause serious harm or injury to public health, welfare, and safety, shall be afforded an opportunity for a hearing or oral presentation of views, and may submit material supporting existence of such issues. These "persons" includ	

TABLE (continued)

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
	1. A single unit of local government or its residents 2. A single geographic area within a state or its residents 3. A single state or its residents	
Part G		
§ 501	(G) Where authorized by the secretary, state or local government agencies may carry out such functions as may be permitted under applicable law.	State or local governmental agencies may carry out federal programs.
§ 502	Cases or controversies arising under any rule, regulation, or order of any officer of a state or local government agency may be heard in either: 1. Any appropriate state court 2. Any U.S. District court	State court process may be involved.
§ 655	The governors of the various states may establish Regional Energy Advisory Boards.	Each Board may make recommendations to programs of the department having a direct effect on the region.
§ 801	1. a. The president shall prepare and submit to Congress a proposed National Energy Policy Plan. b. Seek the active participation by regional, state, and local agencies, and the private sector to ensure that the views and proposals of all segments of the economy are taken into account. 2. a. The proposed plan shall consider and establish five- and ten-year plans for energy production, use, and conservation objectives. b. Forecast the level of production and investment necessary in each of the energy supply sectors. c. Recommend legislative and administrative actions necessary and desirable to achieve objectives of the Plan, with respect to taxes, tax incentives, regulatory actions, antitrust policy. 4. The president shall ensure that consumers, small businesses, and other interests including individual citizens are consulted in the development of the plan.	State and local units of government may participate in development of National Energy Policy Plan. State and local incentives may have an impact on federal action.
5. FEDERAL ENERGY ADMINISTRATION AUTHORIZATION ACT OF 1977 (P.L. 95-70)		
§ 33	Requires any person contracting with the DOE to disclose possible conflicts of interest.	
6. ENERGY POLICY AND CONSERVATION ACT: P.L. 94-163, AS AMENDED BY P.L. 94-385 AND P.L. 95-70		
Title I		
§ 101	Extends Section 2 of the Energy Supply and Environmental Coordination Act of 1974, paragraph (1), until January 1, 1985; paragraph (2), until January 1, 1985. Prohibiting any powerplant from burning natural gas or petroleum products as its primary energy source.	
§ 106	(b)(1) Each state or the appropriate agency may determine the maximum efficient rate of production for each field within the state which produces or is capable of producing significant volumes of crude oil, natural gas, or both.	Allows each state to inventory oil well production capability.

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
Title V Part C	Improving Automotive Efficiency	
§ 362	1. Prescribes guidelines for the preparation of a state energy conservation feasibility report; includes plans to reduce state-wide energy consumption by 5% for the year 1980. 2. Describes requirements for eligibility for federal assistance, such as thermal efficiency standards for new or renovated buildings, restrictions on the use and operating hours of public buildings, or public education programs to promote energy conservation.	The governor of each state shall submit an energy conservation report.
7. ENERGY CONSERVATION AND PRODUCTION ACT: P.L. 94-385 AS AMENDED BY P.L. 95-70 AND P.L. 95-91		
§ 103	1. Paragraphs (1) and (2) of Section 7 (c) of the Federal Energy Administration Act of 1974 are amended to require the FEA to provide a written comment period for the EPA to respond on the potential impact of any proposed rules, regulations, or policies on the quality of the environment. 2. The comment period required above may be waived for a period of 14 days under emergency situations subject to the judgment of the Administrator of FEA.	States may submit public health & environmental testimony on impact of proposed rules & regulations to EPA.
§ 105	The Administrator or FEA, where required by law or as deemed necessary, shall hold hearings and/or oral presentations when a proposed rule or regulation may impact on local government or its residents, or a state and its residents.	States or local units of government may request hearings.
§ 123	The Administration of the FEA shall take such action to ensure that proposed rules and regulations issued by the agency do not impose unreasonable or discriminatory barriers to construction of small refineries and independent refineries.	May enhance development of state petroleum refinery industry.
Part B		
§ 52	Establishes a National Energy Information System to permit analysis of: 1. The institutional structure of the energy supply system including patterns of ownership and control of mineral fuel and nonmineral energy resources and the production, distribution, and marketing of mineral fuels and electricity; 2. The consumption of mineral fuels, nonmineral energy resources, and electricity by such classes, sectors, and regions as may be appropriate for the purposes of this act; 3. The sensitivity of energy resource reserves, exploration, development, production, transportation, and consumption to economic factors, environmental constraints, technological improvements, and substitutability of alternate energy sources; 4. The comparability of energy information and statistics that are supplied by different sources; 5. Industrial, labor, and regional impacts of changes in patterns of energy supply and consumption; 6. International aspects, economic and otherwise, of the evolving energy situation; and 7. Long-term relationships between energy supply and consumption in the United States and world communities.	

TABLE (continued)

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
1. EMERGENCY PETROLEUM ALLOCATION ACT OF 1973 AS AMENDED BY P.L. 93-511, P.L. 94-99, P.L. 94-133, P.L. 94-163, AND P.L. 94-385		
§ 4	Requires the president to prepare a regulation providing for mandatory allocation of crude oil and refined petroleum products.	
SOLAR ENERGY RESEARCH, DEVELOPMENT, AND DEMONSTRATION ACT OF 1974: P.L. 94-385		
§ 4	Establishes the Solar Energy Coordination and Management Project.	
§ 5	Requires an assessment of all solar energy resources, including a national inventory and potential for commercial exploration and development.	
§ 6	The hairman shall initiate a research and development program for the purpose of resolving major technical problems inhibiting commercial utilization of solar energy in the U.S.A.	
10. ENERGY REORGANIZATION ACT OF 1974: P.O. 93-438, AS AMENDED BY P.L. 94-385, AND P.L. 95-91		
Title I	Energy Research and Development Administration (ERDA)	
§ 101	Establishes ERDA.	
§ 201	Establishes Nuclear Regulatory Commission (NRC)	
§ 202	Gives the NRC licensing and regulatory authority under Chapters 6, 7, 8, and 10 of Atomic Energy Act of 1954.	
§ 203	Establishes an Office of Nuclear Reactor Regulation.	
§ 206	Any responsible individual or director of a firm constructing, owning, or operating any facility licensed under the Atomic Energy Act of 1974 shall immediately notify the NRC of any defect or situation which could create or represents a substantial safety hazard.	
§ 207	Authorizes the NRC to conduct a national survey to locate and identify possible nuclear energy center sites.	
11. ENERGY SUPPLY AND ENVIRONMENTAL COORDINATION ACT OF 1974: P.L. 93-319, AS AMENDED BY P.L. 94-163 AND P.L. 95-70		
§ 2	Prohibits any powerplant or other fuel-burning installation from burning natural gas or other petroleum products as its primary energy source unless analysis shows that burning coal would be impossible, impractical, or subject the utility to unfair economic disadvantage, or impair reliability or service.	
§ 3	1. Amends Title I of the Clean Air Act, Section 119, to allow the administrator to temporarily suspend any stationary source fuel or emission limitation between June 22, 1974, and June 30, 1975.	
	2. The administrator must give notice to the governor of the state in which the emission source is located.	
	3. The suspension or relaxation of applicable emission reduction requirements may extend up to January 1, 1979. Nothing in this act shall prohibit a state, or agency from enforcing any primary air standard or regional limitation. Any electric generating powerplant scheduled to be taken out of service permanently by January 1, 1980, may be eligible for a single one-year postponement of emission reduction requirements.	Appl cation of this ammended statute may cause a significant reduction in air quality or a local and state level.
§ 4	Amends Section 110 (a) of the Clean Air Act to allow revision of each state's air quality implementation plans if weakening such plans will not interfere with attainment of natfonal ambient air quality standards.	May weaken state programs for improvement of air quality.
12. FEDERAL ENERGY ADMINISTRATION ACT OF 1974 (FEA): P.L. 93-275, AS AMENDED BY P.L. 94-332, P.L. 95-70, AND P.L. 95-91		
§ 7	(1)(3) The FEA may authorize state or local government agencies to carry out the functions of this act.	Feds may delegate authority to state agencies.
§ 13	1. The FEA shall collect, evaluate, and analyze energy information to permit fully informed monitoring and policy guidance.	
	2. All persons owning or operating facilities or businesses engaged in any phase of energy supply or major energy consumption shall make available periodic reports, records, and documents to comply with this act.	
§ 14	The FEA shall make a public disclosure of any statistical and economic analyses, data, and information to keep the public fully and currently informed.	
§ 18	Requires the administrator of the FEA to analyze the potential economic impacts of proposed regulatory actions.	
§ 19	A thirty-day period may be provided for a management oversight review of any federal or state energy program conducted under this act.	
§ 20	1. Requires coordination of federal energy programs and policies with the programs of state governments.	States may provide written comment on proposed rules or regulations substantially affect authority of state government.
	2. The FEA shall provide technical assistance including advice and consultation to state government in dealing with energy problems; and promote promulgation of uniform criteria procedures, and forms for grant(s) or contracts for energy proposals submitted by state governments.	States may request and receive help in developing energy programs and coordination of these nationwide with other state's programs.
§ 22	Requires the FEA to prepare a comprehensive energy plan.	
§ 24	Requires the FEA to submit to Congress a report with an [illegible] exis[illegible]ydro[illegible]ic g[illegible]ing [illegible],	

TABLE (continued)

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
	and the potential for increasing the capacity of existing hydroelectric generating facilities.	
§ 51	Establishes within the FEA an Office of Energy Analysis and Information.	
13. ATOMIC ENERGY ACT OF 1954: P.L. 83-703		
§ 21	Establishes an Atomic Energy Commission (AEC) composed of five members.	
§ 26	Establishes a general advisory committee on scientific and technical matters.	
§ 29	Establishes an advisory committee on reactor safeguards.	
§ 31	The AEC is authorized to provide for and conduct research in such areas as nuclear process theory, uses for spent radioactive material, and protection of public health.	
§ 41	The AEC shall own all production facilities of nuclear material, except certain research facilities and licensed facilities.	
§ 43	The AEC is authorized to purchase or condemn facilities involved in the production of special nuclear materials.	
§ 44	Sale, use, or transfer of energy including electrical from nuclear production facilities shall be subject to regulation by the appropriate agency.	
§ 52	All rights and title to ownership or any special nuclear material are transferred to the AEC. All nuclear material produced in the U.S. is property of the U.S. government.	
§ 53	Authorizes the AEC to issue licenses to purchase, use, or distribute nuclear materials for research or commercial purposes.	
§ 61	Allows the AEC to define nuclear source materials.	
§ 63	Authorizes the AEC to issue licenses for Domestic Distribution of source materials.	
§ 67	Allows the AEC to lease government lands for mining of source materials.	
§ 81	The AEC is authorized to issue licenses and permits for the use, possession, or transfer of by-product materials.	
& 101	A license is required for any energy production facility.	
§ 103	Defines the conditions for issuance of a commercial license for atomic energy production.	
§ 104	Defines the conditions for issuance of a license for medical therapy and research.	
§ 105	None of the provisions of this act exempt licenses from the applicable antitrust laws of the U.S. government.	
§ 106	Allows the AEC to class or group together production facilities.	
§ 107	Requires an operator's license for individuals operating commercial production facilities.	
Chapter 12		
§ 141	Establishes a policy at the AEC of restricting certain data and technical information relating to atomic energy until effective international safeguards are established.	
§ 142	The AEC is authorized to periodically review and classify such restricted data, allowing for the declassification of material determined to be without undue risk to common defense and security.	
§ 143	Authorizes the Department of Defense to have access to restricted data.	
§ 144	The president is authorized to permit the AEC to cooperate and communicate with other nations in the sharing of certain restricted data.	
Chapter 14		
§ 161	Defines the scope of power and authority given to the AEC.	
§ 164	The commission is authorized to enter into contracts to provide electric utility services at facilities owned by the commission.	
§ 168	The AEC is authorized to make payments to state and local governments in lieu of property taxes, in order to render financial assistance to those states and localities in which the AEC carries on activities.	States & local government make request payments for land and/or property rights.
§ 170	1. Each license issued under Sections 103 or 104, 185, 53, 63, or 81 of this act may have as a condition a requirement that the licensee maintain financial protection (insurance) to cover public liability claims. 2. The maximum liability for each nuclear incident shall not exceed $500 million.	
§ 171	The United States shall make just compensation for any property taken pursuant to Sections 43, 52, 66, or 108 of this act.	
§ 172	Authorizes condemnation proceedings as applicable to this act.	
§ 182	1. Describes the necessary requirements for application for a license, including compliance with all rules and regulations of the AEC, technical specifications of the facility, place, size, safeguards to protect public health and safety. 2. The Advisory Committee on Reactor Safeguards shall review each application. 3. The AEC must notify all state and local agencies having regulatory authority over such a proposed facility.	
§ 183	Defines the terms of each license.	
§ 184	No transfer of a license may occur without approval of the AEC.	
§ 186	Describes the causes for revocation of licenses.	

TABLE (continued)

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
4. RURAL ELECTRIFICATION ACT OF 1936		
Title I		
§ 1	Creates the Rural Electrification Administration (REA) in the Department of Agriculture.	
§ 2	Authorizes the REA to make loans for rural electrification programs.	
§ 4	Such loans shall be for a maximum period of 35 years, at an annual interest rate of 2 percent.	
Title III		
§ 306	The government shall provide guaranteed loans in special cases to facilitate the development of rural electric projects.	
5. FEDERAL POWER ACT OF JUNE 10, 1920		
Part I	Water Power Licenses.	
§ 1	Establishes Federal Power Commission (FPC) composed of five members appointed by the president.	
§ 1.10	Maintains that whatever rights the states have to use or regulate navigable waters are not superior to the power of Congress to regulate foreign and interstate commerce including navigation.	State law may be pre-empted.
§ 4	a. The Federal Power Commission is authorized to make investigations, and collect data concerning the use of water resources of any region to be developed, the waterpower industry, and the location, capacity, and relation to markets of power sites. b. Public water utilities are required to submit a statement of actual legitimate original costs of construction of such projects for energy production from water resources. d. Requires public disclosure of information by FPC. e. Grants authority of the FPC to issue licenses to individuals, corporations, or government entities to construct, operate, or maintain dams, reservoirs, and power houses for the purposes of producing hydroelectric power.	
§ 4.36	A state's statutes forbidding a project because of its size are not controlling if the FPC finds such a project in the public interest.	State law may be pre-empted
§ 4.40	The FPC has the authority to grant a valid license for a power project provided the use of the water does not conflict with the vested rights of others. The state has no veto power over such action.	State law may be pre-empted.
§ 4.50	A licensee gets no part of the sovereign power over the navigable waters which belong to the federal government. He or she gets only those powers which are specifically granted in the license, and which are not in conflict with the act.	
§ 4	(f) Requires the issuance of preliminary permits to enable applicants for a license to secure data and conform to Section 9 of this act.	

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
§ 4(f).13	One purpose of the preliminary permit is to enable the applicant to acquire water rights and property rights from state authorities, and obtain state permission on other related matters.	
§ 4(f).17	Excessive cost of development combined with unfavorable market conditions are reasons for denying an application for a preliminary permit.	
§ 4(f).20	Permits may still be issued in spite of opposition due to potential interference and conflicts with the interests and activities of others.	
§ 4(f).33	In the determination of a project in the best public interest, due consideration must be given as to whether the water should be reserved for municipal and domestic purposes.	The impact of a project on the state's water resources must be evaluated.
§ 4(g).02	Application for a construction permit from the FPC to build a hydroelectric powerplant on a non-navigable tributary of a navigable river should be based on both the interstate commerce aspects of the electrical energy transmitted, and the nature of the affects on interstate commerce on the navigable river.	
§ 4(g).03	The Federal Power Act and its regulations are retroactive, that is, the Federal Power Act does apply to projects constructed before its passage.	
§ 4(g).05	Application for a preliminary permit does not require the presentation of extensive or complete information and data.	
§ 5.15	Delay caused by refusal of an applicant for a license to submit matters in controversy to the jurisdiction of the FPC under its rules and regulations cannot be pleaded by the applicant as just reason for further delay in tendering license.	
§ 5.151	Congress declares that the maximum time allowed under a preliminary permit is three years, though the maximum combined period allowed for the commencement of construction is four years.	
§ 5.152	An applicant enjoying seven years' priority with respect to a water power site and construction of a hydroelectric project will not receive additional delays.	
§ 5.25	The FPC is without power to hold a proposed project site under indefinite priority.	
§ 5.50	The exclusive power and authority to issue licenses and grant permission to enter upon the public domain to construct and maintain electrical transmission pole lines is vested with the FPC.	
§ 5.55	The purpose of the preliminary permit is to enable the applicant to make the investigations, examinations, and surveys, prepare the maps, plans, and specifications, and estimates, make the financial arrangements, and gather other data that is required to obtain a license. The intent of the Federal Power Act is to have applicants act diligently and complete all necessary investigations during the period of the preliminary per-	

TAb... (continued)

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
§ 5.75	The permit does not authorize construction of the proposed project.	
§ 6.15	A power company which obtains a license from the FPC must comply with the rules and regulations of the FPC, including maintenance of a system of accounts.	
§ 6.17	Licenses shall be issued for a period not exceeding fifty years.	
§ 6.18	The economic feasibility of each proposed project will be evaluated, including a comparison of the annual cost of the proposal with the annual costs of an alternative energy source to provide an equivalent supply of power, and by showing an adequate market for the power to be developed.	
§ 6.23	Congress intended that the fifty-year limit on a license for a water power project be emphasized, rather than have the license become indefinite or perpetual. Thus at the end of each license period Congress might re-examine the use of the particular natural resource.	
§ 6.27	Puts a condition in a hydroelectric license providing that, after the first 20 years of operation, the minimum stream flow requirements shall be reassessed and possible revised.	
§ 6.31	Gives FPC authorization to modify the license of a power company to increase the power output from a powerplant to meet a marked shortage of electric power.	
§ 6.38	Although damage to private recreational interests is a proper claim for compensation under Section 10(c) of this act, such damage will not preclude the amendment of a license.	
§ 6.75	A license may be terminated by the dissolution of the corporate licensee by the state.	
§ 6.80	A license may be terminated by the revocation of the corporate charter of the licensee by the state.	
§ 6.82	A power company may surrender its license after due requirements for public notice and if the surrender is not contrary to the public interest.	
§ 7.(a)	In the issuance of preliminary permits or licenses under the provisions of this act, the FPC shall give preference to applications therefore by states and municipalities, provided the plans are equally well adapted to conserve and utilize in the public interest the water resources of the region.	States & local units of government may own & operate hydroelectric plants in the public interest.
§ 7.10	An agency of a state is entitled to the benefits of Section 7(a).	
§ 7.11	The Secretary of the Interior has special standing to appear, to intervene, and to introduce evidence on a proposed river development.	
§ 7.13	Other developments in the area, including those of the federal government must be given consideration in a license application proceeding.	
§ 7.15	In awarding a private enterprise a license to construct a dam project, the FPC notes that the public purposes, such as flood control, navigation, and recreation will be realized without expense to the country to the extent that projects are constructed by a nonfederal entity.	
§ 7.20	Gives the FPC a mandate to make an informal judgment on license application as to whether the development of any water resources for public purposes should be undertaken by the U.S.	
§ 7.21	The FPC must test the proposed project against the public interest after first exploring all issues relevant to the public interest to help decide whether federal water sources may be alienated for the purpose of constructing a hydroelectric project.	
§ 7.35	A statutory preferential right given to a municipality exists only if and when there is a conflict of application and before any priority has been attached.	
§ 7.351	Preferential right to municipalities will not be given where the competing nongovernmental applicant presents a proposal which is more feasible and which is best adopted for the project.	
§ 8.18	No voluntary transfer of any license, or of the rights granted thereunder, shall be made without the written approval of the commission.	
§ 8.25	The FPC may not approve a license transfer where the prospective transferee has failed to comply with state law as required by Section 9(b) of the act.	
§ 9(a)	Each applicant for a license shall submit to the FPC such maps, plans, specifications, and cost estimates as may be required for a full understanding of the project. Such maps, plans, and specifications shall be made a part of the license; and thereafter no changes shall be made in such maps, plans, and specifications without approval by the FPC.	
§ 9(b)	Each applicant must comply with the laws of the state or states within which the proposed project will be located with respect to bed and banks, and the use and diversion of water for power purpose, and with respect to the right to engage in the business of developing, transmitting, and distributing power, and any other necessary business requirements.	
§ 10.76 through 10.821	Describes how Indian and tribal lands shall be dealt with under the law; and annual charges adjusted for rents and land use based on establishment of the commercial value of such tribal lands.	
§ 10.(h)	Combinations, agreements, arrangements, or understandings, express or implied, to limit the output of electrical energy, to restrain trade, or to fix, maintain, or increase prices for electrical energy or service are prohibited.	
§ 13	Licenses shall commence construction of the project within the time fixed in the license, but not to exceed two years. An extension may be granted once, and it will also not exceed two years.	
§ 20	When the power generated by a licensed facility enters into interstate commerce, the rates charged and services rendered become	

TABLE (continued)

NUMBER, TITLE, and SECTION	PURPOSE	RELATIONSHIP TO STATES
	subject to regulation and control by federal and state laws and statutes.	
§ 21	A licensee may exercise the right of eminent domain to acquire lands or property necessary for construction, maintenance, or operation of any dam, reservoir, or diversion structure associated with an approved hydroelectric project.	
§ 21.16	Congress has the power to grant the right of eminent domain to any licensee.	
§ 21.53	Neither a state legislature nor Congress has to give landowners notice before taking action in an eminent domain proceedings.	
§ 21.802	The compensation for land taken by the federal government is determined on the basis of market value.	
§ 27	No part of this act shall be construed as affecting or intended in any way to interfere with the laws of the respective states relating to the control, appropriation, use, or distribution of water rights and usage.	
art II		
§ 201.08	Gives the FPC authority to regulate electric utility companies engaged in interstate commerce.	
§ 201.14	The FPC has jurisdiction where out-of-state electric energy is commingled with in-state energy.	
§ 201.33	Rural electric cooperatives are not subject to regulation by FPC. It was not intended by Congress for these entities to be regulated under this act.	
§ 201.47	FEA-financed cooperatives are not government entities exempted under this act.	
§ 202	1. The commission shall promote and encourage interconnection of power generation facilities and transmission networks on a regional basis to promote economy, efficiency, and conservation of natural resources.	
§ 204	No public utility shall issue any security or assume any obligation or liability as guarantor unless the FPC by order authorizes such issue or assumption of liability.	
§ 205	1. All rates and charges made, demanded, or received by any public utility for the transmission or sale of electric energy are subject to the jurisdiction of the FPC. 2. Any request for a change in rates, charges, classification, or service must be in writing and 30 days notice given to the commission and to the public.	
§ 205.25	Wholesale sales of electric energy for resale by a public utility are subject to FPC jurisdiction.	
§ 205.49	An electric company's rates must be equitable and nondiscriminatory both to municipal customers and cooperatives.	
§ 205.675	The FPC is authorized to order an electric company to show reasonableness in the company's filed rate schedules.	
§ 205.70	A utility company which charges excess, unapproved rates can be ordered to make refunds to all affected customers.	
§ 206	1. The commission shall determine and fix just and reasonable rates, charges, classifications, or services to reduce discrimination and unfairness.	
§ 206.51	A hearing will be required for all proposed mergers of Class A electric utilities.	
§ 208	1. The commission may investigate and ascertain the actual legitimate cost of the property of every public utility, and depreciation therein, for necessary rate-making purposes.	
§ 208.30	The FPC may determine a reasonable rate of return by examining (1) general interest rates and yields, (2) utility interest rates and yields, (3) general economic conditions, (4) comparative risks of utilities, and (5) economic factors pertaining to local conditions where the utility operates.	
§ 208.70	Depreciation rates shall be based on original cost rather than cost of reproduction new.	
Part III	Procedural and Administrative Provisions	
§ 301	(a) Every licensee and public utility shall prepare, keep, and preserve accounts, correspondence, papers, books, and other records as the FPC shall declare necessary for purposes of this act, including records on the generation, transmission, distribution, and sale of electrical energy.	Every public utility must comply with all state laws as well.
§ 302	(a) The FPC is given authority to determine and fix the proper and adequate rates of depreciation of the several classes of property of each public utility. (b) Before fixing such depreciation rates, the FPC is required to notify each state commission and give reasonable opportunity for each state governing body to present its views for consideration.	
§ 304	(a) Each public utility shall file an annual or other such periodical report(s) as the FPC by regulation requires. (b) It shall be unlawful for any person to hinder, obstruct, or delay the filing or record-keeping required under this act.	
§ 306	Any person, state, or municipality may file a complaint against a public utility if indications suggest non-compliance with this act. The affected utility must then reply to such allegations to the FPC. If the complaint is not justly satisfied, the commission shall investigate the matter.	
§ 307	The FPC may investigate any conditions, practices, or matters it finds necessary, and is empowered, for hearings and proceedings, to administer oaths, subpoena witnesses, compel their attendance, and require relevant material to be placed before the commission.	
§ 309	The FPC is given administrative powers to promulgate rules and regulations under this act.	
§ 313	Any person, state, or municipality aggrieved by an order issued by the FPC may apply for a rehearing within 30 days after such order.	
§ 314	The commission may request that an injunction or restraining order be issued to any person or utility engaged or about to engage in acts in violation of this act.	

The Federal Power Commission (FPC) has been replaced by the Federal Energy Regulatory Commission (FERC).

CHAPTER TWO

THE ENERGY PLAYERS

There are numerous processes affecting the generation, distribution, and cost of electricity in Minnesota. While many of these processes are guided or controlled by federal laws (see Chapter One), a number of the key decisions affecting the utilities and the ultimate consumers of electricity still reside at the state level. These processes include determining the need for large electrical generating facilities and high voltage transmission lines (HVTLs), conservation policies, advanced planning for new facilities, siting facilities, environmental policies, permitting new facilities, determining service areas, establishing rates, and a host of other activities.

The Minnesota Legislature has created a number of agencies to govern these processes and implement their policies. The right to regulate electrical utilities and some of the concerns people have about these "natural monopolies" are reviewed in Chapter One. The primary purpose of Chapter Two is to examine the role the energy players who implement the Minnesota regulatory processes that affect and govern electrical utilities and the role the public, which is defined as non-governmental, non-utility people, can play in affecting the decision making process of the agencies and utilities. These energy players include the electrical utilities, the Minnesota Energy Agency (MEA), the Environmental Quality Board (MEQB), the permitting and pollution control agencies (primarily MPCA and DNR), the Public Service Commission (PSC) and its related agency, the Department of Public Service (DPS), the public's advocate in rate proceedings (Residential Utility Service Unit (RUSU) within the Office of Consumer Services), and the public (i.e., those "interested persons" affected by a decision and who wish to get involved in the issue.

The two major concerns of the electrical utilities are the authorizations for siting for new facilities and the rate of compensation permitted from the sales of

the power generated. Sections 2.2 through 2.4 of this chapter describe the agencies that affect siting. The authorizations for siting overlap many agencies. In addition, many agencies have responsibilities involving energy policy beyond siting decisions. The issue of rates will be discussed in Section 2.5. Finally, public participation in these processes is examined in Section 2.5.

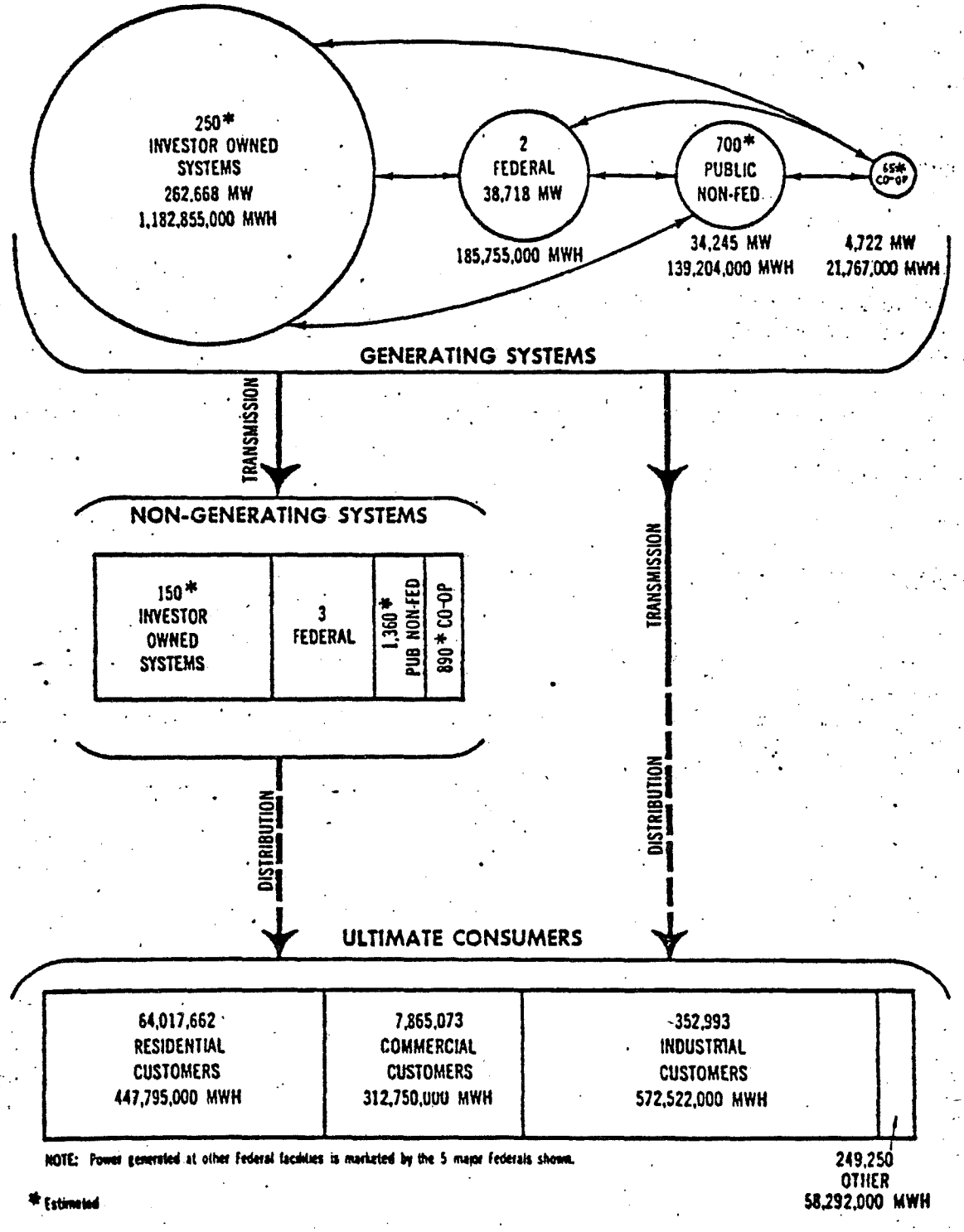
2.1 Electrical Utilities

The electrical utility industry within the United States is generally made up of vertically integrated companies that generate, transmit, and deliver electricity to consumers. There are about 3,500 utility systems supplying electricity in the United States. Of these, about 400 are investor-owned with an aggregate generating capacity of 263,000 megawatts or 77% of the total generating capacity in the United States. Forty systems are federally owned with an aggregate capacity of 39,000 megawatts or 11% of the total. About 2,000 systems are municipally or state-owned with an aggregate generating capacity of 34,000 megawatts or 10% of the total. Finally, the remaining 1,000 cooperatively owned systems have an aggregate capacity of about 5,000 megawatts or less than 2% of the total U.S. generating capacity.[1] Figure 2-1 shows the components of the electric power industry. Minnesota's electrical utility industry consists of 8 privately owned utilities, 129 municipal utilities, and 56 cooperative utilities.

Most electrical utilities act together to interconnect their transmission systems into regional transmission grids that permit the flow of power among utilities and regions. The development of the grid system is due in large part to a change in perception by government, utilities, and the public of the reliability of electrical power generation. In November 1965, the Northeast Power Blackout demonstrated the disparity between the demand for electricity and the reliability problem of meeting that demand by the industry. The need for increased electrical transmission and generation capability was due to an increasing demand growth rate which rose to 7 to 8% per year. In order to maximize efficiency the industry began

FIGURE 2-1

THE ELECTRIC POWER INDUSTRY



Source: U.S. Federal Power Commission, December 1971,

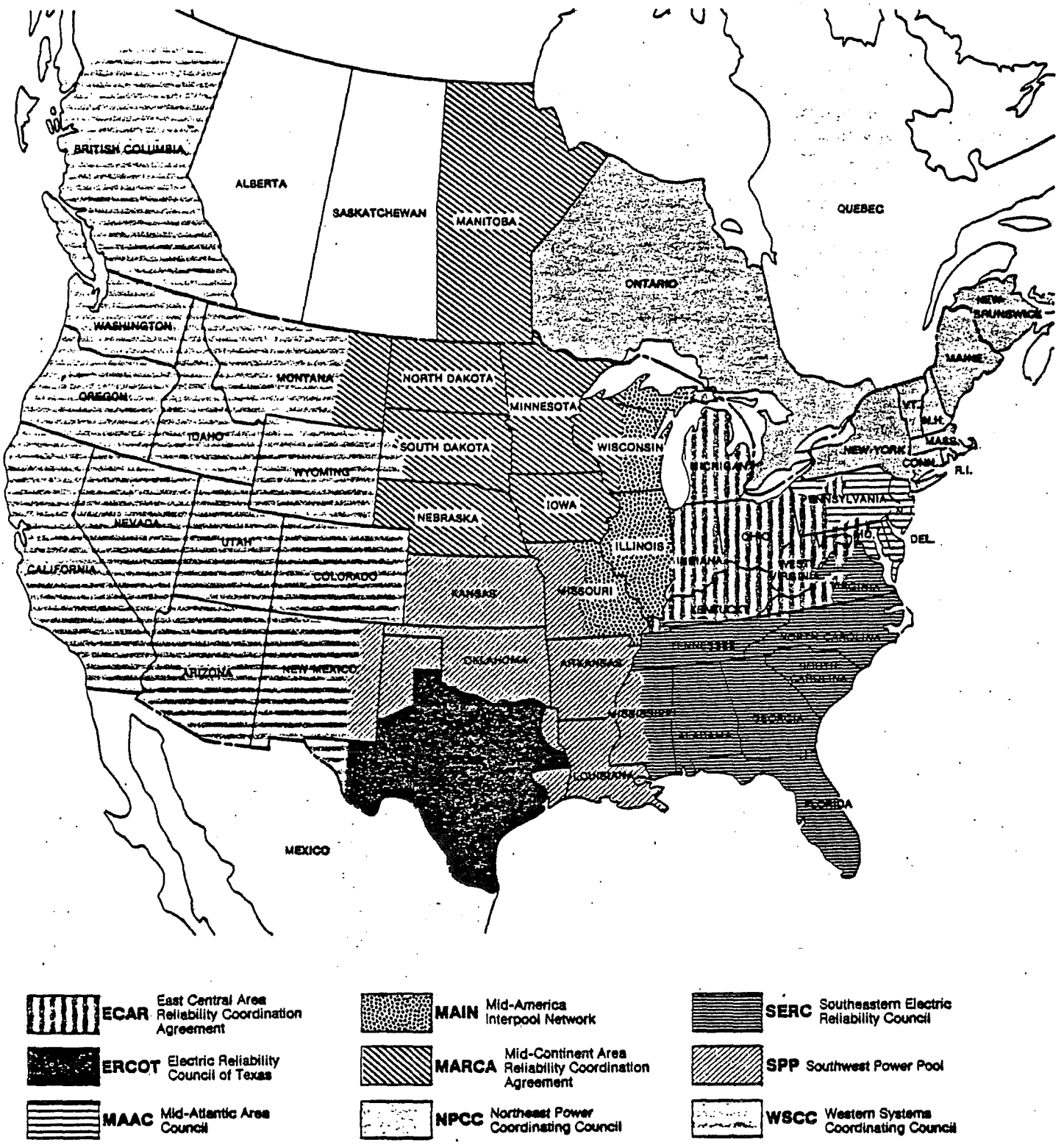
interconnecting its systems and relying upon fewer, but larger, generating facilities. Because of this change in direction toward interconnection and larger plants, the opportunity for system failure increased. The Federal Power Commission, recognizing the consequences if such a failure should occur, urged the formation of area reliability councils within the industry. At the same time, state and local governments became more interested in regulating the construction of new energy facilities.[2]

The electrical utilities, recognizing their responsibility to provide consumers with reliable service, formed the National Electric Reliability Council (NERC) in 1968. This national council is divided into nine regional reliability councils. The regional council that includes Minnesota is called the Mid-Continent Area Reliability Coordination Agreement (MARCA) as shown in Figure 2-2. MARCA is the council which provides the "reliability overview" for the upper midwest region. A complementary organization to MARCA is the Mid-Continent Area Power Pool (MAPP), a private, non-governmental utility organization made up of basically the U. S. portion of MARCA and is not a governmental planning agency. A summary of MAPP and its purpose was provided in the 1978 Advance Forecast Report to the MEQB by the Minnesota/Wisconsin Power Suppliers Group (M/W PSG);[3]

> MARCA (Mid-Continent Area Reliability Coordination Agreement), which is a complementing organization to MAPP (Mid-Continent Area Power Pool), provides the reliability overview for the upper midwest region. The MARCA region covers all or portions of the states of Iowa, Minnesota, North Dakota, South Dakota, Illinois, Montana, Wisconsin, and Nebraska. MARCA is one of nine reliability groups that form the National Electric Reliability Council (NERC).
>
> MAPP is an organization that operates within the MARCA region. The MAPP organization was formed by its respective members to provide a regional power pool to further enhance the reliability and other benefits of interconnected operations and to provide further opportunities to coordinate the installation and operation of generation and transmission facilities on the respective systems of its members.
>
> The MAPP Agreement is binding upon the participants, and each is obligated to provide its share of generating capability, either by installing its own generation, or by purchasing from the surpluses of other participants if its own generation capability is insufficient.

FIGURE 2-2

THE NINE REGIONAL RELIABILITY COUNCILS THAT CONSTITUTE THE N.E.R.C.



Source: Nagel, T.J., "Operating an Electric Utility Today," Science Vol. 201, No. 4360, September 15, 1978, Pg. 989.

> . . . one of the advantages is the formation of a group of utilities into a power pool is that reserve generating capacity can be shared; the consequences of sudden generating unit failure or sudden load increase on one utility system can thereby be spread among the others. If a binding agreement committing the members to share reserves is achieved, the pool can function effectively as a large single utility for purposes of reserve requirements. Just as the component parts of an individual utility cannot meaningfully address reliability of generating capability separately, neither can the individual members of a power pool.
>
> With a reserve capability obligation as exists in MAPP, each member utility carries a share of the total reserves of the pool, and must make it available to all other pool members. Thus, each of the eight utilities participating in this report is able to call upon the entire reserves of all the other utilities in MAPP.
>
> However, whenever another utility in MAPP requires assistance, each MAPP member must reciprocate and provide assistance. In this way, the pool functions as one power system. Each utility's operable generation in excess of its own customers' requirements must be available to the other members of the pool at all times.
>
> Operation of the pool as one system depends on the ability to transport power from one utility to another. This requires that adequate transmission interconnections exist between the utility systems. This is one of the reasons that the reserve margin can be as small as it is, since without this extensive interconnected network, reserve capacity could not be shared.

While area councils formed by the utilities were originally designed to ensure the reliability of the power system, new factors began to play a major role. The most important factors were due to the growing national concern about environmental deterioration. Along with this growing concern was the development of environmental policy as expressed in the National Environmental Policy Act of 1969:[4]

> The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.

This act introduced the concept of environmental impact in the regulatory process. It established that power plants and all other industry should meet environmental protection standards enacted by federal and state government and that adverse environmental effects of facility siting should be minimized.

The Minnesota utilities within MAPP, MARCA, and the NERC derive their existence from the state. The three types of utilities that service Minnesota exist because of many laws enacted by the legislature. These laws have been codified into four chapters of the Minnesota Statutes. Table 2-1 summarizes many of the important provisions of these laws. Table 2-1 is divided into four parts. Part I summarizes important General Provisions on Corporations as these provisions relate to Public Service Corporations. Part II discusses those provisions that affect electrical cooperative associations. Part III reviews those provisions relating to municipal electrical power. Finally, Part IV reviews those provisions relating to municipal electric light and power plants.

The first type of utility authorized by the legislature is the public service corporations organized under the General Provisions of Corporations, Minnesota Statutes §300.03 et. seq. These corporations are investor or privately owned utilities which furnish power for public use. The General Provisions permit the state to supervise and regulate the business methods and management of the corporations and fix the compensation they may receive for their services. These corporations are subject to many restrictions not placed on other corporations organized under other provisions of Minnesota Statutes, Chapter 300. These sections also define a public utility to mean any corporation that generates electricity and which is neither a municipality nor any person that furnishes electricity services to less than 50 people including cooperative associations (M.S. §300.11, Subdivision 1 and 4).

The second type of utility authorized by the legislature is the electrical cooperative association organized under Minnesota Statutes, Chapter 308. These utilities are subject to most provisions of the public service corporations.

The third type of utility authorized by the legislature is the municipal utility organized under Minnesota Statutes, Chapter 453 and Chapter 455. Utilities organized under Chapter 453 are municipal corporations consisting of two or more

TABLE 2-1

SUMMARY OF ELECTRICAL UTILITY CORPORATE LAW

PART & SECTION	PURPOSE
Part I	General Provisions on Corporations
M.S. § 300.03	Corporations may be organized . . . to furnish power for public use . . . Corporations must obtain a franchise from any city to which they provide power. Such corporations are called Public Service Corporations.
§ 300.04	The state has the right to supervise and regulate the business methods and management of public service corporations and fix the compensation it may charge for its services . . . Public service corporations are subject to restrictions imposed upon them by the municipalities in which they do business. Such corporations may acquire by eminent domain private property necessary for business.
§ 300.10	Any public service corporation may mortgage or issue deeds of trust . . . to secure money borrowed . . . for corporate purposes.
§ 300.111	Subd. 1 - "Public Utility" means corporations that generate electricity and which are neither municipalities nor persons who furnish electricity to less than 50 people. Subd. 4 - "Public Utility" means cooperative associations maintaining or controlling equipment . . . for electrical services.
§ 300.112	All filing required under the Uniform Commercial Code shall be made to the Secretary of State of public service corporations.
§ 300.114	A mortgage or deed of trust to secure a debt covering the whole or any part of its easements for . . . electric . . . service may be filed with the Secretary of State along with financial statements of such purpose.
Part II	Corporations: Cooperative Associations
M.S. § 308.43	Cooperative associations organized under Minnesota Statutes, Chapter 308 for the purpose of providing rural electrification may enter into contracts with each other . . . and may share losses (e.g., equipment). This does not apply to insurance companies.
Part III	Municipal Electric Power
M.S. § 453.51	The purpose of Minnesota Statutes § 453.51 - .62 is to provide those cities which operate utilities with a means to secure an adequate supply of electricity. Two or more cities are authorized to form a separate municipal corporation with the power to acquire and finance electrical utilities.
§ 453.53	Two or more cities may incorporate to form a Municipal Power Agency (MPA). The language of the agreement is provided under this section, which also regulates the business.
§ 453.54	Extends powers to the MPA to further the purpose of supplying an adequate supply of electricity to cities.

TABLE 2-1 (continued)

PART & SECTION	PURPOSE
§ 453.55	MPA may issue bonds and notes.
§ 453.56	MPA may exercise power of eminent domain.
§ 453.57	MPA may establish rules and set rates.
§ 453.58	A city by resolution may exercise any of the powers granted in the act; this section specifies administrative procedure for doing so.
§ 453.59	A city or MPA may enter into contracts under the act without advertising for bids, such contracts are enforceable.
§ 453.60	Bonds are authorized security for investments.
§ 453.62	Minnesota Statutes § 453.51 - .62 should be liberally construed.
Part IV	Electric Light and Power Plants
M.S. § 455.01	Cities of the second and third class may construct or purchase electric light plants.
§ 455.05	The governing body of any home rule charter city of the third class may construct a municipal electric light and power plant . . . and sell . . . light, heat, and power to private consumers within and outside the city.
§ 455.13	City may purchase electricity.
§ 455.14	Obligations incurred by a city in making contracts under M.S. § 455.13 shall not be considered part of its indebtedness.
§ 455.23	Any home rule charter city of the fourth class . . . can install equipment as may be necessary.
§ 455.25	City may pay for equipment out of treasury or issue bonds.
$ 455.26	City may extent lines into any statutory city lying within three miles of its limits with the consent of the council of the other . . . city.
§ 455.27	The council may enter into contracts for . . . compansation . . . and for the reimbursement of the cost of extension.
§ 455.28	The council of the other city may enter into contracts for the maintenance of equipment.
§ 455.29	The governing body of the city . . . may extend electrical service to 30 miles from city limits by a two-thirds vote of governing body and approval of the idea by voters.
§ 455.30	Lines may not be extended into other city under M.S. § 455.29 without approval of governing body of other city.
§ 455.32	Surplus electricity may be disposed of outside city limits subject to restrictions of Minnesota Statutes, Chapter 216B.

cities formed to acquire and finance electrical facilities. This law extends powers to Municipal Power Agencies (MPAs) to assure an adequate supply of electricity to cities. Chapter 455 provides that city of the second, third, or fourth class, acting alone, may construct or purchase electric light plants.

Minnesota has developed a set of laws and regulations for the development of large electrical power generating plants and large high voltage transmission lines (HVTLs). The laws, which include the Minnesota Energy Agency Act, the Power Plant Siting Act, and the Environmental Policy Act, require a sequential review of proposed energy facilities. The process basically consists of four steps. First, the utility must obtain a certificate of need from the Minnesota Energy Agency (MEA). Second, after establishing the need for a new facility, the utility must obtain a certificate of site compatibility from the MEQB. The third step is the compilation in an environmental impact statement (EIS) of information necessary for decision making. The final step requires the utility to obtain permits from various agencies for the construction and operation of the proposed facility. The next three sections of this chapter describe those agencies that provide the authorizations in this sequential decision making process.

2.2 Minnesota Energy Agency

The Minnesota Energy Agency (MEA) was established in 1974 pursuant to the Minnesota Energy Agency Act (Minnesota Statutes, Chapter 116H). There was substantial debate at the time MEA was created as to the necessity of another administrative agency. The legislature, in response to the growing concern over Minnesota's expanding bureaucracies, created the Legislative Commission on Energy (LCE) to assist the MEA "in its first year of operation and to provide the Governor and Legislature with an independent assessment of the State's energy situation--both present and future."[5] In its final report the LCE addressed the issue of whether there should be an energy agency:[6]

> The question 'Should there be an Energy Agency?' seems both too trite and unrealistic to be dwelt on in this report. It is the firm

> conviction of the Commission that the Energy Agency is necessary and should be retained as a permanent unit within state government.

Under the Minnesota Energy Agency Act, the MEA will exist only until June 30, 1983, unless the legislature votes to continue the agency beyond that time.

The finding and purpose for the creation of the MEA is found in Section 1:[7]

> 116H.01. FINDINGS AND PURPOSE. The legislature finds and declares that the present rapid growth in demand for energy is in part due to unnecessary energy use; that a continuation of this trend will result in serious depletion of finite quantities of fuels, land and water resources, and threats to the state's environmental quality; that the state must insure consideration of urban expansion, transit systems; economic development, energy conservation and environmental protection in planning for large energy facilities; that there is a need to carry out energy conservation measures; and that energy planning, protection of environmental values, development of Minnesota energy sources, and conservation of energy require expanded authority and technical capability and a unified, coordinated response within state government.
>
> The legislature seeks to encourage thrift in the use of energy, and to maximize use of energy-efficient systems, thereby reducing the rate of growth of energy consumption, prudently conserving energy resources, and assuring statewide environmental protection consistent with an adequate, reliable supply of energy.

Table 2-2 summarizes the main provisions of the act.

The MEA is divided into four divisions: conservation, administration, data and analysis, and alternative energy development. These four divisions oversee the nine major activities of the agency. The MEA employs over 90 people (38 state plus federal and legislature), three times the 1976 level.[8,9] Figure 2-3 describes the energy agency organization. The four activities that this report is primarily concerned with are the conservation program, forecasting activity, certificate of need activity, and the research program.

A. Conservation

One of the principal functions of the MEA is the conservation program. It may be argued that conservation is the only clear energy policy in Minnesota. While debate has occurred on fuel choice, siting policy, and other issues, no firm energy policy has developed. The importance that energy conservation plays in overall energy policy has been spelled out by the MEA:[10]

TABLE 2-2

SUMMARY OF THE MINNESOTA ENERGY AGENCY ACT

SECTION	PURPOSE
M.S. § 116H.001	The Minnesota Energy Agency Act (MEAA) expires on June 30, 1983 unless renewed by the legislature. If expired, the activities under this act may be transferred to other agencies.
§ 116H.01	The findings and purpose of MEAA are specified.
§ 116H.02	Subd. 5 - "Large energy facility" means: (a) any electric power generating plant or combination of plants at a single site with a combined capacity of 50,000 kilowatts or more, or any facility of 5,000 kilowatts or more which requires oil, natural gas, or natural gas liquids as a fuel and for which an installation permit has not been applied for by May 19, 1977 pursuant to Minn. Reg. APC 3(a); (b) any high voltage transmission line with a capacity of 200 kilovolts or more and with more than 50 miles of its length in Minnesota; or any high voltage transmission line with a capacity of 300 kilovolts or more with more than 25 miles of its length in Minnesota.
§ 116H.03	The Minnesota Energy Agency (MEA) is created.
§ 116H.05	Prohibits conflict of interest in the director of the MEA.
§ 116H.07	The duties of the director of the MEA include: (a) Manage the agency as the central repository within the state government for the collection of data on energy; (b) Prepare and adopt an emergency allocation plan specifying actions to be taken in the event of an impending serious shortage of energy, or a threat to public health, safety, or welfare; (c) Undertake a continuing assessment of trends in the consumption of all forms of energy and analyze the social, economic, and environmental consequences of these trends; (d) Carry out energy conservation measures as specified by the legislature and recommend to the governor and the legislature additional energy policies and conservation measures as required to meet the objectives of sections 116H.01 to 116H.15; (e) Collect and analyze data relating to present and future demands and resources for all sources of energy, and specify energy needs for the state and various service areas as a basis for planning large energy facilities; (f) Require certificate of need for construction of large energy facilities; (g) Evaluate policies governing the establishment of rates and prices for energy as related to energy conservation, and other goals and policies of sections 116H.01 to 116H.15, and make recommendations for changes in energy pricing policies and rate schedules; (h) Study the impact and relationship of the state energy policies; to international, national, and regional energy policies;

TABLE 2-2 (continued)

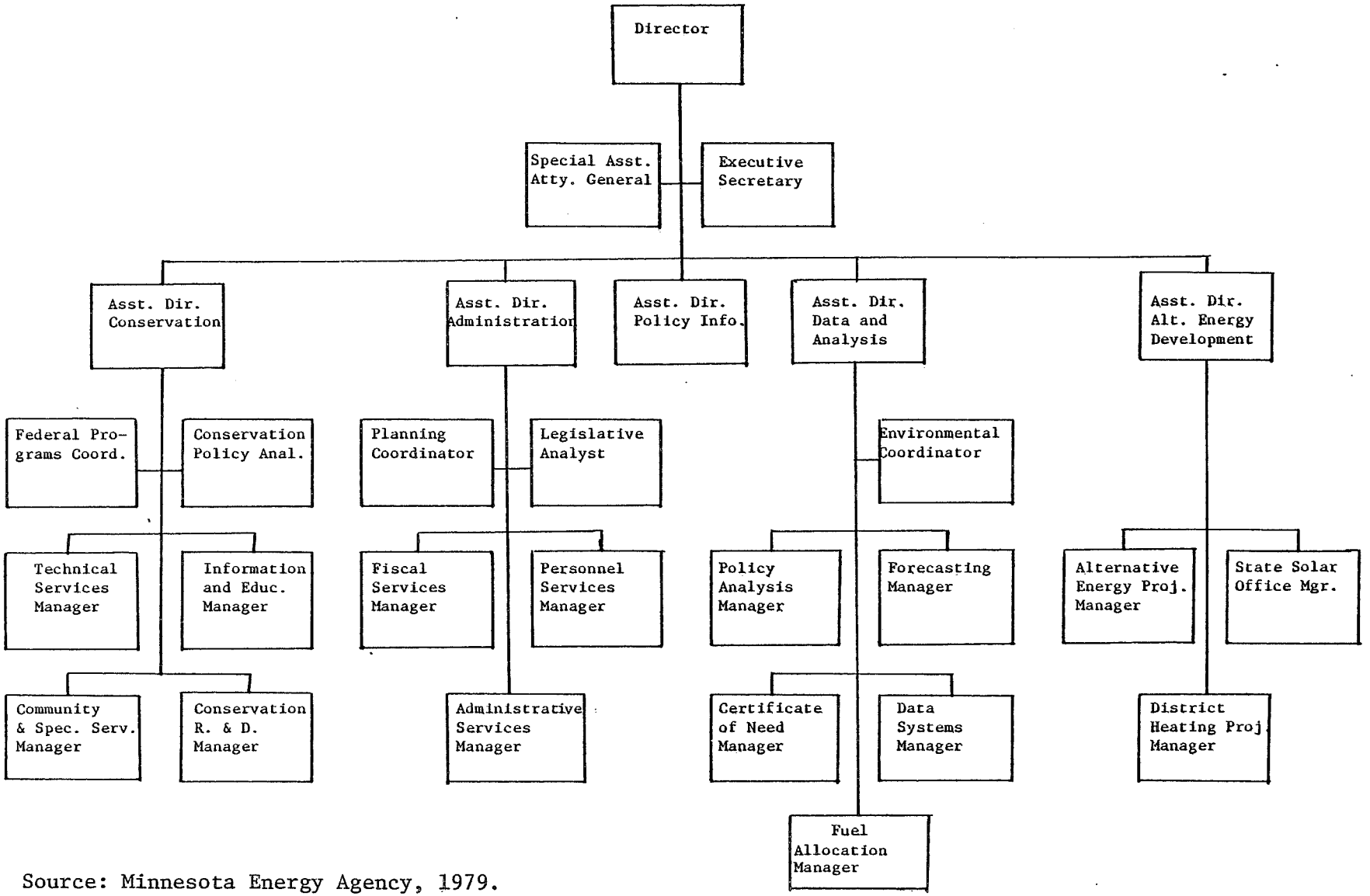
SECTION	PURPOSE
	(i) Design a state program for the conservation of energy; this program shall include but not be limited to, general commercial, industrial, and residential areas; such program shall also provide for the evaluation of energy systems as they relate to lighting, heating, refrigeration, air conditioning, building design and operation, and appliance manufacturing and operation; (j) Inform and educate the public about the sources and uses of energy and the ways in which persons can conserve energy; (k) Dispense funds made available for the purpose of research studies and projects of professional and civic orientation, which are related to either energy conservation or the development of alternative energy technologies which conserve nonrenewable energy resources while creating minimum environmental impact; (j) Charge other governmental departments and agencies involved in energy related activities with specific information gathering goals and require that those goals be met.
M.S. § 116H.08	The director of the MEA has the power to adopt rules, make compacts, enter into interstate contracts, and distribute informational material.
§ 116H.087	The director of the MEA must develop legislatively approved radio and TV announcements about tax credits, energy conservation, and houseing programs.
§ 116H.09	The director of the MEA must create an energy allocation plan to reduce energy use in an energy emergency. Such plan must be reviewed and possibly revised at least once every five years.
§ 116H.10	The MEA must develop and maintain an effective program of energy statistics. Each utility must prepare 5, 10, and 15 year energy forecasts specifying energy demand for its service areas.
§ 116H.11	The MEA must prepare a biannual state energy policy and conservation report.
§ 116H.12 - .129	These sections provide for specific energy conservation measures and local government and public school surveys.
§ 116H.13	The MEA is required to provide assessment of need criteria and issue certificates of need for large energy facilities. In assessing need the director of MEA must evaluate: (1) The accuracy of the long range energy demand forecasts on which the necessity for the facility is based; (2) The effect of existing or possible energy conservation programs under sections 116H.01 to 116H.15 or federal or state legislation on long term energy demand; (3) The relationship of the proposed facility to overall state energy needs;

TABLE 2-2 (continued)

SECTION	PURPOSE
	(4) Promotional activities which may have given rise to the demand for this facility; (5) Socially beneficial uses of the output of this facility, including its uses to protect or enhance environmental quality; (6) The effects of the facility in inducing future development; (7) Possible alternatives for satisfying the energy demand including but not limited to potential for increased efficiency of existing energy generation facilities; and (8) The policies, rules and regulations of other state and federal agencies and local governments. Any application for need must be accompanied by a fee not to exceed $50,000. Other state agencies may issue permits for siting, construction, and operation of large energy facilities, but the issuance or denial of a certificate of need rests exclusively with the director of the MEA.
§ 116H.14	The director of the MEA has subpoena power.

FIGURE 2-3

ORGANAZATION OF THE MINNESOTA ENERGY AGENCY, 1979



Source: Minnesota Energy Agency, 1979.

> Energy conservation has been seen too often in the past as a "nice idea" that stood apart from other energy policy matters. This attitude must change if conservation is to get the serious attention it requires. Conservation must be regarded as an essential element in energy policy decisions. The development of an energy policy, at either the national or state level, involves projecting energy supplies, projecting energy needs, analyzing the anticipated gaps between supplies and needs, and designing programs to close such gaps.
>
> Energy need may not be the same as energy demand, and historical consumption may not be a good indicator of future need. Energy use patterns will change, and factors affecting demand may move in unanticipated directions. In this setting, conservation planning becomes a sophisticated endeavor. Meeting society's objectives while using less energy makes money available for other purposes and saves energy for the future. Reducing the demand for energy through conservation reduces the stress on the development of traditional energy supplies, diminishes the likelihood of an energy "crisis," and provides more time for the development of alternate energy sources.

The State of Minnesota and the federal government have been active in establishing specific energy conservation policies. The Energy Policy and Conservation Act, 42 USC §6201 et. seq. (P.L. 94-163, as amended) provided federal guidelines for the promotion of energy conservation, requested that the governor of each state submit an energy conservation report, and provided for federal assistance to the states in support of state conservation programs. Congress reached the following conclusions in establishing this act:[11]

> Sec. 361 (a) The Congress finds that--
> (1) the development and implementation by States of laws, policies, programs, and procedures to conserve and to improve efficiency in the use of energy will have an immediate and substantial effect in reducing the rate of growth of energy demand and in minimizing the adverse social, economic, political, and environmental impacts of increasing energy consumption;
>
> (2) the development and implementation of energy conservation programs by States will most efficiently and effectively minimize any adverse economic or employment impacts of changing patterns of energy use and meet local economic, climatic, geographic, and other unique conditions and requirements of each State; and
>
> (3) the Federal Government has a responsibility to foster and promote comprehensive energy conservation programs and practices by establishing guidelines for such programs and providing overall coordination, technical assistance, and financial support for specific State initiatives in energy conservation.

(b) It is the purpose of this part to promote the conservation of energy and reduce the rate of growth of energy demand by authorizing the Administrator to establish procedures and guidelines for the development and implementation of specific State energy conservation programs and to provide Federal financial and technical assistance to States in support of such programs.

While a discussion of the specific conservation programs is beyond the scope of this study, a review of the agency's general conservation program is relevant. The role of the conservation division within the MEA is "to encourage thrift in the use of energy, and to maximize the use of energy efficiency systems."[12] The conservation division is divided into four sections: technical service, information and education, community and special services, and conservation research and development. The technical services section is designed to develop energy conservation programs which have state-wide impact and to provide assistance to other energy conservation programs. The purpose of the information and education section is to "inform and educate the public about the sources and uses of energy and the ways in which persons can conserve energy."[13] Finally, the community and special services section plans and implements outreach programs in counties and cities. In sum, the MEA conservation division "researches and develops conservation standards, outlines procedures for meeting these standards, publishes manuals and pamphlets on conservation measures, provides support to energy education programs, maintains an Energy Conservation Information Center, and provides an outreach energy conservation program to Minnesota cities, counties, and other citizen groups."[14]

B. Forecasting

The MEA is required to "develop and maintain an effective program of collection, compilation and analysis of energy statistics."[15] This is one of the principal functions of the Data and Analysis Division. The MEA requires electrical utilities, among others, to submit annually 15-year forecasts of additional generating and transmission facility requirements (6 MCAR §2.0201 to .0213). The forecasting section within this division uses the data collected under this provision to assess the economic impact of various energy policies and to forecast fuel demand

and fuel prices in the state by the use of models that include parameters about the state's economy and population. The MEA then uses these models for policy analysis. The following is a description of some of the ways these models are used:[16]

> The Agency has developed an input-output model that relates energy use to economic output and employment. The model predicts electric use in kilowatt hours and total non-electric energy use in Btu for commercial and industrial energy use for thirty-five sectors of the economy. A fuel substitution model distributes total non-electric energy projections to different fuel types considering relative fuel prices and obstacles to fuel shifts defined by the current patterns of consumption. A model is under development to predict residential fuel use considering different mixes of building types and different assumptions on the prices and availability of fuels.

The MEA forecasts the demand for electricity using a methodology independent of that of the electrical utilities. The agency does, however, depend on the electrical utilities for energy consumption and demand data and state and federal agencies for demographic and economic data. In addition, the MEA states that it now has "sophisticated forecasting methodologies which are independent of and are believed to be more accurate than those of the electrical utilities."[17] The MEA staff has completed peak and electrical energy forecasts for NSP, MP&L, UPA, CPA, MPC, and DPC. These forecasts may be used in upcoming certificate of need proceedings.

C. Certificate of Need

The Data and Analysis Division also has responsibility for the certificate of need process. The purpose of the certificate of need program is to ensure that large energy facilities and large HVTLs built in Minnesota are needed and represent the best alternatives for the state. The certificate of need process is the initial step in the decision making process for large energy facilities. The process primarily concerns energy demand without significant consideration of environmental effects. This is largely due to the lack of a specific site for the facility. Some general environmental information is provided in position papers that state agencies must submit. (See Chapter Four, section 4.1 for an analysis

of the MEA law and environmental policy).

The MEA is required to evaluate many factors in assessing need (M.S. §116H.13, Subd. 3 lists these factors) for a large electrical energy facility and HVTLs. Under the rules promulgated by the MEA, a certificate of need must be granted if:[18]

1. The probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states, considering:

    a. The accuracy of the applicant's forecast of demand for the type of energy that would be supplied by the proposed facility:
    b. The effects of the applicant's existing or expected conservation programs and state and federal conservation programs;
    c. The effects of promotional practices of the applicant which may have given rise to the increase in the energy demand, particularly promotional practices which have occurred since 1974;
    d. The ability of current facilities and planned facilities not requiring certificates of need to meet the future demand; and
    e. The effect of the proposed facility, or a suitable modification thereof, in making efficient use of resources;

2. A more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record by parties or persons other than the applicant, considering:

    a. The appropriateness of the size, the type, and the timing of the proposed facility compared to those of reasonable alternatives;
    b. The cost of the proposed facility and the cost of energy to be supplied by the proposed facility compared to the costs of reasonable alternatives and the cost of energy that would be supplied by reasonable alternatives;
    c. The effects of the proposed facility upon the natural and socio-economic environments compared to the effects of reasonable alternatives; and
    d. The expected reliability of the proposed facility compared to the expected reliability of reasonable alternatives;

3. It has been demonstrated by a preponderance of the evidence on the record that the proposed facility, or a suitable modification thereof, will provide benefits to society in a manner compatible with protection of the natural and socio-economic environments, including human health, considering:

    a. The relationship of the proposed facility, or a suitable modification thereof, to overall state energy needs;
    b. The effects of the proposed facility, or a suitable modification thereof, upon the natural and socio-economic environments compared to the effects of not building the facility;
    c. The effects of the proposed facility, or a suitable modification thereof, in inducing future development; and

d. The socially beneficial uses of the output of the proposed facility, or a suitable modification thereof, including its uses to protect or enhance environmental quality; and that

4. It has not been demonstrated on the record that the design, construction or operation of the proposed facility, or a suitable modification thereof, will fail to comply with relevant policies, rules and regulations of other state and federal agencies and local governments.

There has been considerable public outrage expressed over the MEA's latest certificate of need cases. In its second biannual report to the legislature, the MEA summarized some of the public involvement as follows:[19]

> In the NSP matter, Clear Air, Clear Water Unlimited (CACW) and Save our Environment and Land for the Future (SELF) participated as parties to the public hearings. In the MP&L-UPA matter, the Society Concerned About a Ravaged Environment (SCARE), the Floodwood-Fine Lakes Citizens Group, and the Great Lakes Gas Transmission Company participated as parties. In addition, one member of the Legislature and two other witnesses of the public testified at the hearings.

The NSP matter refers to NSP's application for certificate of need for Sherco 3 & 4. The MP&L-UPA matter refers to the certificate of need for the Floodwood-Fine Lakes project.

In addition, three certificate of need applications have been appealed to the courts. The following excerpt from the MEA report summarizes the results of the cases:[20]

> Three Certificate of Need decisions have been appealed to the judicial system. A certificate was granted to UPA and Cooperative Power Association (CPA) on April 2, 1976, for a 400-kilovolt, direct-current transmission line. That decision was challenged in the district court by Counties United for Rural Environment (CURE) and Families Are Concerned Too, Inc. (FACT). No Power Line (NPL), Preserve Grant County (PGC), and Save Our Countryside (SOC) also attempted to raise questions regarding the certificate. All challenges were rejected by a specially constituted three-judge district court panel on July 15, 1977. The CURE challenge to the noninclusion of cost factors in the Certificate of Need process was carried to the Minnesota Supreme Court. On September 30, 1977, the Supreme Court ruled against CURE.
>
> A Certificate of Need was granted to NSP and MP&L on June 4, 1977, for a 500-kilovolt transmission line from Manitoba, Canada, to the Twin Cities area. The decision was challenged by a landowner in Chisago County. His attorney, who represented CURE in the UPA/CPA suits, raised the same issue as in the CURE lawsuit--whether the Certificate of Need statute is constitutionally defective because no specific cost test is included therein. The appellant carried the appeal to the Minnesota Supreme Court, which dismissed the appeal after the prehearing conference.

> The third petition for review of a Certificate of Need decision was filed in August, 1977, by SELF, protecting the issuance of a certificate to NSP for the aforementioned 800-megawatt electric generating facility. This is the only appeal which has questioned the correctness of the decision itself rather than the legal basis of the process. The petitioner essentially asserts that there is an inadequate factual basis for decision as to size and timing of the proposed facility. No actions beyond the filing of the petition have occurred.

Two important points that were clarified by the appeals should be noted. In No Power Line v. Minnesota Environmental Quality Council, 1977, the court ruled that the issuance of certificate of corridor compatibility by the MEQB prior to, but contingent upon the issuance of a certificate of need by the MEA for more power, was proper. In addition, the court ruled that the legislature's delegation of authority to the MEA and MEQB for determining need and site compatibility, respectively, was not an unconstitutional delegation of power contrary to the provisions of Article III of the Minnesota Constitution.

D. Research

The Alternative Energy Development Division within the MEA is responsible for carrying out research and demonstration projects on alternative energy sources and innovative conservation techniques and for pursuing funding possibilities for work on alternative energy systems. The principal activities of this division are as follows:[21]

> The major activities during this biennium have been participation in the effort to locate the National Solar Energy Research Institute in Minnesota, the Minnesota Alternative Energy Research and Development Policy Formulation Projects, and two Alternative Energy Systems Demonstration Programs.
>
> In addition to the major programs listed above, Research Division personnel spend a large fraction of their time responding to requests for information and evaluating unsolicited formal and informal proposals and suggestions concerning alternative energy sources. The Energy Agency has assisted numerous organizations in obtaining funding for alternative energy research and demonstration projects. A number of district heating (or cogeneration) projects have been funded in Minnesota because of preliminary work by the Research Division.

2.3 Minnesota Environmental Quality Board (MEQB)

In 1973 the legislature created the Minnesota Environmental Quality Board (MEQB) to coordinate and encourage debate on environmental issues.[22]

> The legislature of the state of Minnesota finds that problems related to the environment often encompass the responsibilities of several state agencies and that solutions to these environmental problems require the interaction of these agencies. The legislature also finds that further debate concerning population, economic and technological growth should be encouraged so that the consequences and causes of alternative decisions can be better known and understood by the public and its government.

The MEQB is composed of seven agency heads,a representative of the governor's office, and four members of the citizen advisory committee. The director of the State Planning Agency is the chairman of the MEQB. Table 2-3 summarizes the law relating to the MEQB. There are three other laws relating to energy overseen by the MEQB in addition to its enabling legislation. These laws include the Environmental Coordination Procedures Act, the Power Plant Siting Act, and the Environmental Policy Act. Because the Environment Procedures Coordination Act primarily relates to issues of permitting, it will be reviewed in Section 2.4 of this paper. The latter two laws are discussed below.

A. Power Plant Siting Act

Power plant siting is basically a land use regulation function. Land use regulation can generally be divided into four areas: (1) direct state level regulation of local land use; (2) indirect state level regulation by prohibiting development without state approval; (3) state level guidelines for use by local governments; and (4) regional government regulation of land use on a regional basis.[23] Power plant siting clearly falls into the first area, i.e., direct state regulation of siting power plant and HVTL facilities.

The purpose of the Power Plant Siting Act (PPSA) is to find the most environmentally acceptable locations for large power plants and large HVTLs. This act is the second step in the sequential process for locating new facilities. The policy of the act was spelled out clearly by the legislature:[24]

TABLE 2-3

SUMMARY OF THE MINNESOTA ENVIRONMENTAL QUALITY BOARD ACT

SECTION	PURPOSE
M.S. § 116C.01703	Creates the Minnesota Environmental Quality Board (MEQB) consisting of the heads of SPA, PCA, DNR, MDA, DOH, MEA, governor's office, chairman of CAC/MEQB, and three other members of the CAC/MEQB because of overlapping agency responsibilities.
§ 116C.04	The MEQB's power and duties include the study of environmental problems of interdepartmental concern; the review of programs of state agencies that affect the environment; the review of regulations and criteria for denying permits by state agencies to resolve conflicts; and it may establish citizen task forces, advise the governor, and convene environmental congresses.
§ 116C.05	Establishes a citizen advisory committee (CAC).
§ 116C.06	Requires the MEQB to hold public hearings on matters that are of major environmental impact and may delegate such authority to a hearings officer.
§ 116C.07	Requires the MEQB to prepare a long-range program and plan.
§ 116C.08	The MEQB may apply, receive, and disperse federal funds made available to state.

> The legislature hereby declares it to be the policy of the state to locate large electric power facilities in an orderly manner compatible with environmental preservation and the efficient use of resources. In accordance with this policy the board shall choose locations that minimize adverse human and environmental impact while insuring continuing electric power system reliability and integrity and insuring that electric energy needs are met and fulfilled in an orderly and timely fashion.

Table 2-4 summarizes the main provisions of the act and the MEQB rules for routing HVTLs and siting large electric power generating plants.

The sequential process for locating large new energy facilities has been subject to extensive judicial review. The decisions in these cases have involved interpretations of all the laws pertaining to the sequential process, but have extensively interpreted the Power Plant Siting Act. A summary of the act and regulations below include judicial interpretations where appropriate. In general, the court found in No Power Line v. Minnesota Environmental Quality Board, 1977, (hereinafter referred to as NPL v. MEQB, 1977) that the purpose of the act was:[25]

> . . . to ensure that the future siting of power plants and transmission lines would be carried out in an orderly fashion according to a rational design, rather than haphazardly, and possibly unnecessarily, at the whim of individual public utilities whose decisions might fail to consider or comport with the public interest. Minnesota Statutes 1976, §§116C.55 to 116C.60. The two crucial concepts that permeate the entire act are that the process should be orderly and that there should be public participation in all stages of agency decision making.

In addition, the court found that the MEQB had subject matter jurisdiction over questions surrounding construction of a HVTL.[26]

There are three activities to be performed under the act: (1) advanced forecasting; (2) inventories of study areas and (3) designation of sites and routes for new facilities, including consideration of the savings clause. The MEA also requires advanced forecasting (see Table 2-2). However, the PPSA provision is more detailed and requires biannual information on "tentative regional location and general size and type" of all plants and lines to be operated by the utility during the ensuing 15 years; identification of existing plants and lines; the projected demand for electricity within the next 15 years with underlying assumptions for the forecast;

TABLE 2-4

SUMMARY OF THE POWERPLANT SITING ACT

ART & SECTION	PURPOSE
art I	Power Plant Siting Act
.S. § 116C.52	Definitions. Subd. 3 "High Voltage Transmission Line" means a conductor of electric energy and associated facilities designed for and capable of operation at a nominal voltage of 200 kilovolts or more, except that the board, by rule, may exempt lines pursuant to Section 116C.57, Subdivision 5. Subd. 4 "Large Electric Power Generating Plant" shall mean electric power generating equipment and associated facilities designed for and capable of operation at a capacity of 50,000 kilovolts or more.
§ 116C.53	Siting Authority. Subd. 1. Policy. The legislature hereby declares it to be the policy of the state to locate large electric power facilities in an orderly manner compatible with environmental preservation and the efficient use of resources. In accordance with this policy the board shall choose locations that minimize adverse human and environmental impact while insuring continuing electric power system reliability and integrity and insuring that electric energy needs are met and fulfilled in an orderly and timely fashion. Subd. 2. The MEQB has siting and routing authority. Subd. 3. The MEQB may work with other states for interstate routing of HVTLs.
§ 116C.54	Each utility must submit a 15-year advanced forecasting report. (This Section specifies information to be included in the report.)
§ 116C.55	This Section requires a public planning process where all interested persons can participate in developing criteria and standards in preparing an inventory of large electric power generating plant study areas. It also requires the MEQB to adopt an inventory of large electric generating plant study areas.
§ 116C.57	This Section provides for reports and procedures for the designation of sites and routes, emergency certification of site compatibility or HVTL permits, specifies considerations in designating sites and routes, provides for exemptions for certain routes and specifies procedures for such exemptions, and provides for recording of survey points.
§ 116C.58	Requires an annual public hearing on MEQB inventory of study areas and other MEQB/PPSA activities.
§ 116C.59	This Section provides for an advisory committee for public participation on site and route selection, requires broad spectrum public participation; provides for a public advisor for people affected by sites or routes, and provides for a scientific advisory committee for route and site planning.
§ 116C.61	The MEQB certificate of site compatibility is controlling over the provisions of state, regional, county, local, and special purpose governments. These government agencies and political subdivisions are required to issue permits. State agencies shall participate in public hearings on site or route designations.

TABLE 2-4 (continued)

PART & SECTION	PURPOSE
§ 116C.62	Utilities may improve a site or route for four years before recertifying to MEQB that they meet permit conditions.
§ 116C.63	Utility has right of eminent domain; granted right of condemnation specifies procedures.
§ 116C.64	If the MEQB fails to act within the time specified in Section 116C.57, any affected utility may seek an order of the district court requiring the MEQB to designate or refuse to designate a site or route.
§ 116C.65	Any utility, party, or person aggrieved by a decision has the right of judicial review.
Part II	MEQB Regulations 71-82
MEQB § 71	Purpose and Policy. It is the purpose of the Act and the policy of the State to locate large electric power facilities in an orderly manner compatible with environmental preservation and the efficient use of resources. In accordance with this policy, the Board shall choose locations that minimize adverse human and environmental impact while ensuring continuing electric power system reliability and integrity and ensuring that electric energy needs are met and fulfilled in an orderly and timely fashion. The Board shall provide for broad spectrum citizen participation as a principle of operation.
§ 73	Specifies procedures for designating routes. H. Criteria for the Evaluation of Routes. In selecting a route and issuing a construction permit, the Board shall seek to minimize adverse human and environmental impact, maximize the efficient use of resources, and ensure continuing electric power system reliability. 1. Considerations for Designation of a Route and Issuance of a Construction Permit. The Board shall make an evaluation of the following considerations prior to issuance of a construction permit. In its evaluation of the following considerations prior to issuance of given geographical area, identify the potential impacts so that it may select a route with the least adverse impact. a. Identification of Geographical Characteristics and Potential Impacts. The Board shall identify the geographical characteristics and potential impacts in the following categories: (1) Human settlement, including development patterns; (2) Economic operations, including agricultural, forestry, recreational, and mining operations; (3) The natural environment and public land, including natural areas, wildlife habitat, waters, recreational lands and lands of historical and/or cultural significance; (4) Reliability, cost, and accessibility. b. Methods of Minimizing Impacts. In selecting a route with the least adverse impact, the Board shall make an evaluation of each of the following categories: (1) Existing land use or management plans, and established methods of resource management; (2) Routes along or sharing existing rights-of-way;

TABLE 2-4 (continued)

PART & SECTION	PURPOSE
	(3) Routes along survey and natural division lines and field boundaries so as to minimize interference with agricultural operations; (4) Structures capable of expansion in transmission capacity through multiple circuiting or design modifications to accommodate future high voltage transmission lines; and (5) Alternate structure types and technologies. 2. Designated Lands. Certain lands within the state have been designated for preservation by action of the state or federal government for the benefit of the people and for future generations. No route shall be designated by the Board through State or National Wilderness Areas. No route shall be designated by the Board through State or National Parks and State Scientific and Natural Areas unless: a. A route in a designated area would not materially damage or impair the purpose for which the land was designated; and b. Circumstances exist in all alternate routes which would be more severely detrimental to humans or the environment if any alternate were selected. In the event that such an area is approved, the Board may require the applicant to take measures to minimize impacts which adversely affect the unique character of designated lands. Economic considerations alone shall not justify approval of these designated lands. No route shall be designated by the Board in violation of federal or state statute or law, rule, or regulation.
§ 74	Specifies procedures for designating sites. H. Criteria for the Evaluation of Sites. The following criteria and standards shall be used to guide the site suitability evaluation and selection process. Not all site selection criteria are applicable to all plants to the same degree. 1. Site Selection Criteria. The following criteria shall be applied in the selection of sites: a. Preferred sites require the minimum population displacement. b. Preferred sites minimize adverse impacts on local communities and institutions. c. Preferred sites minimize adverse health effects on human population. d. Preferred sites do not require the destruction or major alteration of land forms, vegetative types, or terrestrial or aquatic habitats which are rare, unique, or of unusual importance to the surrounding area. e. Preferred sites minimize visual impingement on waterways, parks, or other existing public recreation areas. f. Preferred sites minimize audible impingement on waterways, parks, or other existing public recreation areas. g. Preferred sites minimize the removal of valuable and productive agricultural, forestry, or mineral land from their uses. h. Preferred sites minimize the removal of valuable and productive water from other necessary uses and minimize conflicts among water users.

TABLE 2-4 (continued)

PART & SECTION	PURPOSE
	i. Preferred sites minimize potential accident hazards and possible related adverse effects with respect to geology. j. Preferred sites permit significant conservation of energy or utilization of by-products. k. Preferred sites minimize the distance to large load centers. l. Preferred sites maximize the use of already existing operating sites if expansion can be demonstrated to have equal or less adverse impact than feasible alternative sites. m. Preferred sites utilize existing transportation systems unless feasible alternative systems, including new or upgraded existing substandard systems, have less adverse impact. n. Preferred sites allow for future expansion. o. Preferred sites minimize adverse impact of transmission lines. p. Preferred sites minimize the costs of constructing and operating the facility. 2. Exclusion Criteria. a. No large electric power generating plant shall be sited in violation of any federal or state statute or law, rule, or regulation. No site shall be selected in which a large electric power generating plant is not licensable by all appropriate state and federal government agencies. b. The following land areas shall not be certified as a site for a large electric power generating plant except for use for water intake structures or water pipelines: National Parks; National Historic Sites and Landmarks; National Historic Districts; National Wildlife Refuges; National Monuments; National Wild, Scenic and Recreational Riverways; State Wild, Scenic and Recreational Rivers and their land use districts; State Scientific and Natural Areas; and State and National Wilderness Areas. If the Board includes any of these lands within a site for use for water intake structures or water pipelines, it may impose appropriate conditions in the certificate of site compatibility which protect these lands for the purpose for which they were designated. The Board shall also consider the adverse effects of proposed sites on these areas which are located wholly outside of the boundaries of these areas. c. No area shall be selected which does not have reasonable access to a proven water supply sufficient for plant operation. No use of ground water shall be permitted where mining of ground water resources will result. "Mining" as used herein shall mean the removal of ground water that results in material adverse effects on ground water in and adjacent to the area, as determined in each case. 3. Large Electric Power Generating Plant Avoidance Areas. a. In addition to exclusion areas, the following land use areas shall not be approved for large electric power generating plant sites when feasible and prudent alternatives with lesser adverse human and environmental effects exist. Economic considerations alone shall not justify approval of avoidance areas. Any approval of such areas shall include all possible planning to minimize harm to these areas. These

TABLE 2-4 (continued)

PART & SECTION	PURPOSE
	avoidance areas are : state registered historic sites; State Historic Districts; State Wildlife Management Areas (except in cases where the plant cooling water is to be used for wildlife management purposes); county parks; metropolitan parks; designated state and federal recreational trails; designated trout streams; and the rivers identified in Minn. Stat. §85.32, Subd. 1 (1971). b. Avoidance areas also apply to new transportation access routes and storage facilities associated with the plant in addition to the plant itself. c. The use of ground water for high consumption purposes, such as cooling, shall be avoided if feasible and prudent surface water alternatives less harmful to the environment exist. Ground water use to supplement available surface water shall be permitted if the cumulative impact minimizes environmental harm.
§ 77	Provides for emergency certification of routes and sites.
§ 78	Provides for the exemption of certain routes.

a description of the capacity of the power system for meeting projected demand; and a description of the relationship between utilities.[27]

The second activity under the act is that of developing an inventory of large electric power generating plant study areas.[28] According to the 1979 Inventory report, the inventory will be useful to all parties:[29]

> The completed Inventory will be useful to the public, the utilities, and the Board. The utilities will be able to use the Inventory for guidance in proposing plant sites. In fact, if a utility proposed plant site is not within a study area, the utility "shall specify the reasons for the proposal and shall make an evaluation of the proposed site based upon the planning policies, criteria and standards specified in the Inventory." (Section 116C.56 of the "Power Plant Siting Act"). Perhaps the most important use of the Inventory will be to help the Board determine if there are any sites that should be considered for a proposed plant in addition to those proposed by the utility. The Inventory will also be available to individuals, groups, and the Board's citizen advisory committees to help in developing alternative plant sites to be proposed to the Board.

The siting strategies to be investigated by the 1979 Inventory include type and size considerations with power plant complexes ranging from 50-2400 MW capacity. Other factors to be considered in inventory study areas include (1) economics; (2) exclusion areas and avoidance areas; (3) water supply and water quality; (4) air quality; (5) agricultural lands; (6) coal availability; and (7) associated transmission needs (see Appendix VI for a summary of the 1979 Inventory report).[30]

In evaluating the legal requirement to do an inventory of potential sites for large electric power plants and the due process requirements associated with the development of that inventory, a district court for Minnesota concluded in Floodwood-Fine Lakes Citizen Group v. MEQC, 1978:[31]

> 6. In the absence of that inventory and the criteria and standards, the MEQC was without authority to act with regard to the siting of large electric power generating plants in the State of Minnesota and was specifically without authority to offer, propose, consider, or designate the Floodwood-Fine Lakes site. Acquiescence by MP&L in the MEQC's proposal of the Floodwood-Fine Lakes site provides no legal

justification or authority which would permit the MEQC to act beyond its statutory authority or without performing the mandatory duties imposed upon it by the Legislature to the detriment of other interested involved parties.

7. The designation of the Floodwood-Fine Lakes site by the MEQC as the site for the plant proposed in the MP&L-P-2 application is contrary to law, null and void, and of no force and effect. The MEQC lacks the statutory authority to designate any site until such time that it has complied with the Siting Act, M.S. §116C.51, et. seq.

On appeal, the Minnesota Supreme Court overruled the district court's decision. In essence, the court ruled that the inventory process is procedural, rather than a substantive provision of law:[32]

> It can hardly be denied that as originally drafted the act made it the duty of the EQC to prepare an inventory of potential power plant sites, and required utilities to limit their applications to areas contained in the inventory. However, for us to hold that the preparation of such an inventory was a jurisdictional prerequisite would totally frustrate present legislative policy. In the light of the intervening amendments, which repealed the necessity for selecting a site from the inventory, a procedure now rejected by the legislature will not be invoked to render this litigation futile and invalid. The amended statute adopted on June 2, 1977, reads in part as follows:
>
> > Pursuant to sections 116C.57 to 116C.60, the board shall study and evaluate any site proposed by a utility and any other site the board deems necessary which was proposed in a manner consistent with rules adopted by the board concerning the form, content, and timeliness of proposals for alternate sites.
>
> Minn. Stat. §116C.57, subd. 1 (1978).
>
> We regard the inventory requirement as a procedural rather than a substantive provision of the law to the extent that if the selection of Fine Lakes meets all of the other requirements of the environmental statutes, and would have been included in an inventory had one been prepared, the parties and the public should not now be subjected to the inevitable expense, delay, and inconvenience of requiring EQC to go through the now obsolete motions of preparing an inventory. Accordingly, we hold that the designation of EQC of the Fine Lakes site is not null and void because of its failure to select the site from an inventory specified in Minn. Stat. §116C.55 (1976) prior to its amendment. (footnotes omitted.)

A third activity of the PPSA is that of designation of sites and routes for new facilities. The PPSA (M.S. §116C.57-62), in conjunction with the regulations (MEQB 71-82) promulgated by the MEQB for the siting and routing of large electric power plants and HVTLs (see Table 2-4), established the framework for the siting process.

The purpose of this process, as previously noted, is to determine whether a facility desired by a utility is environmentally compatible at a specific site. The site selection process is initiated by an application from the utility for designation of a specific site or route for a specific size and type of facility. The MEQB is required to issue a Site Environment Report on the proposed facility and issue a certificate of site compatibility within one year after receipt of the application. Th MEQB may appoint a site or route evaluation committee to guide it in its decisions. The MEQB may grant an "emergency certification" and bypass these procedures when "time schedules. . . would jeopardize the utility. . . system or . . . the ability to meet the electrical needs of its customers in an orderly and timely manner." In designating sites and routes the board is guided by the following considerations:[33]

1. Evaluation of research and investigations relating to the effects on land, water and air resources of large electric power generating plants and high voltage transmission line routes and the effects of water and air discharges and electric fields resulting from such facilities on public health and welfare, vegetation, animals, materials and aesthetic values, including base line studies, predictive modeling, and monitoring of the water and air mass at proposed and operating sites and routes, evaluation of new or improved methods for minimizing adverse impacts of water and air discharges and other matters pertaining to the effects of power plants on the water and air environment;

2. Environmental evaluation of sites and routes proposed for future development and expansion and their relationship to the land, water, air and human resources of the state;

3. Evaluation of the effects of new electric power generation and transmission technologies and systems related to power plants designed to minimize adverse environmental effects;

4. Evaluation of the potential for beneficial uses of waste energy from proposed large electric power generating plants;

5. Analysis of the direct and indirect economic impact of proposed sites and routes including, but not limited to, productive agricultural land lost or impaired;

6. Evaluation of adverse direct and indirect environmental effects which cannot be avoided should the proposed site and route be accepted;

7. Evaluation of alternatives to the applicant's proposed site or route proposed pursuant to subdivisions 1 and 2;

8. Evaluation of potential routes which would use or parallel existing railroad and highway rights-of-way;

9. Evaluation of governmental survey lines and other natural division lines of agricultural land so as to minimize interference with agricultural operations;

10. Evaluation of the future needs for additional high voltage transmission lines in the same general area as any proposed route, and the advisability of ordering the construction of structures capable of expansion in transmission capacity through multiple circuiting or design modifications;

11. Evaluation of irreversible and irretrievable commitments of resources should the proposed site or route be approved; and

12. Where appropriate, consideration of problems raised by other state and federal agencies and local entities.

13. If the board's rules are substantially similar to existing rules and regulations of a federal agency to which the utility in the state is subject, the federal rules and regulations shall be applied by the board.

14. No site or route shall be designated which violates state agency rules.

In addition, in evaluating sites and routes, the MEQB considers the three sets of criteria and standards.[34,35] (See Table 2-4, Part II.)

The site designation procedure has come under extensive scrutiny by the courts. In People for Environmental Enlightenment and Responsibility (PEER) v. Minnesota Environmental Quality Council (MEQB), 1978, (hereinafter referred to as PEER v. MEQB, 1978) and NPL v. MEQB, 1977, the courts have interpreted site designation process of the PPSA in five distinct ways. First, they have defined "human impact" to mean noncompensable impairment of human resources.[36] Second, the environmental and human impacts must be described in sufficient enough detail so that a comparison of specific characteristics of these impacts can be made.[37] Third, the requirement that the MEQB choose a route by the "prudent and feasible alternative standard" means that the MEQB must choose a pre-existing route as a matter of law, "unless there are extremely strong reasons for not doing so." This has become known as the principle of nonproliferation.[38] Fourth, the balancing process required by the PPSA should "only be utilized after more than one form of noncompensable intrusion has been identified."[39] Finally, that a utility may install a line does not mean that the utility may create conditions that cause damage that was not anticipated

by the utility or the MEQB; therefore, "both the MEQC and the utilities have an obligation to monitor the line to insure that if effects are produced that were not anticipated. . . modifications will be introduced to protect the public interest."[40]

The site designation procedure includes a "savings clause" which exempts sites prior to the date of enactment of PPSA and HVTLs prior to July 1, 1974.[41] In NPL v. MEQB, 1977, the court interpreted this provision to protect "utilities whose projects were already begun from being overly burdened," and, ruled that MEQB could accept jurisdiction whenever a utility involved submitted to such jurisdiction.[42]

B. Environmental Policy Act

The Minnesota Environmental Policy Act was enacted in 1973, four years after NEPA (the National Environmental Policy Act of 1969). Both laws sought to establish a new policy that would make environmental and public health values factors in governmental decision making. These values have been ignored by decision makers for many reasons. Environmental values are what economists call exogenous variables (i.e., external factors which cannot easily be assigned dollar amounts). Because of the difficulty, if not impossibility, of assigning dollar amounts to values, environmental and public health concerns were often ignored or considered unimportant in many decisions made by government (i.e., low dollar amounts were assigned to these values). NEPA, both in policy and action, set a new tone for the consideration of these values. The Minnesota Supreme Court has recognized that the purpose of all environmental legislation, at both the state and federal level, is to force agencies to make their own impartial evaluation of environmental considerations in decision making.[43] The purpose of NEPA is spelled out clearly in section 2:[44]

> SECTION 2. The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.

The purpose of the Minnesota Environmental Policy Act (MEPA) is similar:[45]

The purposes of Laws 1973, Chapter 412 are: (a) to declare a state policy that will encourage productive and enjoyable harmony between man and his environment; (b) to promote efforts that will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; and (c) to enrich the understanding of the ecological systems and natural resources important to the state and to the nation.

Title I of NEPA established a national environmental policy:[46]

SEC. 101. (a) The Congress, recognizing the profound impact of man's activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances and recognizing further the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man, declares that it is the continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.

(b) In order to carry out the policy set forth in this Act, it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may—

(1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;

(2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;

(3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;

(4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;

(5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and

(6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

(c) The Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.

SEC. 102. The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this Act, and (2) all agencies of the Federal Government shall—

(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment;

(B) identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by title II of this Act, which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations;

(C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on—

(i) the environmental impact of the proposed action,

(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,

(iii) alternatives to the proposed action,

(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action, should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of title 5, United States Code, and shall accompany the proposal through the existing agency review processes;

(D) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources;

(E) recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment;

(F) make available to States, counties, municipalities, institutions, and individuals, advice and information useful in restoring, maintaining, and enhancing the quality of the environment;

(G) initiate and utilize ecological information in the planning and development of resource-oriented projects; and

(H) assist the Council on Environmental Quality established by title II of this Act.

SEC. 103. All agencies of the Federal Government shall review their present statutory authority, administrative regulations, and current policies and procedures for the purpose of determining whether there are any deficiencies or inconsistencies therein which prohibit full compliance with the purposes and provisions of this Act and shall propose to the President not later than July 1, 1971, such measures as may be necessary to bring their authority and policies into conformity with the intent, purposes, and procedures set forth in this Act.

SEC. 104. Nothing in section 102 or 103 shall in any way affect the specific statutory obligations of any Federal agency (1) to comply with criteria or standards of environmental quality, (2) to coordinate or consult with any other Federal or State agency, or (3) to act, or refrain from acting contingent upon the recommendations or certification of any other Federal or State agency.

SEC. 105. The policies and goals set forth in this Act are supplementary to those set forth in existing authorizations of Federal agencies.

The Minnesota environmental policy is also similar to NEPA.[47]

In addition to a state environmental policy, MEPA requires the preparation of an environmental impact statement or EIS. The purpose of an EIS is spelled out in the MEQB regulations.[48] (See Table 2-5.)

The MEQB is the principal agency responsible for the administration of MEPA and has promulgated regulations for determining how and whether an EIS is to be prepared. An EIS is generally required whenever it is determined that an action is major and has the potential for significant environmental effects.[49] Large electric power plants with a capacity of 200 MW or more at a single site are required to have an EIS.[50] Upon determining that an EIS is required, the MEQB selects the agency responsible for preparing the EIS. The Minnesota Pollution Control Agency (PCA) is designated the responsible agency for large power plants under MEQB rules. A summary of the EIS process is shown in Figure 2-4.

The EIS process is the third step in the sequential process for locating new energy facilities. The EIS is required to consider the following factors:[51]

1. Where there is potential for significant environmental effects resulting from any major governmental action or from any major private action of more than local significance, such action shall be preceded by a detailed statement prepared by the responsible agency or, where no governmental permit is required, by the responsible person, on:

   (a) The environmental impact of the proposed action, including any pollution, impairment, or destruction of the air, water, land, or other natural resources located within the state;

   (b) Any direct or indirect adverse environmental, economic, and employment effects that cannot be avoided should the proposal be implemented;

   (c) Alternatives to the proposed action;

   (d) The relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity, including the environmental impact of predictable increased future development of an area because of the existence of a proposal, if approved;

TABLE 2-5

SUMMARY OF THE STATE ENVIRONMENTAL POLICY ACT

PART & SECTION	PURPOSE
Part I	State Environmental Policy Act
M.S. § 116D.01	Purpose. The purposes of Laws 1973, Chapter 412 are: (a) to declare a state policy that will encourage productive and enjoyable harmony between man and his environment; (b) to promote efforts that will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; and (c) to enrich the understanding of the ecological systems and natural resources important to the state and to the nation.
§ 106D.02	Declaration of State Environmental Policy. Subd. 1. The legislature, recognizing the profound impact of man's activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high density urbanization, industrial expansion, resources exploitation, and new and expanding technological advances and recognizing further the critical importance of restoring and maintaining environmental quality to the overall welfare and development of man, declares that it is the continuing policy of the state government, in cooperation with federal and local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of the state's people. Subd. 2. In order to carry out the policy set forth in Laws 1973, Chapter 412, it is the continuing responsibility of the state government to use all practicable means, consistent with other essential considerations of state policy, to improve and coordinate state plans, functions, programs and resources to the end that the state may: (a) Fulfill the responsibilities of each generation as trustees of the environment for succeeding generations; (b) Assure for all people of the state safe, healthful, productive, and aesthetically and culturally pleasing surroundings; (c) Discourage ecologically unsound aspects of population, economic and technological growth, and develop and implement a policy such that growth occurs only in an environmentally acceptable manner; (d) Preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever practicable, an environment that supports diversity, and variety of individual choice; (e) Encourage, through education, a better understanding of natural resources management principles that will develop attitudes and styles of living that minimize environmental degradation; (f) Develop and implement land use and environmental policies, plans, and standards for the state as a whole and for major regions thereof through a coordinated program of planning and land use control; (g) Define, designate, and protect environmentally sensitive areas; (h) Establish and maintain statewide environmental information systems sufficient to gauge environmental conditions;

TABLE 2-5 (continued)

PART & SECTION	PURPOSE
	(i) Practice thrift in the use of energy and maximize the use of energy efficient systems for the utilization of energy, and minimize the environmental impact from energy production and use; (j) Preserve important existing natural habitats of rare and endangered species of plants, wildlife, and fish, and provide for the wise use of our remaining areas of natural habitation, including necessary protective measures where appropriate; (k) Reduce wasteful practices which generate solid wastes; (l) Minimize wasteful and unnecessary depletion of nonrenewable resources; (m) Conserve natural resources and minimize environmental impact by encouraging extension of product lifetime, by reducing the number of unnecessary and wasteful materials practices, and by recycling materials to conserve both materials and energy; (n) Improve management of renewable resources in a manner compatible with environmental protection; (o) Provide for reclamation of mined lands and assure that any mining is accomplished in a manner compatible with environmental protection; (p) Reduce the deleterious impact on air and water quality from all sources, including the deleterious environmental impact due to operation of vehicles with internal combustion engines in urbanized areas; (q) Minimize noise, particularly in urban areas; (r) Prohibit, where appropriate, flood plain development in urban and rural areas; and (s) Encourage advanced waste treatment in abating water pollution.
§ 116D.03	The policies, regulations, and public laws of the state shall be interpreted and administered in accordance with the policies of this act.
§ 116D.04	Environmental Impact Statements. Where there is potential for significant environmental effects resulting from any major governmental action or from any major private action of more than local significance, such action shall be preceded by a detailed statement prepared by the responsible agency, or where no governmental permit is required, by the responsible person, on: (a) The environmental impact of the proposed action, including any pollution, impairment, or destruction of the air, water, land, or other natural resources located within the state; (b) Any direct or indirect adverse environmental, economic, and employment effects that cannot be avoided should the proposal be implemented; (c) Alternatives to the proposed action; (d) The relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity, including the environmental impact of predictable increased future development of an area because of the existence of a proposal, if approved; (e) Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented; (f) The impact on state government of any federal controls associated with proposed actions; and (g) The multistate responsibilities associated with proposed actions. Subd. 2. Requires regulations for EISs. Subd. 3. Requires an EIS when 500 persons petition for such. Subd. 4. Provides for review of EISs by government agencies, the MEQB, and the public.

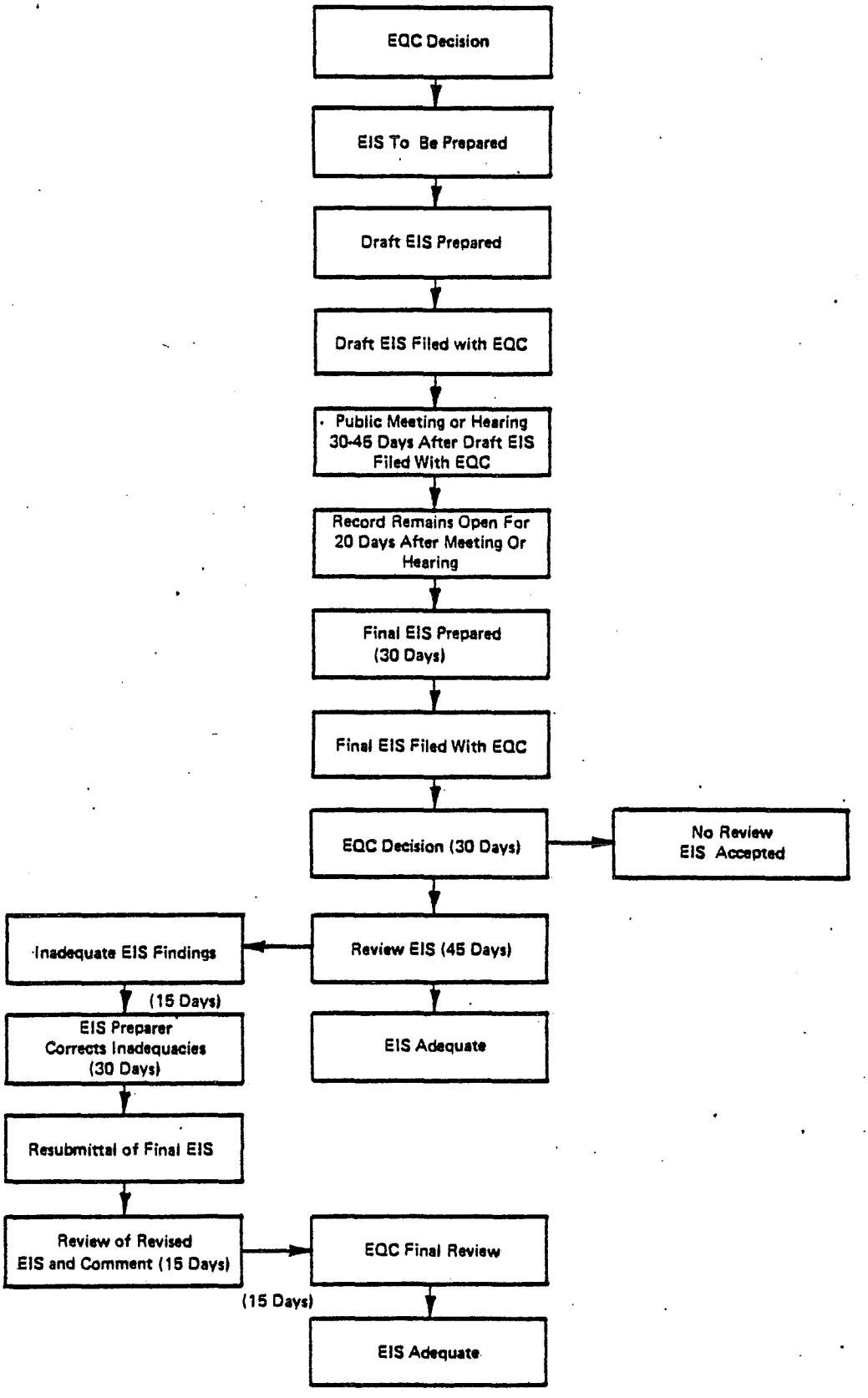
TABLE 2-5 (continued)

PART & SECTION	PURPOSE
	Subd. 5. Defines permits for natural resources management and development. Subd. 6. No state action significantly affecting the quality of the environment shall be allowed, nor shall any permit for natural resources management and development be granted, where such action or permit has caused or is likely to cause pollution, impairment, or destruction of the air, water, land, or other natural resources located within the state, so long as there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety, and welfare and the state's paramount concern for the protection of its air, water, land, and other natural resources from pollution, impairment, or destruction. Economic considerations alone shall not justify such conduct.
§ 116D.045	Specifies procedures for costs of EISs.
§ 116D.05 - .07	Requires reporting requirement and effect on existing agency obligations.
Part II	Environmental Review Program 6MCAR § 3.021 - .047
6 MCAR § 3.021	Purpose of EIS. The purpose of an Environmental Impact Statement is to provide information for agencies and private persons to evaluate proposed actions which have the potential for significant environmental effects, to consider alternatives to the proposed actions, and to institute methods for reducing adverse environmental effects. An Environmental Impact Statement is not a document to justify an action, nor shall indications of adverse environmental effects necessarily require that an action be disapproved. It is to be utilized as a guide in issuing, amending, and denying permits and carrying out the other responsibilities of public agencies to avoid or minimize adverse environmental effects and to restore or enhance environmental quality consistent with the Act.
§ 3.023	Specifies the general responsibilities of the MEQB, public agencies, and private persons.
§ 3.024	Specifies actions requiring environmental assessment worksheets.
§ 3.025	Specifies actions requiring an EIS, including proposed large electric power generating plants and HVTLs.
§ 3.026	Specifies actions not requiring environmental documents.
§ 3.027 - .032	Procedural requirements.
§ 3.033 - .040	Early notice rules.
§ 3.041 - .047	Assessing the costs of preparing EISs.

FIGURE 2-4

ENVIRONMENTAL IMPACT STATEMENT

PROCESS



Source: Minnesota Pollution Control Agency.

(e) Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented;

(f) The impact on state government of any federal controls associated with proposed actions; and

(g) The multistate responsibilities associated with proposed actions.

The MEPA law, like the Power Plant Siting Act, has come under extensive judicial review, MEPA required that state agencies interpret their laws in accordance with the environmental policy established by the Act (M.S. §116D.03). The courts in Reserve Mining Co. v. Herbst, 1977, interpreted MEPA and noted that it is the legislative policy of Minnesota that permits shall not be issued for industrial development if there is substantial evidence that the proposed activity "is likely to materially adversely affect the environment."[52] Further, the court pointed out that state agencies and courts are required to consider both economic and environmental impacts in rendering decisions dealing with environmental matters.[53] However, in Application of City of White Bear Lake v. Department of Natural Resources, 1976, the court notes that economic considerations alone will not justify a construction project where there is substantial evidence that pollution impairment or destruction of natural resources will occur as a result of granting a permit and where there is a feasible and prudent alternative consistent with the responsible requirements of public health, safety, and welfare.[54] However, in Reserve, supra, the court notes that it is only where the likelihood danger to the public is remote and speculative that economic impacts which are devastating and certain may be weighed in the balance to arrive at an environmentally sound decision.[55]

The EIS process (M.S. §116D.04) has also come under review by the courts. The court in Minnesota Public Interest Research Group (MPIRG) v. Minnesota Environmental Quality Council (MEQC), 1975, stated that the purpose of the EIS section is to provide a means by which the public may obtain a forum regarding specific matters which may require environmental review.[56] Further, the U.S. district court ruled in Cedar-Riverside Environmental Defense Fund v. Hills, D.C. 1976, noted, that a

local agency doing an EIS on a private development project must participate in the state EIS process, must consider all environmental impacts set forth in MEPA, evaluate alternatives in the detail required by MEPA, and consider and evaluate those alternatives within the power of the MEQB in order for an EIS to be valid.[57]

With regard to the content of an EIS, the court in PEER v. MEQB, 1979, ruled that an EIS prepared under MEPA must provide detailed information on all HVTL routes to be evaluated in order for it to play its proper role in the decision making process.[58] With regard to power lines generally, the court in NPL v. MEQB, 1977, notes that it is better to require an EIS at the corridor selection stage of proceedings (see Table 2-4), but failure to do so is not an "abuse of discretion."[59] In PEER v. MEQB, 1977, the court clarified this point by saying that if an EIS was prepared and available to provide guidance prior to the selection of a specific route, then the requirements of MEPA would be satisfied.[60] In addition, in NPL v. MEQB, 1977, the court defined the standard by which an EIS is judged adequate as "the rule of reason."[61]

In MPIRG v. MEQB, 1975, the court ruled that an EIS does not have to be prepared where the state continually monitors an activity for the one purpose of accumulating data for an eventual EIS should the project prove feasible.[62] The court has also ruled that where there is evidence of public demand such as in the petitioning process of M.S. §116D.04, Subd. 3, for environmental review of a MEQB decision not to require an EIS, a hearing must be held even though such a right is not specifically stated in MEPA. Further, where a hearing is required under MEPA, the matter constitutes a "contested case" within the meaning of the Administrative Procedures Act (APA), Minnesota Statutes, Chapter 15 (see Section 2.6 of this chapter), and aggrieved parties are entitled to judicial review.[63]

2.4 The Permitting Agencies

The fourth and final step in securing the necessary authorizations for siting new energy facilities is the securing of permits from federal, state, and local agencies. (Table 2-6 summarizes this four-step process.) The principal purpose

TABLE 2-6

THE FOUR STEP SEQUENTIAL SITING PROCESS

	PLANNING PHASE	STEP ONE: NEED	STEP TWO: SITING	STEP THREE: ER & EIS	STEP FOUR: PERMITS
AGENCY	ELECTRIC UTILITY	ENERGY AGENCY	ENVIRONMENTAL QUALITY BOARD	POLLUTION CONTROL AGENCY AND ENVIRONMENTAL QUALITY BOARD	MANY AGENCIES -- PRIMARILY POLLUTION CONTROL AGENCY AND DEPARTMENT OF NATURAL RESOURCES
PURPOSE/ DECISIONS	PLANS SIZE, TYPE, TIMING, AND LOCATION OF PLANTS AND LINES	MAKES SIZE, TYPE, AND TIMING DECISION; CONSERVATION IS ENERGY POLICY	MAKES LOCATION DECISION; CONDUCTS INVENTORY OF SITES; PLANTS AND LINES ARE SEPARATE	ER FOR NEED: MEA; ER FOR SITE AND/OR LINES: MEQB; DRAFT EIS FOR PLANTS:PCA; DRAFT EIS FOR LINES; MEQB; FINAL EIS FOR PERMITS: PCA	ISSUES PERMITS FOR CONSTRUCTION AND USE OF PLANTS AND LINES
TIMING OF DECISION	NO TIME LIMIT -- USUALLY 5-7 YEARS	6 MONTHS	SITING: 1 YEAR + 6 MONTHS; ROUTING: 1 YEAR + 90 DAYS	ER: NONE EIS: 120 DAYS	SINGLE AGENCY: NONE EPCR: 185-205 DAYS
PUBLIC PARTICIPATION	NO	YES - SOME	YES - SOME	YES - SOME	YES - SOME
HEARING	NO	YES	YES	SOMETIMES	SOMETIMES
JUDICAL REVIEW	NO	YES	YES	YES	YES

of the EIS process is to secure sufficient information for government agencies to determine whether a new facility should be constructed at a particular location. During the permitting step, the government agencies review the environmental information on the major effects and design of the proposed facility to determine whether it meets the applicable health, environmental, and safety standards. During the process, public hearings are held to solicit public comments and information. If the permitting agency determines that the proposed facility meets the requirements of its laws and regulations, then the permit is issued. If one or more of the agencies determine that its regulations will be violated, permits are denied and the utility must either redesign the facility to obtain compliance or abandon its proposal. In the case involving Sherco 3 & 4 (NSP's proposed addition of two 800-MW plants near Becker, Minnesota) the hearing officer for the MEQB determined that 26 permits from nine government bodies must be obtained. Table 2-7 summarizes the permits for Sherco.

In additon to these permits, the Minnesota Pollution Control Agency (MPCA) must review the plant for compliance with New Source Performance Standards which specify maximum air pollution emissions, and Significant Deterioration Standards (SDS), which specify the maximum allowable degradation of ambient air quality attributable to the new facility, under the Clean Air Act, as amended. However, Section 3 of the Energy Supply and Environmental Coordination Act of 1974 (ESEC) (P.L. 93-319, as amended), amended Title I of the Clean Air Act, Section 119 to allow the Administrator of the Environmental Protection Agency to suspend temporarily any stationary source, fuel, or emission limitation, but permitted the states to continue to enforce any primary standard or regional limitation. More importantly, Section 4 of ESEC amended Section 110(a) of the Clean Air Act to allow revision of each state's air quality implementation plans if weakening such plans would not interfere with attainment of national ambient air quality standards.

A review of all the laws and regulations relating to the issuance of these permits is beyond the scope of this paper. Suffice to say that these laws and

TABLE 2-7

SHERCO PERMITS

Agency		Description	Applicable Regulation
Minnesota Pollution Control Agency	1.	Liquid Waste Disposal Facilities Permit (plant blowdown and basin drainage including holdup pond and coal storage basins)	WPC 15, 22, 36
	2.	Certificate of Compliance (assurance of meeting water quality standards)	Clean Water Act, §404 Reuse Permit
	3.	Emmission Facility and Disposal Permits (air containment control facility installation and operating permit)	APC 1, 3, 4
	4.	Burning Permit (construction and operating waste incineration)	APC 7, 8
	5.	Solid Waste Disposal Permit (ash storage)	SW 6
	6.	Solid Waste Disposal Permit (construction wastes)	SW 6
	7.	Liquid Storage Permit (oil and chemical storage)	WPC 4
	8.	NPDES Discharge Permit (may include No. 1)	40 CFR Part 425, WPC 3(40 CFR Part 423, Efflu t 40 CFR Part 402, Cooling Water
Minnesota Department of Natural Resources	9.	Surface Water Appropriation (river water for plant operation)	
	10.	Ground Water Appropriation (dewatering wells)	
	11.	Ground Water Appropriation (batch plant well)	
	12.	Ground Water Appropriation (domestic, service water, and plant makeup wells)	
Minnesota Department of Health	13.	Approval of Sewage Disposal Plans (temporary sanitary sewage disposal) (MPCA if greater than 15,000 GPD)	(MPCA WPC 40)
	14.	Approval of Sewage Disposal Plans (plant sanitary sewage disposal system) (MPCA if greater than 14,000 GPD)	(MPCA WPC 40)
	15.	Approval of Plumbing Plans (temporary building plumbing)	

TABLE 2-7
(continued)

SHERCO PERMITS

Agency		Description	Applicable Regulation
Minnesota Department of Health	16.	Approval of Plumbing Plans (permanent plant plumbing)	
	17.	Approval of Potable Water Plans (wells and water supply plumbing)	
Minnesota Department of Labor and Industry	18.	Certification of National Board Acceptance (auxiliary boiler)	
	19.	Certification of National Board Acceptance (power boiler)	
	20.	Approval of Plans (access to chimney lighting balconies)	
State Fire Marshall	21.	Approval of Plans (flammable liquid storage)	
Environmental Protection Agency	22.	Plant Discharges (NPDES) (same as No. 8 above)	(Taken over by MPCA as of 6/30/74)
	23.	Operation Notification (boiler operation)	40 CFR 60.8
Federal Aviation Agency	24.	Notice of Proposed Construction or Alteration (chimney and powerhouse elevation authorization lighting and marking requirements)	14 CFR Part 77
Sherburne County	25.	Approval of Plans (flammable liquid storage)	
Becker, Mn.	26.	Burning Permit (site preparation clearing)	

Source: Minnesota Pollution Control Agency

regulations are designed to protect the public health and safety as well as the environment vis-a-vis a due process procedure which culminates in the issuance or denial or permits, with or without stipulations. However, a review of the Environmental Coordination Procedures Act (M.S. §116C.22 et. seq.) is in order.

A. Environmental Coordination Procedures Act

The purpose of the Environmental Coordination Procedures Act (ECPA) was spelled out in the statute:[64]

> PURPOSE. It shall be the purpose of sections 116C.22 to 116C.34:
>
> (a) to provide an optional procedure to assist those who, in the course of satisfying the requirements of state government prior to undertaking a project which contemplates the use of the state's air, land, or water resources, must obtain more than one state permit, by establishing a mechanism in state government which will coordinate administration decision making procedures, and related quasi-judicial and judicial review, pertianing to these permits;
>
> (b) to provide to the members of the public a better and easier opportunity to present their views comprehensively on proposed uses of natural resources and related environmental matters prior to the making of decisions on these uses by state or local agencies;
>
> (c) to provide to the members of the public a greater degree of certainty in terms of permit requirements of state and local government;
>
> (d) to provide better coordination and understanding between state and local agencies in the administration of the various programs relating to air, water, and land resources; and
>
> (e) to establish the opportunity for members of the public to obtain information pertaining to requirements of federal and state law which must be satisfied prior to undertaking a project in this state.

The ECPA provides for the creation of an environmental permits coordination unit within the MEQB to administer the act. The act provides that a person proposing a project, which requires more than one permit, may submit an application to the unit requesting the issuance of all state permits necessary for the construction and/or operation of the project. The unit contracts the agencies to secure their participation, holds all appropriate hearings, and requires each agency to make a final decision on the permits. Local certification must be received by the unit prior to the processing of any application. Local certification requires the person proposing the project to certify that he is complying with all local laws

and regulations. Where the ECPA conflicts with federal requirements, the act is not applicable. A summary of the master application procedure is shown in Figure 2-5.

One case worth noting with regard to the issuance of permits is the Supreme Court's decision in NPL v. MEQB, 1977, which ruled that a level of source pollution of ozone that would be caused by the presence of a high voltage power line would be minimal, the likelihood that such contribution would increase ambient air levels above permissible maximum standards was so remote, and the continuing authority of MEQB to prohibit source emissions was so expensive that denial of a permit on these grounds would be unreasonable.[65]

2.5 Public Service Commission

The second major concern of the electrical utilities, besides obtaining necessary authorization for new facilities, is the rate of compensation permitted from the sales of the power generated. There are three agencies which have statutory obligations to get involved in rate cases: the Department of Public Service (DPS), the Public Service Commission (PSC), and the Residential Utility Consumer Unit, Office of Consumer Services (RUCU/OCS), which is part of the Commerce Department. Minnesota Statutes, Chapter 216A created the Department of Public Service and the Public Service Commission and provides for the usual administrative responsibilities. Minnesota Statutes, Chapter 216 sets for the procedures for the Department of Public Service. Minnesota Statutes 45.17, Subd. 2 sets forth the responsibilities of the Residential Utility Consumer Unit:[66]

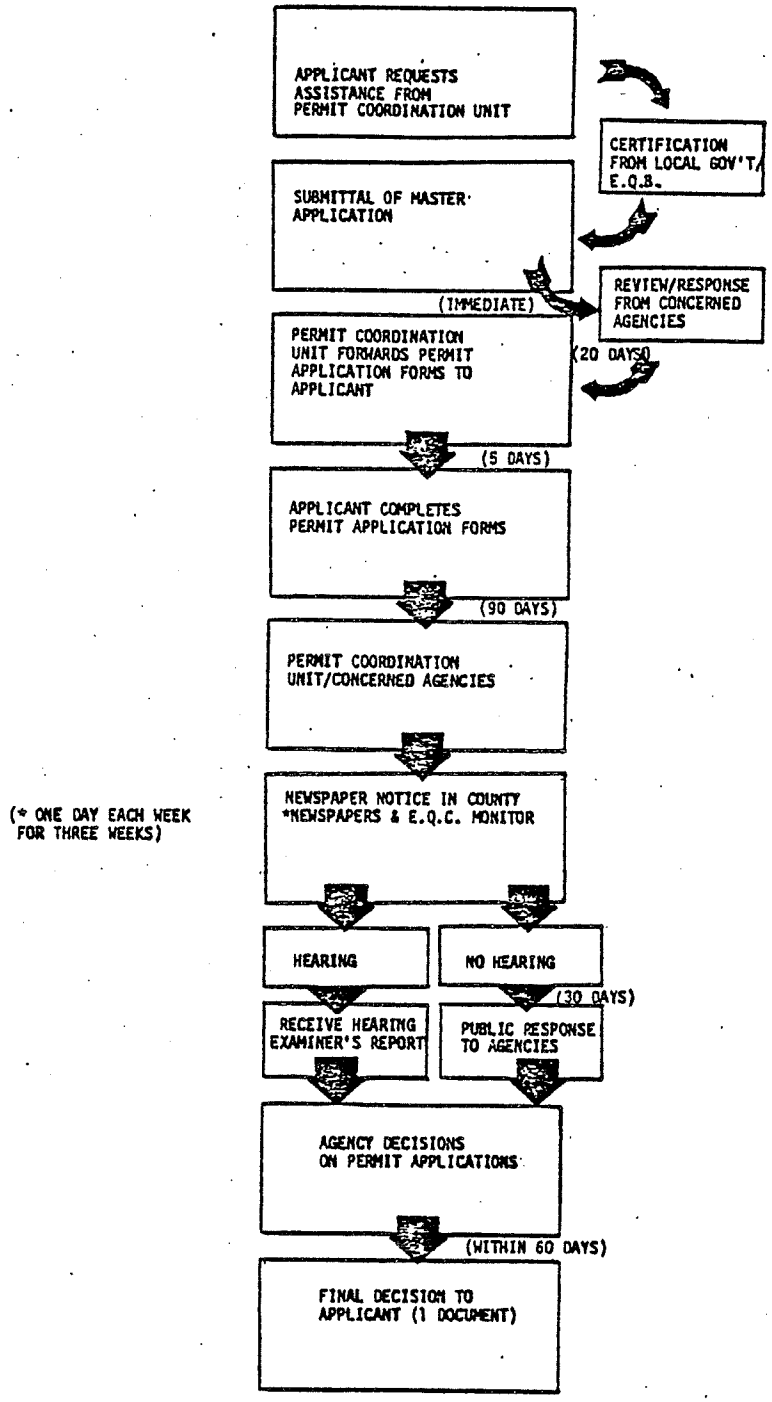
> Subd. 2. The consumer services section shall be responsible for representing and furthering the interests of residential utility consumers through participation in matters before the public service commission involving utility rates and adequacy of utility services to residential utility consumers. The consumer services section shall expend a reasonable portion of its efforts among all three kinds of utility services and shall identify and promote the needs of each class of residential consumers with respect to each of the utility services.

This unit only intervenes in Investor Utility before the PSC. It has no authority to represent residential customers before proceedings involving cooperatives or municipal utilities.

The responsibilities of the DPS and PSC in regulating utilities is set forth under the Minnesota Public Utilities Act (Minnesota Statutes, Chapter 216B). The

FIGURE 2-5

MASTER APPLICATION PROCEDURE



Source: MEQB, Environmental Permit Coordination, 6 MCAR § 3.101 et. seq.

legislative findings are summarized in Section 1;[67]

> It is hereby declared to be in the public interest that public utilities be regulated as hereinafter provided in order to provide the retail consumers of natural gas and electric service in this state with adequate and reliable services at reasonable rates, consistent with the financial and economic requirements of public utilities and their need to construct facilities to provide such services or to otherwise obtain energy supplies, to avoid unnecessary duplication of facilities which increase the cost of service to the consumer and to minimize disputes between public utilities which may result in inconvenience or diminish efficiency in service to the consumers. Because municipal utilities are presently effectively regulated by the residents of the municipalities which own and operate them, and cooperative electric associations are presently effectively regulated and controlled by the membership under the provisions of chapter 308, it is deemed unnecessary to subject such utilities to regulation under this chapter except as specifically provided herein.

A summary of M.S., Chapter 216B is provided in Table 2-8. Table 2-9 summarizes the rate process.

Minnesota began to regulate electrical utilities in 1974 under the Minnesota Public Utilities Act, and became the 48th state in the nation to do so. The principal purpose of this act is to fix rates of compensation for the sales of electric power. The act does not apply at all to municipal utilities; it applies only to those cooperative utilities who choose to become regulated. In addition to fixing rates, the PSC establishes exclusive service areass for utilities. This policy was set forth under M.S. §216B.37:[68]

> It is hereby declared to be in the public interest that, in order to encourage the development of coordinated statewide electric service at retail, to eliminate or avoid unnecessary duplication of electric utility facilities, and to promote economical, efficient, and adequate electric service to the public, the state of Minnesota shall be divided into geographic service areas within which a specified electric utility shall provide electric service to customers on an exclusive basis.

Two cases have helped to interpret the meaning of the Minnesota Public Utilities Act: St. Paul Area Chamber of Commerce v. Minnesota Public Service Commission, 1977, and Minnesota Gas Company v. Public Service Commission, 1975. The major points of these two cases are as follows:[69, 70]

1. The PSC and district court, if the PSC decision is appealed, must consider all facts known and facts offered in evidence on the rate structure;

TABLE 2-8

SUMMARY OF THE MINNESOTA PUBLIC UTILITIES ACT

ECTION	PURPOSE
.S. § 216B.01	Legislative Findings: public utilities are regulated in order to provide retail customers . . . electricity with adequate and reliable service at reasonable rates . . . Municipal and cooperative utilities are exempt from the act.
§ 216B.03	Rates must be reasonable.
§ 216B.04	Each utility must furnish safe, adequate, efficient, and reasonable service.
§ 216B.05	Every public utility must file with the PSC schedules showing all rates, tolls, tariffs, and charges.
§ 216B.06	No public utility shall receive greater or less compensation for any service rendered.
§ 216B.07	No public utility shall grant any unreasonable preference or advantage or unreasonable preference or disadvantage on rates and services.
§ 216B.08	The Public Service Commission (PSC) has the power to regulate utilities.
§ 216B.09	The PSC may fix standards, classifications, regulations, or practices to be followed by all public utilities regarding service; it may require the filing of rates and may appear before the Federal Power Commission on behalf of the Minnesota consumers.
§ 216B.10	The PSC shall establish an accounting system to be kept by public utilities.
§ 216B.11	The PSC establishes depreciation rates and practices.
§ 216B.12	The PSC and the Department of Public Service (DPS) staff have the right of entrance onto utility property and inspection of utility books, etc.
§ 216B.13	Public utilities and municipal utilities shall produce records required of them by the PSC.
§ 216B.14	The PSC may investigate the condition and operation of any utility as it may deem necessary in the performance of its duties and may hold hearings.
§ 216B.15	The PSC may conduct hearings in the performance of its duties and may designate a PSC member as a hearing examiner.
§ 216B.16	Subdivision 1. No rate change is permitted until 90 days after notice is given to the PSC. The utility shall give wirtten notice of the proposed change to each municipality or county in the affected area. Subd. 2. The PSC may suspend the proposed rate change for 90 days after the change would have gone into effect. The PSC shall determine the reasonableness of the rate change and if the PSC finds that questions are unresolved about the rate change, or upon petition of 10% of the affected customers or 100 customers, whichever is less, the PSC shall refer the matter to the Office of Hearing Examiners with instructions for a public hearing pursuant to Minnesota Statutes, Chapter 15. The PSC may suspend the rate change for an additional nine months. If no decision is made after nine months, then the rate change goes into effect as if approved by the PSC.

TABLE 2-7 (continued)

SECTION	PURPOSE
	Subd. 3. The utility may put the proposed rate change into effect, notwithstanding any PSC suspension, if it files a bond with the PSC conditioned upon a refund or other provision satisfactory to the PSC. Subd. 4. The burden of proof to show that the rate change is just and reasonable is upon the utility. Subd. 5. The PSC may modify or alter the rate change if it finds the rate change to be unjust or unreasonable, except that such modification shall not exceed the utility's request. Subd. 6. The PSC shall give due consideration to the public's need for . . . services. The utilities shall be allowed to earn a fair rate of return with considerations given to overall property costs. Subd. 7. The PSC may permit the utility to file rate schedules for automatic adjustments in direct relation to changes in federally regulated wholesale rates for energy. Subd. 8. The PSC may approve or disapprove of a portion of a rate request for public advertisements under certain conditions. Subd. 9. Fifty percent of charitable contributions are operating expenses if they qualify under Minnesota Statutes § 290.91 of the tax laws.
§ 216B.17	The PSC on its own or by complaint may investigate a utility for unjust or unreasonable practices.
§ 216B.19	The PSC may cooperate with other states or federal agencies and may hold joint hearings or joint investigations.
§ 216B.20	The PSC may order separate rate hearings when a complaint is made of more than one rate or change.
§ 216B.23	The PSC may fix unreasonable or unjust rates.
§ 216B.24	Public or municipal utilities shall file plans showing any contemplated construction of a major utility facility.
§ 216B.27	Within 20 days after a PSC decision, any affected party may request a rehearing and must do so to obtain judicial review.
§ 216B.36	Utilities and cooperative associations may be requested to get a franchise from a municipality to furnish services.
§ 216B.37-.44	Electrical utilities are assigned exclusive service areas. Municipal utilities may elect to service an ajoining area after annexation or consolidation. Customers outside a municipal service area requiring a load of 2,000 kilovolts shall not be obligated to take electric service from a utility having the assigned service area if the PSC so decrees after considering many factors. A customer whose homestead overlaps two or more service areas has the option of obtaining all his or her electricity from one utility.
§ 216B.45	Municipalities may purchase the property of a public utility or cooperative association within its boundaries.
§ 216B.47	Municipalities may not acquire utility or cooperative property by eminent domain.
§ 216B.48	No contract between a utility and an affected interest are valid if such contract exceeds $10,000 or 5% capital equity of the utility.
§ 216B.50	The PSC must approve the acquiring of property or mergers.
§ 216B.51	The PSC must approve the purchase of stock of another utility doing business in Minnesota.
§ 216B.52	Any party aggrieved by a PSC decision may appeal to the courts.
§ 216B.53	Appealing a PSC order or decision does not invoke an automatic suspension of such decision or order.

TABLE 2-9

THE RATE STRUCTURE PROCESS

	ELECTRIC UTILITIES	DEPARTMENT OF PUBLIC SERVICE	CONSUMER SERVICES SECTION	PUBLIC SERVICE COMMISSION
RESPONSIBILITIES/ DECISIONS	PROPOSES RATE INCREASES; REQUESTS SERVICE AREA DESIGNATION	ANALYZES RATE APPLICATION; PRESENTS TESTIMONY BEFORE PSC	ADVOCATES INTEREST OF RESIDENTIAL CUSTOMERS ON UTILITY RATE APPLICATIONS	MAKES DECISION TO GRANT, MODIFY, OR DENY RATE APPLICATE; DESIGNATES SERVICE AREAS
TIME ALLOWED FOR DECISION	NO TIME LIMIT	NOT APPLICABLE	NOT APPLICABLE	ONE YEAR
PUBLIC PARTICIPATION ALLOWED	NO	NOT APPLICABLE	NOT APPLICABLE	YES
HEARING	NO	NOT APPLICABLE	NOT APPLICABLE	YES
JUDICIAL REVIEW	NO	NO	NO	YES

2. Courts may not restrict the scope of matters which PSC may consider in allocating costs among classes of consumers, and PSC may consider factors from its own expertise, facts generally in the public knowledge, and evidence presented in formal processes, unless PSC is shown to have relied upon factors to the extent that clear injustice has resulted or that PSC has clearly exceeded its legislative authority;

3. PSC decisions will be upheld whenever PSC acts in its legislative capacity, as in rate increase allocations, balancing both cost and non-cost factors and making choices among alternatives, unless these decisions are shown by clear and convincing evidence to be in excess of statutory authority or resulting in unjust, unreasonable, or discriminatory rates;

4. The function of the district court on review of rates is not to substitute its judgment for the PSC, but only to ensure that the rate structure adopted is not unjust, unreasonable, or discriminatory, and then the burden is put upon the challenger to show by clear and convincing evidence that PSC allocation controvenes statutory requirements;

5. When a city enters into a rate contract with a utility and the city has only the power of contract with the public utility for rates and state has not delegated its police power to regulate rates to city, then the city acts in a proprietary manner rather than in a governmental capacity when it enters into a rate contract. Further, the city's right to contract does not suspend the state's power to set reasonable rates, and neither the contract's clause nor the 14th amendment due process clause prohibits the state from setting rates which supersede those specified in a franchise contract;

6. Where statutes at the time of a gas franchise agreement between home rule city and a private utility declare the inherent power of the state to regulate utility rates and there is no authority in the city charter which allows it to regulate utility rates, the rate-making provisions of the franchise are an exercise of city's proprietary power; and when the state exercises its reserve power under the Public Utilities Act to regulate rates and service areas of private utilities in the state, any inconsistent provisions of a franchise agreement must yield; and

7. Statutes declaratory of state's inherent power to regulate utility rates are fully applicable to the utility business of a foreign corporation in Minnesota.

A. Federal Impact on State Rate Law

In addition to state laws, Congress enacted the National Energy Act of 1978 (P.L.), which included federal rate regulation of the five distinct laws within the final bill. One of these laws was the Public Utilities Regulatory Policies Act of 1978. Title I of this act established retail regulatory policies for electrical utilities. The purpose was spelled out in Section 101 of the act:[71]

> The purposes of this title are to encourage--
> (1) conservation of energy supplied by electric utilities;
> (2) the optimization of the efficiency of use of facilities and resources by electric utilities; and

(3) equitable rates to electric consumers.

Section 111 of the act requires each state agency and non-regulated utility which sets rates to consider six standards and determine the appropriateness of these standards by public hearings. (In Minnesota non-regulated utilities are municipal utilities and cooperative utilities which have chosen not to be regulated by the PSC.) These standards are as follows:[72]

> (1) COST OF SERVICE.--Rates charged by any electric utility for providing electric service to each class of electric consumers shall be designed, to the maximum extent practicable, to reflect the costs of providing electric service to such class, as determined under section 115(a).
>
> (2) DECLINING BLOCK RATES.--The energy component of a rate, or the amount attributable to the energy component in a rate, charged by any electric utility for providing electric service during any period to any class of electric consumers may not decrease as kilowatt-hour consumption by such class increases during such period except to the extent that such utility demonstrates that the costs to such utility of providing electric service to such class which costs are attributable to such energy component decrease as such consumption increases during such period.
>
> (3) TIME-OF-DAY RATES.--The rates charged by any electric utility for providing electric service to each class of electric consumers shall be on a time-of-day basis which reflects the costs of providing electric service to such class of electric consumers at different times of the day unless such rates are not cost-effective with respect to such class as determined under section 115(b).
>
> (4) SEASONAL RATES.--The rates charged by an electric utility for providing electric service to each class of electric consumers shall be on a seasonal basis which reflects the costs of providing service to such class of consumers at different seasons of the year to the extent that such costs vary seasonally for such utility.
>
> (5) INTERRUPTIBLE RATES.--Each electric utility shall offer each industrial and commercial electric consumer an interruptible rate which reflects the cost of providing interruptible service to such consumer.
>
> (6) LOAD MANAGEMENT TECHNIQUES.--Each electric utility shall offer its electric consumers such load management techniques as the State regulatory authority (or the nonregulated electric utility) has determined will--
>
> (A) be practicable and cost-effective as determined under section 115(c),
> (B) be reliable, and
> (C) provide useful energy or capacity management advantages to the electric utility.

The Public Utilities Regulatory Policies Act requires each state to reflect these standards in their rate decisions within two years or earlier in any

proceeding if any party so requests. In addition, within two years each state agency or nonregulated utility must adopt by public hearings an additional set of standards provided by Section 113 of the act:[73]

> (1) MASTER METERING.--To the extent determined appropriate under section 115(d), master metering of electric service in the case of new buildings shall be prohibited or restricted to the extent necessary to carry out the purposes of this title.
>
> (2) AUTOMATIC ADJUSTMENT CLAUSES.--No electric utility may increase any rate pursuant to an automatic adjustment clause unless such clause meets the requirements of section 115(e).
>
> (3) INFORMATION TO CONSUMERS.--Each electric utility shall transmit to each of its electric consumers information regarding rate schedules in accordance with the requirements of section 115(f).
>
> (4) PROCEDURES FOR TERMINATION OF ELECTRIC SERVICE.--No electric utility may terminate electric service to any electric consumer except pursuant to procedures described in section 115(g).
>
> (5) ADVERTISING.--No electric utility may recover from any person other than the shareholders (or other owners) of such utility any direct or indirect expenditure by such utility for promotional or political advertising as defined in section 115(h).

Furthermore, the act affects state agencies or non-regulated utilities by (1) permitting them to set lower rates for residential consumers for essential needs (Section 114); (2) providing for special rules for setting certain standards under Sections 111 and 113 (Section 115); (3) requiring reports from agencies and utilities (Section 116); (4) permitting the public and utilities to intervene in rate proceedings as a matter of right (Section 121); and (5) providing assistance to states which set electrical rates (Section 141).

2.6 Public Participation

The role of the people in government decision making has changed substantially over the last two hundred years. In the early years of this country the primary forum for public participation was the local town hall meeting, where most decisions affecting the people were made. The public elected additional representatives to perform such tasks as run the post office, collect tariffs, and provide for the common defense,which were beyond the scope of the town meeting. But government has changed drastically over the last two hundred years and in many

ways beyond the projections of Alexis de Tocqueville. Government has become more and more centralized and the public's input into the decision making process has diminished in proportion to and at the same rate as this increased centralization. Today, government affects and controls much of the day-to-day behavior of its citizens.

Since the Civil War, civil government has altered dramatically. No longer does the legislative branch spell out the do's and don't's for American society; rather, it delegates authority to administrative agencies which spell out the do's and don't's. These administrative agencies are run by people who are not elected and who are generally unaffected by their decisions and unaccountable for their actions. The legislative branch, by giving up its decision making authority to these agencies, has diminished its role as an equal branch of government and has relegated the executive branch to a superior position. The problem is compounded by the lack of little, if any, oversight capability within the legislative branch, particularly on the state level.

However, the administrative agencies are not totally unaccountable for their actions. The long-standing tradition of public participation in agency decision making is still present. The fifth and fourteenth amendments to the U. S. Constitution provide for due process in agency decision making. Since World War II, the Congress and most state legislatures have passed administrative procedures acts and other laws, which provide for public input and accountability and which specify the due process requirements for agency decision-making. This section reviews the due process requirements in Minnesota and other laws which enhance public participation.

The purpose of reviewing the Administrative Procedures Act (APA) and the Minnesota Environmental Rights Act (MERA) in some detail is to provide an overview of the laws affecting citizen access and rights in administrative agency proceedings. The rights of citizens to become involved in administrative processes and the procedures they must follow are provided by these laws. Therefore, in order to

understand the conditions under which citizens may get involved in rule-making, quasi-judicial cases, and judicial review thereof, an explanation of the administrative processes and obstacles is in order.

A. Administrative Procedures Act

Minnesota Statutes, Chapter 15 sets forth provisions relating to the administration of state departments and agencies. Table 2-10 summarizes the main provisions of this chapter as it relates to this study. Chapter 15 contains the Administrative Procedures Act (APA), M. S. §15.0411-.052. The APA establishes procedures relating to (1) the adoption of rules; (2) petitioning for the adoption of rules; (3) judicial review of validity of rules, agency review of licenses and registrations, agency decisions; and (4) the scope of review. The APA also provides for the publication of rules, the creation of a state register, and the creation of the Office of Hearing Examiners.

A clearer image of the role of due process may be seen by how the courts have reviewed the rule-making process and agencies' decisions under the APA and the state and federal constitutions. There are three major areas in which the courts have interpreted the APA as it relates to this study: (1) the general rule-making procedure; (2) judicial intervention of agency decisions; and (3) the special case of quasi-judicial agencies.

The Administrative Procedures Act (APA), which only applies to agencies having statewide jurisdiction, is intended to protect those who may normally be expected to suffer particular injury from agency actions. The courts look to the agency's specific statutory language to determine this protected group in light of any harm to be prevented.[74,75] As noted earlier, the APA is subject to judicial review of agency rules and decisions. The courts have interpreted this to mean that the legislative scheme in defining "rule" for purposes of the APA was to include agency activities within the general definition of "rule" and then to exclude such specific activity as was deemed beneficial to efficient government and public participation.[76] One of the basic purposes of administrative regulation, as recognized by the courts,

TABLE 2-10

SUMMARY OF THE ADMINISTRATIVE PROCEDURES ACT

PARTS & SECTION	PURPOSE
art I	Administration: General
.S. § 15.01	Designation of departments of state government.
§ 15.012	Designation of types of state agencies. Defines agency, board, council, commission, authority, and advisory task force.
§ 15.014	Subdivision 1. Policy on Advisory Task Forces. It is the policy of the legislature to encourage state agencies to solicit and receive advice from members of the public. This advice can best be rendered by an advisory task force of a reasonable number of persons working for a limited duration on a specific and clearly defined subject. By this section it is the intent of the legislature to provide for a common nomenclature scheme, facilitate the gathering of advice, and limit the proliferation of costly, unnecessary or outmoded advisory agencies.
§ 15.015-.04	Determines the effect of the transfer of functions under the Government Reorganization Act of 1969.
art II	Administrative Procedures Act
.S. § 15.0411	Defines "agency," rule," and "contested case."
§ 15.0412	Specifies procedures for the adoption of rules.
§ 15.0413	Effect of adoption of rules, publication, appropriation.
§ 15.0415	Petition for adoption of rules. Any interested persons may petition an agency requesting the adoption, suspension, amendment or repeal of any rule. The petition shall be specific as to what action is requested and the need for the action. Upon receipt of such a petition an agency shall have 60 days in which to make a specific and detailed reply in writing as to its planned disposition of the request. If the agency states its intention to hold a public hearing on the subject of the request, it shall proceed according to section 15.0412. The attorney general shall prescribe by rule the form for all petitions under this section and may prescribe further procedures for their submission, consideration, and disposition.
§ 15.0416	The validity of any rule may be determined by a petition for declaratory judgment.
§ 15.0417	A rule is declared invalid if it violates the constitution or exceeds state authority.
§ 15.0418 - .0422	Procedures for contested cases.
§ 15.0423	Procedures for judicial review of licenses or registrations.
§ 15.0424	Judicial Review of Agency Decisions. Subdivision 1. Application. Any person aggrieved by a final decision in a contested case of any agency as defined in section 15.0411, subdivision 2 (including those agencies excluded from the definition of "agency" in section 15.0411, subdivision 2, but excepting the tax court, the workers' compensation court of appeals sitting on workers' compensation cases, the department of economic security, the director of mediation services, and the department of public service), whether such decision is affirmative or negative in form, is entitled to judicial review thereof, but nothing in this section shall be deemed to prevent resort to other means of review, redress, relief, or trial de novo provided by law now or hereafter enacted. The term "final decision" as herein used shall not embrace a proposed or tentative decision until it has become the decision of the agency either by express approval or by the failure of an aggrieved person to file exceptions thereto within a prescribed time under the agency's rules. Subdivision 2 through 6. Procedures for judicial review.
§ 15.0425	Scope of Judicial Review. In any proceedings for judicial review by any court of decisions of any agency as defined in section 15.0411, subdivision 2 (including those agencies excluded from the definition of agency in section 15.0411, subdivision 2) the court may affirm the decision of the agency or remand the case for further proceedings; or it may reverse or modify the decision if the substantial rights of the petitioners may have been prejudiced because the administrative finding, inferences, conclusions, or decisions are: (a) In violation of constitutional provisions; or (b) In excess of the statutory authority or jurisdiction of the agency; or (c) Made upon unlawful procedure; or (d) Affected by other error of law; or (e) Unsupported by substantial evidence in view of the entire record as submitted; or (f) Arbitrary or capricious.
§ 15.0426	Any aggrieved party may appeal to the Supreme Court.
§ 15.047	A manual of state agency rules shall be published by the Department of Administration.
§ 15.048	The publication or citation of a rule in the State Register in a manner as required by Sections 15.0411 to 15.052 raises a rebuttable presumption that: (1) the rule or order was duly adopted, issues, or promulgated; (2) the rule or order was duly filed with the Secretary of State and available for public inspection at the day and hour endorsed thereon; and (3) the copy of the rule or order published in the State Register is a true copy of the original.
§ 15.049	Judicial notice shall be taken of material published in the State Register.
§ 15.051	State Register. Subdivision 1. Purpose. The commissioner of administration shall publish a state register containing all notices for hearings concerning rules, giving time, place, and purpose of the hearing and the full text of the action being proposed. Further, the register shall contain all rules, amendments, suspensions, or repeals thereof, pursuant to the provisions of this chapter. The commissioner shall further publish any executive order issued by the governor which shall become effective 15 days after publication except as provided in section 4.035, subdivision 2. The commissioner shall further publish any official notices in the register which a state agency requests him to publish. Such notices shall include, but shall not be limited to, the date on which a new agency becomes operational, the assumption of a new function by an existing state agency, or the appointment of commissioners. The commissioner may prescribe the form and manner in which agencies submit any material for publication in the state register, and he may withhold publication of any material not submitted according to the form or procedures he has prescribed. The commissioner of administration may organize and distribute the contents of the register according to such categories as will provide economic publication and distribution and will offer easy access to information by any interested party.
§ 15.052	Creates the Office of Hearing Examiners.

is to leave preciseness and detail of the application of legislative policy to administrators who supposedly will bring an expert's familiarity to bear upon the problems under consideration.[77] The act requires formal adoption of rules only when they are to have the force and effect of law.[78]

The courts believe that to vest regulatory power in an administrative agency implied that the agency has the power to formulate necessary classifications within the area of regulation so vested.[79] It should be noted that when the courts declare an agency action invalid, the determination of invalidity does not transfer the agency's legislative powers to the courts.[80] In addition, the legislature is constitutionally prohibited from delegating to the judicial branch duties which are essentially administrative in nature.[81]

The APA is designed to prevent administrative officials from exercising discretion by mere whim or impulse, however well-intentioned they may be, but requires them to follow due process in their official acts and in the promulgation of rules defining agency operations.[82] The adoption of a rule is in itself a discretionary function. However, once adopted, an administrative agency does not have discretion to ignore its rule, and once it is filed with the Secretary of State, this rule has the force and effect of law and binds the agency which adopts it.[83] The Supreme Court judicially notices documents filed with the Secretary of State.[84] The function of judicial notice is to expedite litigation by (1) eliminating cost or delay; (2) formally proving matters of fact which are otherwise demonstrable; and (3) resorting to unquestionable sources of information.[85] Nevertheless, the court's decision on matters of law are binding upon administrative agencies and courts can, by writ of mandamus, compel performance of a judicially determined mandatory duty rather than remand to the agency for further proceedings under the APA.[86]

The APA requires an administrative board or agency to state with clarity and completeness the facts and conclusions essential to its decision so that a reviewing court can determine from the record whether the facts furnish justifiable

reason for the agency's action. Where there is a lack of evidence to support the agency's conclusions, the APA requires the district court to remand the case back to the agency to receive additional evidence and testimony.[87] The courts have also ruled that where the evidence on the record in a hearing permits more than one inference to be drawn, regardless if the evidence is conflicting or undisputed, the findings of the hearing examiner must be upheld by the court.[88] If the hearing record is incomplete at first, but corrected by addition to the official record, and there was what in substance was a complete record before the court, judicial review is possible without remand to the agency.[89]

In sum, the APA is an act to meet due process requirements in the delegation of legislative functions to an administrative agency. If the agency adopts rules pursuant to that delegated authority, then the APA should be followed in promulgating those rules.[90] However, specific provisions of a statute relating to administrative procedures take precedence over general provisions of the APA.[91] The APA will prevail over conflicting statutory provisions dealing with appeals of decisions.[92]

A second major area where the courts have interpreted the APA is the role of judicial intervention of agency decisions. The issues involved in judicial review include the right to review and the applicable standard for review.

Minnesota Statutes §15.0424-.0426 clarify the right of judicial review by any party aggrieved by an agency decision. The right to review expires 30 days after the agency issues its order and the petition for review of the agency decision must be filed within 30 days or the court is without jurisdiction to hear the complaint.[93,94] One standard that the court has used, where a statute is ambiguous about the right to review, is that if there is evidence of public demand for review of agency decisions, a hearing is required and the decisions arrived at as a result of that hearing are subject to judicial review by an aggrieved party. Consequently, there is a presumption in favor of judicial review of agency decisions in absence of language to the contrary.[95]

One important question that arises in the right to judicial review by an aggrieved party is how "aggrieved" must that party be? The modern tendency in federal and Minnesota courts is to reduce "lack of standing" as a defense of or hindrance in considering and resolving substantive questions involved in litigation. The Minnesota Supreme Court has interpreted an "aggrieved party" under the APA to be a person who is injuriously or adversely affected by the judgment or decree of an administrative board when it operates on his or her right of property or bears directly upon his or her personal interest.[96] The courts use the "injury in fact" test for standing to challenge administrative actions under the APA unless there is a clear legislative intent to the contrary.[97]

How much injury must be shown? The United States Supreme Court in United States v. Students Challenging Regulatory Agency Procedures, 1973 ruled:[98]

> The Government urges us to limit standing to those who have been 'significantly' affected by agency action. But, even if we could begin to define what such a test would mean, we think it fundamentally misconceived. 'Injury in fact' reflects the statutory requirement that a person with a direct stake in the outcome of a litigation--even though small--from a person with a mere interest in the problem. We have allowed important interests to be vindicated by plaintiffs with no more at stake in the outcome of an action than a fraction of a vote,. . . a $5.00 fine and costs, . . . and a $1.50 poll tax.
>
> . . . While these cases were not dealing specifically with section 10 of the APA, we see no reason to adopt a more restrictive interpretation of 'adversely affected' or 'aggrieved.' As Professor (Kenneth C.) Davis has put it: 'the basic idea that comes out in numerous cases is that an identifiable trifle is enough for standing to fight out a question of principle; the trifle is the basis for standing and the principle supplies the motivation.

In Sierra Club v. Morton, 1972, the court also noted:[99]

> Where the party does not rely on any specific statute authorizing invocation of the judicial process, the question of standing depends upon whether the party has alleged such a 'personal stake in the outcome of the controversy,' . . . as to ensure that 'the dispute sought to be adjudicated will be presented in an adversary context and in a form historically viewed as capable of judicial resolution'. . . Where, however, Congress has authorized public officials to perform certain functions according to law, and has provided by statute for judicial review of those actions under certain circumstances, the inquiry as to standing must begin with a determination of whether the statute in question authorizes review at the behest of the plaintiff.'

> Congress may not confer jurisdiction on Art. III feperal courts to render advisory opinions. . . or to entertain 'friendly' suits. . . or to resolve ' political questions,'. . . because suits of this character are inconsistent with the judicial function under Art. III. But where a dispute is otherwise justiciable, the question whether the litigant is a 'proper party to request an adjudication of a particular issue,' . . . is one within the power of Congress to determine. (Citations omitted.)

Two other related points about standing are of interest. First, government agencies cannot demand formal hearings based upon constitutional due process; rather, they can only do so based upon a statute conferring the right.[100] Individuals owning land within a designated corridor can, as "aggrieved parties," appeal the issuance of a certificate of corridor compatibility by MEQB and construction permits.[101]

Another important question is under what circumstances the court will overturn or modify an agency's decision. As noted earlier, if the record shows a lack of evidence, then the court will remand or send back the case to the agency for further hearings. There are numerous cases that have been decided by the courts, particularly within the last decade or so, that answer this question. Generally, the review of an agency's decision is very limited.[102] Unless there is manifest injustice, the trial court and the Supreme Court must refrain from substituting their judgments concerning inferences to be drawn from evidence for the judgment of the agency (even though the court would be inclined to reach different results if it were the agency).[103]

In short, decisions of administrative agencies enjoy a presumption of correctness, and deference should be shown by courts to the agency's expertise and its special knowledge in the field of its technical training, education, and experience.[104] Overall, the court will not interfere with the conclusions of administrative agencies unless it appears that the agency has violated constitutional provisions, has exceeded its statutory authority or jurisdiction, has followed unlawful procedures, has proceeded on an erroneous theory of law, has taken action without substantial evidence in support thereof, or has acted arbitrarily or capriciously so that its

determination represents its will and not its judgment.[105]

A third major area where the courts have interpreted the APA is that of the special case involving quasi-judicial agencies. Determining whether an agency acts judicially or quasi-judicially is difficult and no hard and fast rule can be applied; rather it is necessary in each instance to examine the nature and "quality" of the action taken by the agency. One step in determining whether an agency acts quasi-judicially is to consider whether the function being examined involves an exercise of discretion and requires notice and hearing under the APA.[106] The court looks at the record of the agency's action as a whole and examines that action to determine whether it affects a personal right or obligation.[107] Another method of detecting quasi-judicial administrative agencies is to determine whether the agency resolves controversies and must wait for parties to appear before it rather than acting upon its own initiative.[108] Quasi-judicial agencies do not have standing to appeal their decisions overturned by a lower court.[109]

Energy-related agency activities that may be quasi-judicial include the issuance of a certificate of need by the Minnesota Energy Agency, the issuance of a certificate of site compatibility by the MEQB, permitting functions of permitting agencies, and rate determinations by the Public Service Commission.

B. Minnesota Environmental Rights Act

Although Congress and the states have passed numerous laws recognizing and encouraging public participation, the idea of public involvement is stated best in the National Environmental Policy Act of 1969. This act emphasized the importance of citizen involvement in enhancing the quality of the environment:[110]

> The Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.

Minnesota put teeth in this statement when it enacted the Minnesota Environmental Rights Act (MERA) in 1971. The purpose of MERA is spelled out in its opening section:[111]

> The legislature finds and declares that each person is entitled by right to the protection, preservation, and enhancement of air, water, land, and other natural resources located within the state and that each person has the responsibility to contribute to the protection, preservation, and enhancement thereof. The legislature further declares its policy to create and maintain within the state conditions under which man and nature can exist in productive harmony in order that present and future generations may enjoy clear air and water, productive land, and other natural resources with which this state has been endowed. Accordingly, it is in the public interest to provide an adequate civil remedy to protect air, water, land, and other natural resources located within the state from pollution, impairment, or destruction.

A summary of the provisions of MERA is contained in Table 2-11.

Prior to the passage of MERA, the people of Minnesota were unable to protect the environment effectively through judicial action. Any person whose property was injuriously affected or whose personal enjoyment was lessened by a nuisance such as environmental pollution could maintain a private nuisance action.[112] If the nuisance affected a considerable number of people, then the right to recovery damages was modified.[113] Under this circumstance an individual had to show that he or she suffered an injury that was special or peculiar to him or herself and not common to the general public before he or she could recover damages.[114] In many circumstances this was difficult, if not impossible, to do.

The Minnesota Environmental Rights Act changed this. MERA extends the ability of private individuals and groups to maintain an action to protect the environment by extending "standing" to:[115]

> Any person residing within the state; the attorney general, any political subdivision of the state; any instrumentality or agency of the state or of a political subdivision thereof; or any partnership, corporation, association, organization, or other entity having shareholders, members, partners, or employees residing within the state may maintain a civil action in the district court for declaratory or equitable relief in the name of the state of Minnesota against any person, for the protection of the air, water, land, or other natural resources located within the state, whether public or privately owned from pollution, impairment, or destruction; provided, however, that no action shall be allowable hereunder for acts taken by a person on land leased or owned by said person pursuant to a permit or license issued by the owner of the land to said person which do not and cannot reasonably be expected to pollute, impair, or destroy any other air, water, land, or other natural resources located within the state; provided further that no action shall be allowable under this section for conduct taken by a person pursuant to any environmental quality standard, limitation, regulation, rule, order, license, stipulation

TABLE 2-11

SUMMARY OF THE MINNESOTA ENVIRONMENTAL RIGHTS ACT

SECTION	PURPOSE
M.S. § 116B.01	PURPOSE. The legislature finds and declares that each person is entitled by right to the protection, preservation, and enhancement of air, water, land, and other natural resources located within the state and that each person has the responsibility to contribute to the protection, preservation, and enhancement thereof. The legislature further declares its policy to create and maintain within the state conditions under which man and nature can exist in productive harmony in order that present and future generations may enjoy clean air and water, productive land, and other natural resources with which this state has been endowed. Accordingly, it is in the public interest to provide an adequate civil remedy to protect air, water, land, and other natural resources located within the state from pollution, impairment, or destruction.
§ 116B.02	Definitions.
§ 116B.03	CIVIL ACTIONS. Subdivision 1. Any person residing within the state; the attorney general; any political subdivision of the state; any instrumentality or agency of the state or of a political subdivision thereof; or any partnership, corporation, association, organization, or other entity having shareholders, members, partners or employees residing within the state may maintain a civil action in the district court for declaratory or equitable relief in the name of the state of Minnesota against any person, for the protection of the air, water, land, or other natural resources located within the state, whether publicly or privately owned, from pollution, impairment, or destruction; provided, however, that no action shall be allowable hereunder for acts taken by a person on land leased or owned by said person pursuant to a permit or license issued by the owner of the land to said person which do not and can not reasonably be expected to pollute, impair, or destroy any other air, water, land, or other natural resources located within the state; provided further that no action shall be allowable under this section for conduct taken by a person pursuant to any environmental quality standard, limitation, regulation, rule, order, license, stipulation agreement or permit issued by the pollution control agency, department of natural resources, department of health or department of agriculture. Subdivisions 2 through 5 establish procedures affecting judicial review.
§ 116B.04	Plaintiff need only show a prima facie case. Defendant may rebutt by showing contrary evidence or "no feasible or prudent slternative and conduct at issue is consistent with . . . promotion of public health . . ." Economic considerations alone do not constitute a defense.
§ 116B.05 - .13	Provides for judicial and legal procedures for actions brought under the act.

> agreement or permit issued by the pollution control agency, department of natural resources, department of health or department of agriculture.

The act provides for four types of suits including action to (1) enforce existing environmental quality standards; (2) stop activities that adversely affect the environment; (3) permit intervention into administrative proceedings or judicial review thereof where the decisions of the proceedings may cause pollution; and (4) challenge the adequacy of environmental standards or regulations.[116] The relief the court may grant includes:[117]

> The court may grant declaratory relief, temporary and permanent equitable relief, or may impose such conditions upon a party as are necessary or appropriate to protect the air, water, land, or other natural resources located within the state from pollution, impairment, or destruction. When the court grants temporary equitable relief, it may require the plaintiff to post a bond sufficient to indemnify the defendant for damages suffered because of the temporary relief, if permanent relief is not granted.

The ultimate effect of MERA is to allow the principal function of the courts in environmental matters to occur. This function was described by Joseph Sax in Defending the Environment:[118]

> The principal function of courts in environmental matters is to restrain projects that have not been adequately planned and to insist that they not go forward unless and until those who wish to promote them can demonstrate that they have considered and adequately resolved, reasonable doubts about their consequences.

A recent law review commentary on MERA summarized the reasons for the law's enactment:[119]

> In the past, only legislative or administrative action had the potential to effectively protect the environment. Recent years, however, have seen the rise of increased sentiment that this potential has not been fulfilled. Legislation such as the Minnesota Environmental Rights Act is a major response to this problem. It provides a third alternative for protection of the environment. By giving courts more power to deal with environmental matters, it not only allows citizen initiative to play a part in preservation of our natural resources buy may also serve as a catalyst for increased administrative response to such problems.
>
> However, this type of legislation is based on the premise that the courts will be more receptive to increased protection of natural resources than are administrative agencies set up to pursue that goal. To the extent this is an accurate evaluation, the Act will provide for increased protection of the environment.

The Minnesota Environmental Rights Act (MERA), like most other laws reviewed in this chapter, has been reviewed by the courts. The courts in interpreting MERA believe this law was enacted to ensure that effects on the environment were considered by persons conducting any type of activity within the state falling in the purview of the act.[120] The legislature intended to permit private citizens to bring or intervene in civil actions to protect the state's natural resources whenever they thought the government had not done an adequate job of protecting the environment.[121] MERA has in effect created the fight for each person to preserve and protect the natural resources within the state and has created a legal remedy for implementing this right.[122]

Each citizen who brings a civil action under MERA must make a prima facie showing that the conduct of the defendant violates or is likely to violate an environmental standard, license, or agreement. To establish a prima facie case under MERA the citizen must prove that a protectable natural resource is involved and that pollution, impairment, or destruction of that resource is occurring or likely to occur.[123] MERA allows the citizen to establish pollution, impairment, or destruction of the environment by proving that the conduct in question violates any environmental quality standard, rule, or regulation of the state or political subdivision, or by proving that the conduct materially adversely affects or is likely to affect the environment.[124] The defendant may rebutt the prima facie case by showing that there is no feasible or prudent alternative existing and that its conduct will promote the public health, safety, or welfare.[125] In sum, MERA confers a right of "standing" upon citizens to bring civil actions to protect the public health, welfare, and the environment.[126]

C. Public Participation in Energy Statutes

In addition to the above two laws, the enabling legislation for the energy-related agencies provide additional rights, procedures, and aid in facilitating citizen participation in these administrative processes. Some of these rights, procedures, and aids include (1) a citizen advisor notifies citizens and explains

the processes for siting power plants and lines; (2) a citizen advocate for residential utility customers in rate requests by PSC regulated utilites is housed in the Office of Consumer Services; (3) the EIS process provides for public review and comment on site specific EIS's; and (4) a host of other procedures relating to planning, rule making, hearings, and judicial review. A summary of the public participation impact procedures is found in Table 2-12. The table reviews the type of activities of energy-related agencies and shows (1) where the public may participate in the process; (2) the help it receives; and (3) the statutory sources conveying the rights and help.

TABLE 2-12

SUMMARY OF PUBLIC ACCESS TO ENERGY RELATED DECISIONS

Type of Activity	MEA Certificate of Need	MEQB Power Line Routing/Power Plant Siting	MEQB-EIS Process	MEQB Environmental Corrdination Procedures	Permitting Agencies; MPCA Permits (Air)	PSC Electric Rates	PSC Service Areas
Planning	No	Power Plant Study Areas; hearings--M.S. §116C.55	NA	NA	NA	No	No
Rule Making	Chapter 15 (M.S. §116H.08, .12, and .13)	Chapter 15 (M.S. §116C.66)	Chapter 15 (M.S. §116D.04, Subd. 2)	Chapter 15 (M.S. §116C.32)	Chapter 15 (M.S. §116.07, Subd. 4)	Chapter 15 (M.S. §216A.05)	Chapter 15 (M.S. §216A.05)
Hearings							
1. Type	Formal--Ch. 15	Formal--Ch. 15	Informal 6 MCAR §3.027	Formal--Ch. 15	Formal--Ch. 15	Formal--Ch. 15 & M.S. §216B.16	Formal--M.S. §216B.43
2. Notice	State Register, newspapers, other--EA 504	State Register, legal newspapers, public advisor, certified mail	State Register, EQC Monitor, Sec. of State, Newspapers, Mailing list	State Register, newspapers	State Register, Sec. of State, Newspapers, Mailing list	State Register, mailing list	Mailing list
3. Standing-testimony	Yes--EA 503 9 MCAR §2.211(E)	No--MEQB 73(G), 74(G), 9 MCAR §2.407	No	Yes--6 MCAR §3.106(a), 9 MCAR §2.211(C)	Yes--9 MCAR §2.211(E)	Yes M.S. §216B.15	Yes M.S. §216B.15
4. Right to Intervene "Party"	Limited--EA 506 9 MCAR §2.211(B)	Limited 9 MCAR §2.408(c)	No limit	Limited--6 MCAR §3.106(a), 9 MCAR §2.211(B)	Limited--9 MCAR §2.211(B)	No limit--PURPA of 1978 §121	--
Judicial Review							
1. Provision	Chapter 15	Chapter 15	Chapter 15	Chapter 15	Chapter 15	Chapter 15	Chapter 15
2. Standing	"Aggrieved party"	"Aggrieved party"	"Aggrieved party"	"Aggrieved party"	"Aggrieved party"	"Aggrieved party"	"Aggrieved party"
3. MERA	Yes	Yes	Yes	Yes	Yes	No	No
4. Other	No	No	No	No	No	"Matter of right" M.S. §216B.52 PURPA §121	"Matter of right" M.S. §216B.52
Advisory Committee	No	Yes M.S. §116C.59(1) M.S. §116C.05	Yes M.S. §116C.05	No	No	No	No
Public Advisor	No	Yes M.S. §116C.59(3)	No	No	No	No	No
Citizen Advocate	No	No	No	No	No	Yes M.S. §45.17	No
Public Funding	No	No	No	No	No	Yes PURPA §121	No
Other Public Participation	No	Yes--broad spectrum public participation M.S. §116C.59(2)	Yes--EIS is required by petition of 500 people M.S. §116D.04(3)	No	No	No	No

CHAPTER THREE

PUBLIC PARTICIPATION IN ENERGY-RELATED DECISION MAKING

In a little over ten years America will celebrate the "bicentennial" of the ratification of the Constitution of the United States of America. The Constitution and the Bill of Rights were the culmination of the "shot heard around the world." In 1789 few, if any, people foresaw the scope and direction government and technology would take 200 years later. Today, the impact of both government and technology pervade our life to an extent never before faced by our species. The interface of government and energy technology occurred at about the same time as our revolution. As the dawn of the "industrial revolution" brought forth new products and new changes in economic and social aspects of our culture, so too did the reformation and renaissance bring forth new ideas and new opportunities for man to control his destiny. These changes, largely engendered by man himself, have profound ramifications for policy issues today.

The notions of "free enterprise", "democracy", and "due process" greatly influence decisions and images people have about governmental policy. Today, Western society is experiencing great debates over technology and its economic and social ramifications as well as the ability and integrity of governmental institutions to cope with the unanticipated side effects that have accompanied many technologies. Energy technology is just one of many examples where the technology and governmental institutions are being questioned by many people (in particular, the debates of nuclear and coal power plants and the associated high voltage transmission lines (HVTLs)). In Minnesota, public concern expressed over power plants is considerable. The summary of the 1978 public hearing on the power plant siting program of the Minnesota Environmental Quality Board (MEQB) noted extensive public concern over many aspects of power plant siting.[1] In addition, the increased militancy of some people over nuclear power and HVTLs and the questioning by many parties of the adequacy and objectivity of government institutions

which make decisions on these technologies is becoming more common.[2,3] With this increased concern and militancy has come increased demand for "public" input into decisionmaking and demands for new institutions to resolve disputes. It may very well be that "the implementation of public policies concerning technology and the very legitimacy of the responsible authorities may depend on the politics of participation."[4]

Some utilities in Minnesota have stated that public participation has "no place" in energy-related decisionmaking.[5] Other utilities have suggested that energy issues are too complicated and "cannot be carried out in an open forum . . . ."[6] The question of whether there should be public participation in energy-related decisionmaking needs to be examined in the social and political context of dispute resolution in a democracy. Minnesota through its laws and Constitution, has established that public participation is an integral part of decisionmaking. Section 2.6 of chapter two shows that public participation is firmly entrenched as a policy in Minnesota government. In addition, many studies including the final report of the Ford Foundation's Energy Policy Project: A Time to Choose; the multi-volume study of the Nuclear Regulatory Commission: Improving Regulatory Effectiveness in Federal/State Siting Actions; the United States Senate Committee on Governmental Affairs report: Study on Federal Regulation, Vol. III: Public Participation in Regulatory Agency Proceedings; the Association of the Bar of the City of New York in its report: Electricity and the Environment: The Reform of Legal Institutions; the Administrative Conference of the United States recommendation 28: Public Participation in Administrative Hearings; as well as a whole host of other studies all advocate that public participation is a necessary and integral part of decisionmaking, particularly energy-related decisionmaking, and that it needs to be expanded and made more effective.

This chapter will examine the efficacy of public participation mechanisms (section 3.2) and the equity of these mechanisms (section 3.3) to determine if the public can realistically participate as an equal in the decisionmaking process. However, in order to set the stage for examining public participation mechanisms in energy-related

decisions, section 3.1 will review in a generic fashion the socio-political aspects of dispute resolution involving technology in a democratic republic.

3.1 Dispute Resolution Involving Technology in a Democratic Republic

Regulatory processes, particularly those that result in decisions involving technology, implicitly reflect values. These values, which in theory are the values of the society at large, often reflect the concerns of a small group. The history of regulation is full of instances in which an agency became a willing or unwilling pawn of the group it was supposed to regulate. Under these circumstances, the regulatory process reflected the values of the fox guarding the chicken coop rather than that of the farmer protecting the chickens from the fox. In many situations like this, the public almost immediately recognizes the incongruity and remedies the problem. Technology, however, particularly "high technology," which is increasingly common today, introduces an element not found in ordinary situations. This element is the "image" a technology presents to the person who uses it. For example, it has been often reported that many people believe that milk comes from a factory and that they see no relationship between milk and cows. This image can be explained because agriculture has no relationship to the day-to-day existence of many people. A broader example affecting most people is the image of electricity. People do not "see" electricity. They flick a switch and a light goes on, an oven heats up, the TV turns on, or the radio emits "music." Many people do not associate electricity with power plants, transmission lines, or "exogenous" effects such as air and water pollution. Consequently, when problems arise with a technology in which people do not perceive any relationship among themselves, the technology, and the regulatory process that oversees the technology, it becomes difficult to understand that a problem may exist.

This section addresses issues relating to the regulatory process involving a technology which elicits strong reactions from many sectors of the community. A technology which increasingly affects the financial resources, health and welfare,

and land values of the community, and which is extensively regulated by government, deserves public scrutiny. Since the generation, transmission, distribution, and use of electricity is so pervasive an element in our culture, the characteristics of modern technology and the relationship between technology and values, conflicts and control will be addressed.

A. Characteristics of Technology

Science and technology are practiced in many forms and by many types of institutions. Basic research in physical, biological, and social sciences is nearly always conducted in academic institutions and is largely supported by government. Applied research and development, which denotes a broad range of scientific and technological endeavors, are usually undertaken by industry or government to meet a specific objective in order to satisfy a client, societal need, or a "market." Another category of science and technology is that of "practical engineering" in which the latest capabilities are employed to construct facilities and devices or other goods for societal use.[7]

In order to understand society's growing concern with technology, it is necessary to understand some of the characteristics of modern technology. One characteristic is the potency of today's technology. Modern man's ability to predict, control, and alter the physical milieu is awesome. Man can level mountains and forests, change weather, and the flow of rivers.[8] Man can now destroy himself with chemicals of unbelievable toxicity, manufacture radioactive isotopes in such quantities that only a small portion, if released, could destroy life on the entire planet, and now experiments with genetic materials to synthesize new life forms as if he were God.[9,10] "We have now, or know how to acquire, the technical ability to do nearly anything we want."[11] This ability to "do nearly anything we want" introduces a qualitative difference in the relationship of man to technology that did not exist even 50 years ago.

A second characteristic of technology today is its ubiquity. Today's technology is applied on a massive scale, usually for economic reasons, and affects nearly everyone everywhere. Almost any given technology is likely to be diffused throughout cultures in most of the world. Technology today touches nearly every aspect of our lives. In addition, commercial interests permeate a technology in which they derive a substantial economic benefit, which may result in the perpetuation of a technology long after it is needed and long after a more prudent alternative is available. This pervasiveness minimizes diversity both of technologies and lifestyles, ignores social and environmental consequences, indentures people to the technology, and "tends to cause overengineered solutions to problems," (i.e., often expensive, sophisticated technology will be used when simple solutions would work just as well).[12,13] Today, "large scale change comes quickly and is dominated by technology."[14]

A third characteristic of today's technology is its pace. Alvin Toffler coined the term "future shock" to describe the stress and disorientation that affects people when they are exposed to too much change in too short a time. Toffler believes that "future shock" is "no longer a distant potential danger, but a real sickness from which increasingly large numbers already suffer."[15] Toffler believes that technology is responsible for the fast pace of modern society. The "knowledge explosion" and short-time period from idea to marketplace are the principal factors for this fast pace. The time from idea to marketplace has decreased by half in the last few decades.[16]

A fourth characteristic of technology today is that it is self-accelerating. It has long been noted that ideas and technology both fulfill and create expectations simultaneously. These expectations in turn engender new ideas which create "new instabilities and dissatisfactions demanding further change."[17] A classic example involves the ability of scientists to detect low levels of chemical agents and the effect this has had on public policy debate over the effects of toxic substances. This characteristic of technology can be envisioned as a closed system, self-

perpetuating and self-accelerating. The changes resulting from instabilities and dissatisfactions with a technology often become demands not only for new technologies, but also for new social and economic concepts and institutions. In short, science and technology are levers which drive each other. New technologies point out gaps in knowledge, and advances in basic research lead to new technologies with their unsuspected problems.

Another characteristic of today's technology is that it often lacks direction. It used to be said that necessity is the mother of invention. That this may no longer be true was recognized more than eighty years ago.[18] Some people believe that "competition" pushes technological advances whether companies like it or not.[19] Others argue that the consumer should determine the technological advances of consumer goods, via competition (the preference of one good over another).[20] What consumer demanded television, electric knives, airplanes and "nukes"? Instead, these things were the result of the "imperatives of technology," because of large investments, because of the latency period between the idea or discovery and the appearance of a good in the marketplace, and because the commitment to produce a good is inflexible."[21] At present, consumers must be sold on the "need" for many technologies, rather than being allowed to choose the technology "future man" wishes to create for himself.

B. Technology and Values

The characteristics of technology with all their social ramifications, complexities, and implications have only recently been recognized and are not widely appreciated. Many people, including some scientists, still cling to the notion that simplistic technological solutions can be found to many of the social side effects of technology. Such a notion indicates that there are no political components to technology policies, that costs, benefits, and risks are equally distributed throughout society, and that judgments and commitments can be based on complete and conclusive knowledge of the consequences. The possibility that such assessments may eventually have disasterous

effects is not even considered. Further, the possibility that technology may conflict with the values of some people is ignored under assessments based upon the above notions.

If technology is defined as a technique of the sciences, then a technical solution would be defined as a change only of technique and not of morality or values.[22] Yet, it is gradually being recognized that many problems resulting from technology have NO technical solution, but rather require a fundamental extension in values.[23] Examples of problems for which there are no technical solutions include the "arms race," the "population problem," the "pollution problem," and others. This fundamental difference in approach to problem solving (i.e., the difference between "technical solutions and extension of values") may be illustrated by the following two stories.

The "tragedy of the commons" story was first told by a mathematician William Foster Loyd in 1883:[24]

> The tragedy of the commons develops in this way. Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. Such an arrangement may work reasonably satisfactorily for centuries because tribal wars, poaching, and disease keep the numbers of both man and beast well below the carrying capacity of the land. Finally, however, comes the day of reckoning, that is, the day when the long-desired goal of social stability becomes a reality. At this point, the inherent logic of the commons remorselessly generates tragedy.
>
> As a rational being, each herdsman seeks to maximize his gain. Explicitly or implicitly, more or less consciously, he asks, "What is the utility to me of adding one more animal to my herd?" This utility has one negative and one positive component.
>
> 1) The positive component is a function of the increment of one animal. Since the herdsman receives all the proceeds from the sale of the additional animal, the positive utility is nearly +1.
>
> 2) The negative component is a function of the additional overgrazing created by one more animal. Since, however, the effects of overgrazing are shared by all the herdsmen, the negative utility for any particular decision-making herdsman is only a fraction of -1.
>
> Adding together the component partial utilities, the rational herdsman concludes that the only sensible course for him to pursue is the add another animal to his herd. And another, and another. . . . But this is the conclusion reached by each and every rational herdsman sharing a commons. Therein is the tragedy. Each man is locked into a system that compels him to increase his herd

> without limit--in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all.

The "tragedy of the commons" story illustrates the pollution problem clearly. Instead of cattle overgrazing a commons, air and water emissions from society's artifacts are overloading the biological milieu. It is not mathematically possible to maximize for two variables at the same time; in other words, one cannot use the environment as a cesspool and still preserve the integrity of that environment. A fundamental extension of values is essential to recognize that the environment is the "commons" and that the protection of the environment and human health must take precedence over the economic advantage of the entrepreneur.

The second story which may be titled "What has Posterity Ever Done for Me?" was written by economist Robert Heilbroner:[25]

> Will mankind survive? Who knows? The question I want to put is more searching: Who cares? It is clear that most of us today do not care--or at least do not care enough . . . Would we care enough for posterity to pay the price of its survival?
>
> I doubt it. A thousand years is unimaginably distant. Even a century far exceeds our powers of empathetic imagination. By the year 2075, I shall probably have been dead for three quarters of a century. My children will also likely be dead, and my grandchildren, if I have any, will be in their dotage. What does it matter to me, then, what life will be like in 2075, much less 3075? Why should I lift a finger to affect events that will have no more meaning for me 75 years after my death than those that happened 75 years before I was born?
>
> There is no rational answer to that terrible question. No argument based on reason will lead me to care for posterity or to lift a finger in its behalf. Indeed, by every rational consideration, precisely the opposite answer is thrust upon us with irresistible force. As a Distinguished Professor of political economy at the University of London has written in the current winter issue of Business and Society Review:
>
> > Suppose that, as a result of using up all the world's resources, human life did come to an end. So what? What is so desirable about an indefinite continuation of the human species, religious convictions apart? It may well be that nearly everybody who is already here on earth would be reluctant to die, and that everybody has an instinctive fear of death. But one must not confuse this with the notion that, in any meaningful sense, generations who are yet unborn can be said to be better off if they are born than if they are not.

> . . . Geological time (has been made comprehensible to our finite human minds by the statement that the 4.5 billion years of the earth's history (are) equivalent to once around the world in an SST. . . . Man got on eight miles before the end, and industrial man got on six feet before the end. . .Today we are having a debate about the extent to which man ought to maximize the length of time that he is on the airplane.
>
> According to what the scientists now think, the sun is gradually expanding and 12 billion years from now the earth will be swallowed up by the sun. This means that our airplane has time to go round three more times. Do we want man to be on it for all three times around the world? Are we interested in man being on for another eight miles? Are we interested in man being on for another six feet? Or are we only interested in man for a fraction of a millimeter--our lifetimes?. . . .
>
> . . . It is one thing to appraise matters of life and death by the principles of rational self-interest and quite another to take responsibility for our choice. I cannot imagine . . . personally consigning humanity to oblivion with the same equanimity with which [many] write off its demise. I am certain that if [someone] were made responsible for determining the precise length of stay of humanity on the SST, he would agonize over the problem and end up by exacting every last possible inch for mankind's journey.
>
> Of course, there are moral dilemmas to be faced even if one takes one's stand on the "survivalist" principle. Mankind cannot expect to continue on earth indefinitely if we do not curb population growth, thereby consigning billions or tens of billions to the oblivion of nonbirth. Yet, in this case, we sacrifice some portion of life-to-come in order that life itself may be preserved. This essential commitment to life's continuance gives us the moral authority to take measures, perhaps very harsh measures, whose justification cannot be found in the precepts of rationality, but must be sought in the unbearable anguish we feel if we imagine ourselves as the executioners of mankind.

The "posterity" story is really an extension of the "tragedy of the commons" story. The "tragedy of the commons" story illustrates that in order for a technology to be acceptable it must preserve the community. This is an accepted value. The "posterity" story states that the preservation of the community must extend to generations yet unborn. This is also an accepted value. When a technology negatively affects the community or life yet unborn, it directly challenges the values of people. The challenge of human values by technology is bound to generate conflict.

Some decision makers have argued that the duty to posterity ceases with the collapse of society's political institutions. If so, why then not maximize the

benefits of technology in one's own generation and let the inevitable collapse of political institutions occur after one's death? The fallacy of the argument is apparent. Either a value is morally imperative or its ceases to be a value. The imposition of arbitrary distinctions such as the viability of political institutions implies that value may not have existed to begin with.

The decisions regarding technology today do not include the consideration of values (except that of maximizing one's individual profits). True, anything that people want or think is good may be called a human value. If one assumes that people do not desire something because it is good, but that people consider it good because they desire it, then one may create values indiscriminately regardless of the effects on commons or posterity. Money is often called a "false" value, but it is obviously still valued. The same can be said about technology. It is a common assumption that technology (and the acquisition of property) is an end in itself. This assumption is continuously reinforced "by the energy that is used in making [things], the idolatry of efficiency as the sovereign ideal, the boasts of our wealth and power, and the national goal of steady economic growth."[26] While one cannot separate the means from the ends, one can distinguish between means and ends, both personally and for "sizing up our society." As noted previously, one of the characteristics of modern life is the pace at which technologies cause changes. Not only does technology change, but values are changed and destroyed at an increasing rate. "To the extent man can do all the things he can do and knows it, we are entitled to speak of the end of the world and the existence of an existential revolution. . . . Absolute power over himself and [the] environment puts man in a radically new moral position."[27]

C. Technology and Conflict

An examination of history shows constant tensions between two opposite forms of social organization--between small-and large-scale organizations and between personal autonomy and institutional regulation. Lewis Mumford believes that these conflicts

are "deeply embedded in technology itself." He finds that conflict exists between "democratic techniques" (small-scale methods of production involving "small-scale human relationships" which permit a great deal of personal autonomy) and "authoritarian techniques" (centralized political control over large-scale units that includes forms of compulsion and physical coercion for the performance of technical tasks).[28]

If individualism can be defined as having a belief system and community defined as having belief systems in synchronization with others, then, technology becomes a tool for putting belief systems out of synchronization. Many social problems are the result, then, of the artifacts of society technology. More explicitly, the defects in modern society attributable to technology are [29]

(1) that change in our society is dominated by technology;
(2) that no institutions exist in our society to aggressively explore the general implications of any specific technology;
(3) that competitive pressures in politics and economics do not guarantee that societally significant implications will be adequately explored;
(4) that the present promotional process is operationally biased away from a pervasive consideration of the general implications;
(5) that with this process, the neglected implications of a technology may, in fact, be socially determinative; and
(6) that in a society increasingly circumscribed by diminshing resources, space, continuity and privacy, this situation constitutes a serious defect.

At present, society assesses technological change "based on the market criteria of private innovators or on the fragmentary and diverse judgments peculiar to the special interests of governmental agencies and professional groups. The point of view is narrow, unitary, and self-interested; and the time interval of concern is internally legislated, reflecting the specific time scales natural to each institution's function."[30]

The presently narrow basis of assessment of technology ignores "many substantive social interactions along with the portion of society involved by those interactions . . . the technology is implemented and is marketed at what is usually a socially fictitious value."[31] The GNP, for example, is a "value" (as the late Robert Kennedy observed) that takes into account "neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our duty to our country. . . . it measures everything, in

short, except what makes life worthwhile." In sum, some technologies may commit us to what are essentially "Faustian bargains."

Modern technology has introduced a qualitative difference in the way man perceives the viability of the species. "Controlling technology in all its ramifications may be the supreme test of our species' adulthood."[32] One vision was expressed by Franklin Wallick of the UAW:[33]

> It is easy to resign ourselves to the biblical torture of Armageddon and assume that things will get worse and never get better until some cataclysmic downfall of wastern technology. Men and women will die off, employers will enter the workplace with gas masks and ear muffs, workers unlucky enough to escape will be sentenced to industrial prisons, and those who survive with superior genes will be allowed to breed a new generation sturdy enough to resist the technological horrors of the future. Such a fate is not impossible if the working population is driven headlong to deeper industrial perils. Armageddon at the workplace is, indeed, man's destiny if neglect is not halted and replaced with vigilance.

D. Energy Technology

How does this discussion relate to energy policy? Technology is, of course, based on the use of energy (and increasingly in the form of electrical energy); moreover, energy technologies themselves affect the culture. The process of how power plants are sited, whether in Minnesota or elsewhere, can affect people's values. Power plant siting contains dissimilar but interacting elements (e.g., the second law of thermodynamics, money, city culture, transportation, asthetics, property rights, physical comfort, greed, private interests, the general welfare, the physical and biological milieu, etc.) and a wide variety of people who take an interest in the location of the plants. The various interests that aggregate around siting decisions are often insufficiently expressed. The points of common purpose and conflict are not always revealed. The relative weight assigned to each interest is not uniform nor is it often known. Consequently, decisions may be made under conditions that are momentarily expedient; they may be influenced by some ill-defined sense of general welfare; or they may be based upon insufficiently informed judgments. In addition, decisions may contain concealed consequences relating to the values of many people including those values involving

land use, property rights, and civil rights.[34] In short, energy technologies exhibit the characteristics of technology generally.

The Nuclear Regulatory Commission (NRC) in its 1977 report on Improving Regulatory Effectiveness in Federal/State Siting Actions has identified several major defects in the siting process. The Commission states that (1) "the long-term plans of utilities are often not exposed to public review and comment until the last possible moment;" (2) "Need-for-power issues are regularly litigated . . . long after heavy financial commitments are made to individual projects and long after states have passed judgment on the need-for-power;" and (3) "the general public--the rate payers and taxpayers--feel uncomfortable with the present process and generally lack confidence in it. . . . They want a greater degree of involvement, more information and greater assurances that their interests are being served."[35]

Policies concerning technology, particularly energy technology, have frequently been the source of political conflict. Nuclear energy in particular is a visible target, and many of the dramatic implications of policies regarding this issue (diversion, weapons, waste storage, "melt-downs", etc.) increase the public's general wariness of technology. The social and political impacts of energy technologies are so great that technical information in and of itself is insufficient to influence public opinion. For example, Sweden's "study circles" (public information seminars held by the government) not only did not change the public's mind, but eventually led to a change in government. "The Swedish experience implies that the usual procedures for decisionmaking, in which fully formed plans are thrust upon the public as if they were noncontroversial technical decisions, may be inappropriate in this sensitive area. A participatory process that realistically confronts the difficult choices involved in energy policy would not avoid conflict, but might bring better focus to the issues of concern to the public, and thereby reduce the hostility that often prevails in nuclear debates."[36]

Since the 1973-1974 Arab oil embargo, the tern "energy crisis" has been repeated time and time again by the energy industry and the government to indicate that there is a shortage of energy. By definition, there can be no shortage of energy under the law of conservation of matter and energy, which states that matter and energy cannot be destroyed--they may only change form. Consequently, the term "energy crisis" is a euphemism for a shortage of cheap, convenient, and readily accessible supply of "usable" energy, i.e., it is a term for the rising costs to feed technologies (the energy slaves of our culture). Further, the term suggests a direction toward a vision of Ferkess' "technological man" in a "technological society." This vision presents man as perpetually dependent on slaves (either human or machines) to do his work. Such a vision is inconsistent with the obvious inequity of the system and impotence of the people dependent upon these slaves. The "energy crisis" focuses attention on the scarcity of fuel for these slaves, but does not address "whether free men need them."[37] The emergence of man as the dominant life form of his physical environment and the shift in his role from a minor member of natural systems to an almost exclusive occupant of modern industrial cultures is really a story in the change of man's power support. These changes follow within tight limits of power availability and are not adequately understood. Perhaps it is the images within our culture that fail to permit us to ask the correct, leading questions about energy?[38]

E. Technological Decision Making

It has long been held that the public at large strongly supports science and technology. Recently, many scientists have stated that the public is becoming hostile and alienated by technology. A recent study by Todd La Porte and Daniel Metlay has shown that the public at large has mixed feelings regarding technology. This study indicates that people who react disfavorably to technology (this is not the same as being anti-technology or having a "luddite mentality") are those people who are more aware than others of the social consequences that technology may have

and of the way these consequences may affect their values. The evidence available about the public's attitude toward technology suggests:[39]

> (i) The public makes a distinction in their evaluations of the outcomes of scientific work and technological work; (ii) the public's reaction to the impact of technology upon society is one of wariness and some skepticism; (iii) the public applies a rather wide range of sometimes contradictory values to its evaluation of technology; (iv) the public has a distrust of the institutions associated with decision-making in technical policy areas; and (v) a clear element of political ideology is present in the evaluations of technology made by an important segment of the public.

The central theme of this section has been the belief that technical development needs guidance and control. "If we are to maintain and strengthen our legal and social system, in a free society, a way must be devised to control the process before it overpowers us."[40] Many circumstances have brought about this situation in which potential deleterious conflict of unrestrained technological development far outweighs the possible benefits afforded by the technology. The litany of individual events is beyond the scope of this paper. Yet, it is clear that our society must exercise control over the direction and pace of technology or risk great injury to our species. On the conditions imposed by a technological and technocratic society, there is little hope or meaning in the future unless one goes with the "plans" of accelerated technological progress. For those who have "thrown off the myth of the machine, the next move is ours."[41]

Two very complex problems arise when the control of technology is advocated. Control by whom? Control in accordance with what values? The remainder of this paper will attempt to answer these two questions. There are three generally accepted categories of technological control: (1) the doctrine of moral responsibility; (2) institutional control by government; and (3) the doctrine of democratic control. One should note that the present system (control by special interests and entrepeneurs) is the doctrine of "laissez faire" and "caveat emptor," which, by definition, means no social control at all.

1. Doctrine of Moral Responsibility

The doctrine of moral responsibility provides that a scientist or engineer has the duty to "develop knowledge which they perceive to be good and to act to prevent the development of fields of knowledge which they believe will be harmful independently of any political or social institution within the culture."[42] In short, it requires scientists and engineers to take a "Hippocratic oath" and to forswear participation in technical developments which would reduce the social welfare. The principal argument for the doctrine of moral responsibility is that scientists and engineers who discover or develop new areas of knowledge have a deeper understanding of the moral and political consequences of this knowledge than does the general public. They are therefore in a position which requires them to make judgments to prevent any harmful consequences that they foresee.

There are a number of problems with this doctrine and its compatibility with a democratic society. At best, the doctrine of moral responsibility is paternalistic. It could develop a technological elite who would determine what is good for "the people." Pascal described tyranny as the extension of authority beyond competence.[4] Some argue that the "key problem that we have to deal with is the paternalism of expertise within a socioeconomic system which is so organized that it is inextricably beholden to expertise. And, moreover, to an expertise which has learned a thousand ways to manipulate our acquiescence with an imperceptible sublety."[44] Scientists and engineers who act and become advocates for technologies would do so on the basis of their moral values, and not necessarily on the basis of community values. In sum, that scientists should be endowed with the authority to assume full moral responsibility for the social impact of science and engineering is totally incompatible with any notion of a democratic society.

Asking a scientist to take responsibility for technology, assuming that he would even wish to do so, and further assuming he has no political or economic interest in the outcome, has certain contradictions in it. On one hand, the scientist or engineer would receive a signal from society that says: "If you don't do as we ask, we wil

condemn you for not acting like a responsible citizen." On the other hand, our traditional laissez faire signal would be: "If you do behave as we ask, we will secretly condemn you as a simpleton who can be shamed into standing aside while the rest of us exploit the commons." If we give a man control and ask him not to exploit a commons "in the name of conscience," 'What are we saying to him? What does he hear?' "[45]

A related ethical problem is the degree to which a scientist or engineer can influence the application of the power of science and technology. "The customary view is that the scientist and the fruits of his labor are morally neutral, impartial and objective."[46] Therefore, scientists and engineers in the practice of their work are amoral. How can you ask a man to make moral decisions about work he considers amoral? Consequently, the scientist and engineer are therefore limited by their own expertise. Harold Laski noted:[47]

> It is one thing to urge the need for expert consultation at every stage in making policy; it is another thing, and a very different thing to insist that the expert's judgment must be final. For special knowledge and the highly trained mind produce their own limitations which, in the realm of statesmanship, are of decisive importance. Expertise, it may be argued, sacrifices the insight of common sense to intensity of experience. It breeds an inability to accept new views from the very depth of its pre-occupation with its own conclusions. It too often fails to see round its subject. It sees results out of perspective by making them the center of relevance to which all other results must be related. Too often, also, it lacks humility; and this breeds in its possessors a failure in proportion which makes them fail to see the obvious which is before their very noses. It has also, a certain caste-spirit about it, so that experts tend to neglect all evidence which does not come from those who belong to their own ranks. Above all, perhaps, and this most urgently where human problems are concerned, the expert fails to see that every judgment he makes not purely factual in nature brings with it a scheme of values which has no special validity about it. He tends to confuse the importance of his facts with the importance of what he proposes to do about them.

In sum, scientists and engineers "have a special competence only in areas of their technical expertise and are no better qualified than other citizens in making political and moral choices. . . . Further, the more expertise and experience individual scientists have in a given area, the more likely they are to have prejudgments and conflicts of interest relating to even strictly technical questions in that area."[48]

Perhaps the reason that scientists and engineers have not become an important political force in this country or elsewhere is because of their own limitations.

2. Institutional Control by Government

A second category of technological control is that of institutional control by government with participation by the regulated interest and their technical experts. Government decisionmaking on scientific and technological matters involves: (1) promoting a technology by the allocation of financial, human, and material resources, and (2) by regulation, which, in theory at least, involves the control of social costs and risks to society, individuals, and government. Regulatory control involves intervention on behalf of society after the technology is introduced. This is in contrast to the promotional aspect of decisionmaking, which usually assumes there are minimal side effects and that it is in the public interest to develop a technology. This promotional aspect cannot be overlooked. Harold Green has noted that government expenditures account for two-thirds of total outlays for research and development in the United States.[49] Since public funds are involved, it is assumed that they are spent to commercialize technologies which are consistent with society's values and interests.

Yet government, particularly over the last ten or fifteen years, has established within the executive branch numerous agencies and programs to deal with the social ills resulting from technology, that is developed both by government and industry. These agencies are staffed with experts (scientists, engineers, economists, lawyers, doctors, and so forth) who exercise regulatory responsibility in protecting the health, natural resources, environment, communications, movement of goods and services, energy, etc., affecting people. Further, government has allocated increased funds to research groups and universities to investigate the side effects of technology.

Unfortunately, there are a number of administrative defects that cripple effective government regulation. Foremost among these defects is that of delay. According to the Landis Report: Report on Regulating Agencies to the President-Elect (1960), "The 'Achilles' heel' of the regulatory process is delay."[50] Another characteristic of the

regulatory process is that of inflexibility. "Indeed, the regulatory process may have become frozen in the last half century while the regulated industries grew and developed around the commissions."[51] A third defect of the regulatory process is lack of information, due to inadequate staff and, since industry often has the only reliable pertinent information, the reluctance of industry to release data which may be used in regulatory actions that affect them.[52] A fourth defect in agency regulation is lack of agency expertise. The Landis Report concluded that many agencies have suffered "a deterioration in quality at both the top level and throughout the staff."[53] A fifth defect in government regulation is that of politics. Most agencies operate in a decidedly political context. Since agency heads are appointed by the President or Governor and confirmed by the legislative branch, they are often "cleared" by the relevant industry. This can often lessen the vigor of a political appointee.

President Nixon's Advisory Council on Executive Reorganization (Ash Council Report) suggested that the inherent problem with regulatory efficency of independent agencies was their lack of accountability to the President.[54] However, others disagree. Simon Lazarus and Joseph Onek concluded that "the central problem with all regulatory agencies is their unresponsiveness to public concerns, and not their lack of accountability to the highest levels of the federal government," and concluded:[55]

> The federal bureaucracy is, with dismaying frequency, overly deferential to the business interests they are obligated to control. Too often its administrators refuse to allow citizens to participate in agency proceedings, and zealously guard from public view information vital to the economic interests of consumers or to the health and safety of all citizens. Thus we assert that the Ash Council should not have limited the scope of its inquiry to independent agencies, but rather it should have reviewed the operation of all federal regulatory activities. Moreover, we believe that the Council should have been concerned primarily with proposing methods for insuring agency responsiveness to nonindustry interests rather than increasing the accountability of agencies to the President.

Another defect in the regulatory process is that of business pressure. As the Landis Report noted, the "daily machine-gun-like impact on both the agency and its staff" can often take the form of ex parte communication between industry lobbyists and commissioners. "Those who make policy and regulate must necessarily have frequent

contact with the industry in order to be well informed. Under the present system, the possibility of improper influence or at least of charges of such influence is always present."[56] These defects of process often result in errors of policy. Consequently, "governments, apparently, have never been able to make up their minds as to which they dislike more, competition or monopoly."[57] On industry's part "the operative belief seems to be that if enough studies are done, if enough documentation is presented, somehow all will be well and the project can proceed as originally planned. It is a belief that implies a choice, only one choice. . . ." their choice.[58]

Permitting government to determine what is "good" and "bad" about technology is the same as letting government decide what is good and bad by definition. Government is a political process, which by any democratic definition, is required to deal equitably with all of those who are affected by technological change. The people who make these decisions about technology are usually not elected, are not directly affected by their decisions, and are generally unaccountable for their actions. Further, to expect government intervention in the regulation of technology much of which it promotes, is to ignore the central role technology plays in corporate life and the central role that corporations play in governmental decisions. These multi-national, multi-billion dollar artificial entities, which profit by controlling the development and deployment of technology, will not easily give up this control. These "entities" also dominate political life through advertising and promotional campaigns, their financing of political activities, their near monopoly of scientific and technical expertise, and their influence in financial and job markets.[59] Truly responsive regulation of technical change by government cannot occur until fundamental changes in our political system eliminate these problems.

The ultimate impact of business pressure on agencies cannot be understated. One of the most common and longstanding criticisms of government on both the state and federal level is that it is overly responsive to the industries it regulates to the point of being dominated or "captured" by them. Researchers in public administration

have argued that, as the reform coalition which advocated the initial regulation begins to dissolve, the newly created agencies are left to face politically powerful and highly organized industries. The agency gradually loses its initial vigor and begins to adopt the perspective of the regulated industry.[60] Eighty-five years ago, Attorney General Richard Olney predicted that regulatory agencies would prove a blessing to business interests. In calming the fears of the president of the Burlington Railroad, he said of the ICC: "The Commission is or can be made of great use to the railroads. It satisfies the public clamor for supervision of the railroads, at the same time that the supervision is almost entirely nominal. Furthermore, the older such a commission gets to be, the more inclined it will be to take the business and railroad view of things."[61]

One does not have to subscribe to the theory of agency capture to explain the tendency toward industry domination. Regulatory commissions are made up of people and respond like most everyone else to the influences exerted upon them. Unfortunately, most of this influence comes from the regulated industry.[62] A second reason why agencies may adopt an industry orientation in their regulatory practices is because of their dependence upon the regulated parties for political support. Many independent agencies cannot rely upon the executive to protect them from legislative attack and must therefore develop their own constituency capable of generating support in the legislative branch.[63] Because the regulated industry often serves this function, the agency naturally adopts a sympathetic industry view.[64]

Two other aspects of the administrative process combine to form a third reason why agencies pay deference to industry positions. First, the mandate given to the agency is so broad that it is frequently not clear what the public interest is in a given context. Second, regulated industries aggregate considerable resources and have frequent organizational contact with agencies via trade associations and lobby groups which permit them to present their views clearly and constantly. Consequently, agencies that regulate without a clear view of the public interest will tend to adopt the view presented in the clearest and most persuasive fashion.[65]

The courts have recognized that the agencies cannot always be relied upon to regulate in the public interest without the issue being presented before the affected public. As a federal appeals court judge remarked in 1970 in Moss v. CAB: "[One must face] the recurring question which has plagued public regulation of industry; whether the regulatory agency is unduly oriented toward the interests of the industry it is designed to regulate, rather than the public interest it is supposed to protect."[66] Four years earlier in United Church of Christ v. FCC Justice Burger ruled:[67]

> The theory that the Commission can always effectively represent the listener interests in a renewal proceeding without the aid and participation of legitimate listener representatives fulfilling the role of private attorneys general is one of those assumptions we collectively try to work with so long as they are reasonably adequate. When it becomes clear, as it does to us now, that it is no longer a valid assumption which stands up under the realities of actual experience, neither we nor the Commission can continue to rely on it.

And in Calvert Cliffs' Co-ordinating Conference v. A.E.C. (1971), Justice Wright noted:[68]

> In recent years, the courts have become increasingly strict in requiring that federal agencies live up to their mandates to consider the public interest. They have become increasingly impatient with agencies which attempt to avoid or dilute their statutorily imposed role as protector of public interest values beyond the narrow concerns of industries being regulated.

Another problem with government regulation of technical change is that of secrecy. As sociologist Max Weber noted: "Every bureaucracy seeks to increase the superiority of the professionally informed by keeping their knowledge and intentions secret."[69] Information concerning technologies in the United States can be hidden from the public in a variety of ways. The bureaucracy can classify the information secret; industry can declare it proprietary; committees of Congress and legislatures can meet in executive session; or it can be hidden in obscurity in many ways. Further, what discussion there is can be rendered meaningless by the use of technical jargon which few understand.[70,71] A history of the Freedom of Information Act, as amended (5 U.S.C. § 552 et seq.) shows that in 1966 not one federal agency supported the Act. The 1974 amendments were only supported by one agency and passed only after Congress overrode the President's veto.

Information in many instances is a key element in the regulatory assessment process. The development of the "Burger Inquiry methodology" proves "that the group that controls the information, controls all else, and that the control of information should not rest exclusively with experts. Indeed it demonstrates that the obligation of the expert in industry and government is to expose, at a very early stage, the whole range of issues to the expert scrutiny of all citizens. The citizens' input has now been shown to be essential to an assessment process."[72]

In addition, a number of other problems with agency regulation exist. First, in some contexts, hearings only serve to legitimize decisions already made by agency staff.[73] Second, the public is generally unaware of the content and significance of formal agency proceedings and no one except the parties directly affected is aware of the content and significance of informal proceedings, which are usually conducted in private.[74] In some instances, the facilities of the regulatory agencies are inadequate to monitor the activities of the regulated interests.[75] Jurisdictional conflicts among the agencies make it difficult to implement articulated policies such as those embodied in the National Environmental Policy Act (NEPA). A fifth problem is that restructuring, which might reduce the significance of some of these problems, rarely occurs because some members of Congress, who exert a great deal of influence over the activities of some agencies, are reluctant to give up their influence.[76] Sixth, agencies are often reluctant to make known to the legislative branch their organizational problems.[77] Finally, the standard of judicial review of agency action is thought by many legal scholars to be to narrow both in terms of findings of fact and in terms of unwillingness to review action committed to agency discretion.[78]

In sum, "the agencies are too much under the influence of regulated interests and too insulated from judicial scrutiny; there is little movement in Congress toward reforming them; and certain interests shared by large segments of the public are inadequately represented before them. Regardless of the validity of any of these criticisms, the lack of public confidence they suggest may itself seriously impair

the efficacy of the administrative process."[79] Thus, government decisionmaking offers little improvement over the doctrine of moral responsibility. Government regulators are usually experts who exercise no more moral judgment than any other citizen when making decisions. Further, many government agencies are apt to be captured by the very groups that use the technology that the agency seeks to regulate. Perhaps the reason that people are becoming increasingly disenchanted with government regulation is not that they disagree with the basic purpose of the regulations, but that the regulatory process is wrought with secrecy, conflicts of interest, and elitist attitudes on the part of the regulators who alone can determine what is good for "the people."

3. Doctrine of Democratic Control

Another category of technological control is that of the doctrine of democratic control. The essential feature of this doctrine is that "decisions concerning which technology is good or evil are decided by the democratic process that gives each person one vote."[80] The idea is to provide equal opportunity for citizens to participate and affect government decisions along with the regulated interest and their experts. Specifically, these decisions include those involving technology and value judgments; those that involve extrapolations from known scientific facts or currently available technology; and those that are of sufficient political or moral importance so that divergences of opinion are likely to occur. The need for democratic control rests on several premises. First, since government support for science and technology requires decisions about the allocation of resources (fiscal, material, and human) and different interests are competing for these resources, then any decision must make optimal use of its resources. Second, since science and technology have a wide range of effects on society (adverse effects on the environment, human health, and human values), any decision regarding the promotion of science or technology must either be accompanied by the development of appropriate programs to control adverse effects, if possible, or extend veto power over the development or deployment of that technology. Finally since support for science and technology is predicated on the

achievement of certain results for the betterment of society, then any decision must assure that the science and technology achieves the desired results.[81]

The key to the doctrine of democratic control is that of public participation. The greater the amount of information and the more diverse the influences to which a decision maker is exposed, the more likely a good decision will be made. "The wise use of technology, insofar as it is attainable in a democratic society, will better derive decisions based upon pluralistic inputs and open adversarial confrontations, rather than on unilateral assessments of judgments of monolithic institutions. In the social evaluation of technologies, pluralistic controversy complements rather than contradicts scientific objectivity."[82] "There is never any lack of articulation of the benefits of a technology. Every technology has powerful vested interests--private and frequently governmental and political--which can be relied upon to press the benefits to the technological assessors. The problem is that the negative factors and risks are never fully or even adequately articulated."[83] Public participation in adversarial environments can "explicitly address the social defect of a general promotional bias toward technology."[84]

The demand for greater public participation in governmental decisionmaking rests on the belief that government rarely responds to interests not represented in the process. As noted earlier, an administrative agency is usually exposed only to the views of its staff and those who have a clear financial stake in the outcome. The recent demand by individuals and groups who wish to become involved in administrative processes in order to identify interests that deserve protection and to provide relevant evidence and recommendations for appropriate action, presents an opportunity to close the gap between the agencies and their ultimate constituents.[85] "No matter which route is taken, citizen participation is essential. Citizen interest must be connected to the decisionmaking process on a continuous basis so that it becomes a lobby or a pressure group to be taken into account when decisions are made. Citizens must develop countervailing power at all levels of government."[86]

The purpose of allowing parties to intervene in legal actions is to prevent a "failure of justice."[87] Therefore, it is argued that broadened public participation protects the integrity of the decisionmaking process. It is often contended, as noted earlier, that agencies are charged with representing the "public interest." How, then, can the views of self-styled citizen groups represent the "public interest?" The "public interest" is not a monolith; it is the balancing of many interests. Public interest groups simply present unrepresented interests and "should be viewed as a potential aid rather than a hindrance to agency operations."[88] The use of the term "public interest group" is not meant to imply a superior moral position. Rather, this label simply distinguishes it from participation by private parties.[89] The courts have recognized that "experience demonstrates that consumers are generally among the best vindicators of the public interest."[90] Not the agencies themselves, but the consumers, i.e., "those who by their activities and conducts have exhibited a special interest," must be able to participate "to ensure that the [agency] will adequately represent the public interest. . . ."[91]

Any institution which assesses technology, assuming it is free of promotional duties, must continually be subjected to external, independent criticism if it is to retain its detachment and openness.[92] In addition, there is a value judgment inherent within democratic societies that "decisions affecting the course of technology and hence the course of history require the broadest possible public participation and should not, even if they could, be delegated to narrow elites, whether scientific or political."[93] Since the central objective of any decision regarding the implementation of a technology should be to ensure that the whole host of social consequences and rewards are considered, the crucial key in deciding who will bear the costs and who will reap the benefits must be based upon inputs from all interests.

Many argue that the public is incapable of making intelligent decisions about complex technological issues. "To assert that scientific judgments are necessary is to assume that politicians and other citizens are unable to weigh the claims of

experts and judge for themselves. The notion that a scientific background is required is difficult to reconcile, however, with the evidence of the recent debates such as those over the ABM and the SST. To be sure, the subjects of the debates are complex technological systems. But it is not necessary to master the detailed workings of these systems in order to judge even the technical points at issue if one has the opportunity to hear articulate advocates present their cases and respond to opposing arguments. A careful reading of the public records of the ABM and SST debates indicates that there is rarely significant disagreement over the 'scientific facts'."[94]

There are many opportunities to participate in the decisionmaking process by objection.[95] Such participation can take the form of militancy or delay tactics. However, constructive participation by all interested parties can be effective in contributing to wise decisions. The Burger Inquiry on the Mackenzie Valley natural gas pipeline in northwest Canada is a classic "example of participatory technology, a way of assessing a superstar technology while still maintaining a human perspective." "The Inquiry has shown that it is possible to acquire and disseminate information about highly technological projects and that it is possible to do so while maintaining a human balance, a concern for things nontechnological. It has shown how the vital role of the technological expert can be blended with the input of all people who are affected by a venture, directly or indirectly."[96]

If one can define democracy as "mutual coercion, mutually agreed upon by the majority of the people affected," then "social arrangements that produce responsibility [for making decisions about technology] are arrangements that create coercion. To say that we mutually agree to coercion is not to say that we are required to enjoy it, or even pretend that we enjoy it. Who enjoys taxes? . . . but we accept compulsory taxes because we recognize that voluntary taxes would favor the conscienceless. We institute and . . . support taxes and other coercive devices to escape the horror of the commons."[97] Every new fence around the commons involves an infringement upon somebody's personal liberty. Hegel said: "Freedom is the recognition of

necessity."[98] If so, then the tragedy of the commons can only be averted when people see the necessity of mutual coercion. To be locked into the logic of commons can only bring universal ruin.

A number of conditions necessary for the democratic control of technology are (1) that the public have access to the information necessary to make independent judgments on technical policy issues; (2) that planning no longer be made by alliances of bureaucrats in agencies, technocrats in industry and in government laboratories, and their political patrons, but be made in the open with a full airing of the risks as well as the benefits; (3) that public participation mechanisms be established so that the public can participate as an equal with fair and independent resources at their disposal and of their choice; (4) that institutions which make the final decisions not have conflicts of interest by promoting a technology on one hand and regulating the technology on the other; and (5) that the decisions be made openly by individuals accountable to the public. These conditions will not ensure that the issues will be straightforward or simple, but that the process is democratic. In short, "a serious effort to bring about more democratic control of technology will have to go beyond mechanisms to promote public understanding; it will have to deal directly with the nature of the decisionmaking process per se, in particular with the influence and accountability of the technology policy alliances."[99]

In 1977, a series of workshops was held in Wisconsin on power plant siting. The major finding of the workshops was "that participants appeared to be people oriented in their concerns."[100] The problem with which the doctrine of democratic control grapples is not which particular subset of values is represented, but whether the realm of values as a whole is represented. Just as the workshop participants focused on human concerns, so too must the legal process address human concerns. "It is not so much that the analytical and legal tools available to us inherently skewed policy choices toward some kinds of values and away from others, . . . it was that those tools however well designed for the relatively technical task of finding suitable

measures for achieving agreed upon ends, seem inadequate to the task of explicitly addressing controverted issues of value at all. Indeed, they were not designed to deal with such conflicts."[101] The doctrine of democratic control with its underlying foundation of public participation is the only way that human concerns and human values can truly be reflected in legal processes.

F. Benefits of Democratic Control of Technology

Public participation in the formulation of technological policies and in the introduction of a specific technology has many benefits. It improves the decision-making process itself, ensures political accountability of the agency involved, and provides for a better and more informed citizenry. In addition, it enhances public trust.

The presentation of alternative viewpoints in a regulatory proceeding by people other than those who are promoting or using a technology may help to check the tendency toward industry orientation by agencies and thereby improve the decision-making process in four ways. First, it provides decision makers with additional ideas and information on which to base decisions. Second, public participation can promote agency autonomy by giving the agency a broader image of its role and alternative bases of political support. Third, the inclusion of the public in the process may encourage the regulated parties to accommodate the interests of additional groups. Finally, the presentation of alternative viewpoints may assist in "building a record" that a court may use in reversing an agency decision, and the agency, aware of the possibility of reversal, may give the new viewpoints fair consideration.[102,103]

Agencies not only apply the law, but make law through regulation as surrogates for the legislative branch. Consequently, public participation in regulatory proceedings is useful in terms of political accountability. This is true for two reasons. First, citizen participation is useful because agencies act as surrogates for Congress or the legislature. Because agency policymakers are unelected, citizen

access to these policymakers is even more important than it is to the legislative branch. Since they are not up for public review at periodic intervals, unelected policymakers can be affected by those they regulate, easier than elected policymakers unless they know they are being watched. Second, administrators can be faithful to the underlying purpose of regulation if an effective consumer presence is provided. Some regulatory laws are a manifestation of the conflict among dispersed consumer and other public interests and concentrated economic power. Effective public participation is necessary to counteract this concentrated power in order to arrive at a balanced decision.[104]

Public participation provides for a better and more informed citizenry in a variety of ways. First, problems will be scaled down to "life size" so that people will end up dealing with specific problems rather than the whole "technological milieu." Second, this control allows parties, who at present are separated by their compartments of specialized expertise or concerns, a chance to engage in a common activity which will result in a decision. It enables a specific way for the "man on the street" to improve his understanding of society by presenting him with the opportunity to make choices (tradeoffs) in a public process in which substantial evidence is considered. By offering him this opportunity to be an equal participant in the process, public participation provides the citizen with a sense that he controls the way technology affects his life. Finally, as particular decisions accumulate toward a final resolution, he can perceive how a technological world and a democratic society fit together.[105]

The replenishment of democratic techniques in a centralized, authoritarian society has clear advantages. These advantages can be preserved "only if we cut the whole system back to a point at which it will permit human alternatives, human interventions, and human destinations for entirely different purposes from those of the system itself. At the present juncture, if democracy did not exist, we would have to invent it, in order to save and recultivate the spirit of man."[106]

G. Public Participation in Energy Policy Implementation.

It is important to recognize at this juncture an important point about the American system of government. The American system of government is not a pure democracy, nor is it a pure republic. As may be seen by examining Chapter two (particularly section 2.6) the American system of government is a mixture of both a republic and a democracy.[106A] The democracy is provided not merely in the election of representatives, but also in the rights and opportunities to effectively participate in decisions themselves. This is true for two basic reasons. First, since the post civil war era, the legislative branch of government has delegated its responsibility for making law in many areas to the executive branch, and not to the governor either, but to unelected, appointed commissioners, directors, and department heads. Second, the United States Supreme Court has interpreted the fifth and fourteenth amendments to the U.S. Constitution to require that decisions made by department heads, commissioners, and directors provide for "due process" of law. The interpretations of due process and legislatively enacted process requirements and procedures both mandate effective public participation in agency decisionmaking.

In Minnesota, the legislature has empowered the director of the MEA, the board of the MEQB, the commissioners of the PSC, and the department heads of various agencies to make law (through rule promulgation), to interpret law (through contested case activities), and generally to make decisions about energy policy. Such decisions include the determination of the need for new energy facilities, which includes the size, type, and timing of the facilities; the location of these facilities, the permits necessary to operate these facilities; the rate structure necessary to pay for these facilities; as well as many other decisions. The legislature does not make these decisions, nor does the governor. Unelected officials make these decisions. The legislature enacts the basic process for making these decisions, i.e., the enabling legislation, but they do not make the decisions themselves.

In addition to enacting the enabling legislation, the Minnesota Legislature also

enacted procedural or process laws which govern the decision making process of the agencies. The most important of these include the Administrative Procedures Act, the Minnesota Environmental Rights Act, and the Minnesota Environmental Policy Act. The thrust of these procedural or process laws is to spell out the specifics of the due process requirements, mandated by the fifth and fourteenth amendments to the U.S. Constitution. As reviewed in Chapter Two, Section 2.6, these laws and the enabling legislation of the energy statutes mandate effective public participation in energy policy decision making. Consequently it is no longer reasonable to rely on just the electoral process for resolving the conflict or balancing the values inherent in energy policy decisions.

It is recognizable to most everyone that there are basic divisions in our society regarding energy. These divisions involve disagreement about the type of future people want, about the type of society we wish to create, about the ability of our society to attain the different visions, and about the risks, benefits, and costs from obtaining and using energy. There are numerous subjects over which the conflict wages. Questions are often posed about the morality of nuclear power, the continued legitimacy of perpetual economic growth, the distribution of wealth, the balance between human wants and environmental degradation, the preservation of our species, our lives, our health, and our safety. In short, the divisions are about conflicts in values. If these conflicting value systems have no potential for consensus on any issue, then such conflicts can threaten the survival of our social-political institutions.

In the energy sector, the major basis for unity among conflicting value systems is the basis upon which decisions are made and expressed. "The social stability inherent in a "constitutional" political system is that the decision process is agreed upon prior to the knowledge of the specific outcome of that process. All parties have a stake in preserving a process which they deem fair. In this country, the restraing of the majority when its views conflict with deeply held convictions of minorities is the key to the constitutional system." The alternative is the use

of force to guarantee what is necessary to maintain energy expansionism (if, indeed, that is the majority view). "In political terms, this means that the energy policies must be compatible with the minimum requirements....to obtain some source of energy.. ..even though this means that disproportionate attention will be paid to minority's preferences and extra expense may be necessary to meet them."[106C]

Ultimately, energy policy will be determined politically, both through the electoral process and administrative decision making. Throughout this there will be conflict and the democratic processes must be designed to facilitate fair and equitable decisions both in the formation of energy policy and its implementation, always remembering that "man's capacity for justice makes democracy possible; but man's inclination to injustice makes democracy necessary."[106D]

Effective public participation has five key components. First, public participation is an organized activity designed as part of the decision making program, with the concept of design being basic. Second, the program must be designed for participation by people and groups of people who are likely to benefit or otherwise be affected by a decision to be made by a public authority. Third, public participation must have a direct and well-defined role in controlling or influencing decision making processes. This means that in some cases the entire decision is left in the hands of the participants. In other instances it may be in the hands of several groups of people, including politicians, civil servants, experts, as well as public participants. Fourth, public participation involves an interaction between the public participants, the civil servants, and the experts in a give-and-take, adversarial process. Finally, public participation in decision making is a method of achieving intelligent discussion of issues, resolution of differences and/or disagreement based on rationality and principal with respect for differing opinions and without fear and suspicion.[106E]

This chapter, indeed the entire report, is designed to analyze process or procedural laws to determine if public participation is truly effective. The failure to provide fair, effective roles for public participation will perpetuate the existing conflict over energy policy, increase the alienation of minority viewpoints in society and could potentially result in the destruction or severe alteration of our social-political institutions.

It is possible that this approach toward increased democratic control of technology via public participation may add to the costs and inefficiencies of government in the short run. However, enhanced public participation also has its value in increased public confidence in government. If the public interest is truly defined through process, then it is time to make "an intellectual noise in a managerial society."

3.2 Improving Public Participation Mechanisms

The United States was founded on principles of limited government authority and formal public accountability. These principles are the roots of American political culture and are the premises upon which the recent public demand for greater citizen involvement in government decisionmaking is based. In essence, the demand for public participation is just the latest chapter in the continuing saga of popular control over government decisionmaking. The fundamental objectives of this democracy have, for more than two centuries, remained constant. These objectives are, first, that public policies correspond with the needs and preferences of the affected citizens, and, second, that government be prevented from overstepping its bounds of limited authority.

"Responsiveness to citizen desires and respect for citizen rights constitute the essential underpinnings of consensual democracy. If public policy consistently diverges from the direction of public preferences, or if government persistently impinges upon basic rights and liberties, the motivation for voluntary allegiance and compliance is eroded."[107] In recent times the background and significance of citizens' demands for involvement in government decisionmaking has been ignored or forgotten. Objectives of citizen participation mechanisms are usually addressed by agency officials in terms of "mobilizing a constituency to implement the plan," "enlarging public support for the agency," or "improving the efficiency of information gathering." These goals define citizen involvement in terms of the agencies' objectives, priorities and

functions. They ignore the primary purpose of citizen participation, i.e., to increase the responsiveness and accountability of government to citizens affected by public decisions.

It is generally recognized that bureaucratic and administrative power has grown extremely fast both in terms of the scope of government undertakings as well as in government's ability to implement its discretion in the last 50 years. The expansion of opportunities for direct citizen action is a necessary and appropriate adaptation of democratic practice to modern conditions. The Administrative Procedures Act of 1946 was the first federal law to embody the principles of due process established under the fifth and fourteenth amendments to the U.S. Constitution. This Act was the first law to provide general participation rights and opportunities to the public.[108] The Act required that agencies meet certain minimum standards of openness and fair play and gave the citizens the right of judicial review if the agencies failed to comply. This Act in essence broke the ground for enforcing public access and agency accountability. By the early 1960s most states had adopted a similar law.

As noted earlier, many studies on the role of public participation in regulatory activities agree that public participation is essential if regulatory agencies are to fulfill effectively their mandate to regulate in the public interest. "Increased public participation and input can provide regulators with a great range of ideas and information, broaden the active constituency of the agency, and place greater emphasis on public interest concerns and viewpoints. A lack of such public participation, on the other hand, requires regulators to rely too heavily on input from the industry they are charged with regulating."[109] The National Academy of Public Administration held a workshop in 1976 on public participation in energy-related decisionmaking, with emphasis on the nuclear regulatory processes. The following recommendations were made by the workshop participants:[110]

> Public participation has been a fundamental concept of democratic government since the beginning, but in recent years the idea has taken new forms and gained new force. These changes are not, nor should they

be, transitory. Governmental processes at all levels must adapt to them so as to meet the demand for participation without unduly delaying decisions and impairing the whole decision making process.

Citizen intervention has been particularly significant and useful in illuminating the nuclear debate.

Decision making would be expedited if public participation could begin at an early stage, before industry plans are fully developed. Adoption of this objective may be dependent on enactment of State legislation authorizing control over siting decisions, as well as legislation to control or prevent speculation in land values.

To facilitate public participation, procedures for providing financial aid to intervenors should be introduced on an experimental basis by Federal agencies in the energy field.

Federal agencies in the energy field should explore and adopt innovative measures--both institutional and procedural--to improve the process of public participation, while awaiting resolution of the question of funding of citizen group intervenors.

Site selection should be conceived as fundamentally a public rather than a private responsibility, to be accomplished through a planning rather than an adversary process. The States, individually or in regional groupings, should assume this public responsibility.

The country needs an explicit and well articulated set of energy goals that would balance demand forecasts--assuming maximum conservation measures--with supply. The goals would be broken down by region and by type of energy source.

To improve the process of public participation and increase its effectiveness as part of energy-related decision making, the initiative begun with the workshop should be extended in a number of fields that make up collectively an agenda for future research. One need which is widely recognized and which should be addressed as an immediate followup of the workshop is the establishment of an information exchange mechanism or a clearinghouse to provide citizen groups and the general public with information on energy-related questions and public participation techniques.

There are a number of barriers to effective public participation. The administrative process sets up many preadjudication obstacles which effectively inhibit public participation. First, the issue may not be noticed by the public. Second, by the time the public learns of the issue, there may not be an appropriate forum for the public to express their values and information. Third, the public may have insufficient resources necessary for intervention. Finally, prehearing bargaining and the need to produce electric power quickly may foreclose adequate consideration of alternatives. In addition, many agencies are hostile toward the public. Professor Gellhorn's report to

the Administrative Conference of the U.S. found a "...frequency and sameness of agency and party hostility toward public interest intervention. There seems almost a proprietary feeling that these intervenors are intermeddlers more interested in the pursuit of publicity and psychic satisfaction than the 'public interest.' The immediate concern often seems to be with how intervention could be curtailed."[111]

This section of the paper will examine four public participation mechanisms: (1) notification of decisionmaking and planning activities; (2) access to information used in these activities; (3) limits on the ability of citizens to participate as "parties" in decisionmaking activities; and (4) institutional representation of the "public interest." Each of these mechanisms will be reviewed in terms of the existing processes governing energy-related decisionmaking.

A. Notification of Agency Activities

As noted in section 2.6 of chapter two, public participation in governmental decisionmaking is an integral part of Minnesota administrative law. The courts have recognized this policy and in No Power Line v. MEQB noted: "The two crucial concepts that permeate the entire [Power Plant Siting] Act are that the process should be orderly and that there should be public participation in all stages of agency decision-making."[112] (Emphasis not added.) Later in the PEER v. MEQB case the court "decided that the legislature did not intend the PPSA to preempt MERA and make it superfluous,"[113] The Minnesota Environmental Rights Act (MERA) extends to each citizen a right to protect the environment and public health through judicial review of agency decisions. Chief Justice Robert Sheran notes that since "MERA applies to routing decisions," it further suggests "the appropriateness of extensive citizen input."[114]

It is, however, difficult to participate in decisionmaking if one is unaware that a decision is taking place. As a recent NRC (Nuclear Regulatory Commission) study noted:[115]

> It is a recurrent phenomenon that newly interested people attempt to become involved in the governmental decision-making process concerning major products at a later date. They often seek to do so after the hearing

> in the most appropriate forum for their concerns has been closed and even after every approval normally required from government has been given. Rightly or wrongly the complaints are made that notice was inadequate and that the public was effectively excluded while proponents and agencies sat down to make a decision. The dissatisfied seek recourse before the same agencies, in court, and through the political process. Whether or not it is desirable, it is inevitable that enough dissatisfied late-comers will in some cases succeed in defeating, modifying or delaying a project that was once approved.

Numerous examples have been documented where inadequate notice has been given.[116]

The Association of the Bar of the City of New York noted in a 1972 report; Electricity and the Environment: The Reform of Legal Institutions that "many agencies now do no more than satisfy bare legal minima with respect to notice." Procedures should instead be adopted which are designed to bring proceedings to the attention of both the general public and interested subgroups of the public, in the most effective way possible."[117] Similarly, the U.S. Senate Committee on Governmental Affairs in a 1977 report; Study of Federal Regulation, Vol. III: Public Participation in Regulatory Agency Proceedings concluded that "Potential public participation is often foreclosed by inadequate notice of agency proceedings. Although some agencies have utilized the general and trade press, mass mailings, and agency publications, most agencies seldom make active efforts to solicit public views on important proceedings. This may be the only way for individual citizens, as opposed to citizen groups, to be alerted to proceedings which may affect them."[118]

There are several bases upon which an agency's obligation to provide effective public notice rests. First, public participation in agency decisionmaking is important in order to get public support for the agency's activities. The public can contribute to a good decision by providing the agency with useful information.[119] Secondly, it has been argued that agencies whose activities affect large numbers of people have a legal obligation to provide adequate public notice for their formal proceedings, at least on the federal level.[120] Regardless of the basis upon which the obligation rests, notification procedures must be reasonably adopted to the circumstances. Ample precedent exists for this in federal law.[121]

It has been suggested that the adequacy of notice to potential public participants should meet at least three standards. First, "agencies should be required to provide identified, accessible sources of information about proceedings in which public participation is possible."[122] Second, "effective notice to the general public and its representatives requires that proceedings of national and regional importance be highlighted for public participation. Otherwise public participants can drown in a sea of notice."[123] Third, "agency procedures should be redesigned to give timely, actual notice of pending proceedings, and much earlier public involvement should be permitted."[124]

Numerous recommendations have been forthcoming on how to improve notice requirements. Many of these recommendations focus on how the notice should take place. The recommendations offered include (1) mailing lists; (2) press releases to small newspapers, large newspapers, wire services, radio and TV; (3) special public services announcements; (4) advertisements where the public is located; (5) the Federal Register; and (6) specific invitations to specific groups.[125] Table 3-1 shows how the Minnesota agencies notification procedures compare with these recommendations. As may be seen, notification procedures do not include press releases to the wire services, radio, and television, or use public service announcements or other advertisements where the public is located. Only the MEA certificate of need notification process uses the large, state-wide newspapers, for its hearings under the PPSA and the EPCA. The MEQB does use specific mailing lists under the PPSA, EPCA, MEPA-EIS procedures, as does the PSC both in rate hearings and service area designation hearings. All agencies under all the laws utilize the State Register and the Secretary of State mailing lists.

RECOMMENDATION: NOTIFICATION PROCEDURES BOTH UNDER THE ADMINISTRATIVE PROCEDURES ACT AND THE ENABLING LEGISLATION FOR ENERGY-RELATED DECISIONMAKING SHOULD INCLUDE PAID ADVERTISEMENTS AND PRESS RELEASES TO STATE-WIDE AND LOCAL NEWSPAPERS, WIRE SERVICES, AND RADIO AND TELEVISION STATIONS FOR EACH AND EVERY HEARING. FURTHER, ALL ENERGY-RELATED AGENCIES SHOULD DEVELOP SPECIAL PUBLIC SERVICE ANNOUNCEMENTS AS PART OF THEIR

TABLE 3-1

NOTIFICATION PROCEDURES FOR ENERGY-RELATED DECISIONS

TYPE OF NOTIFICATION	TYPE OF ENERGY-RELATED DECISION										
	MEA GENERAL	C of N[1]	MEQB -- PPSA Info.[2]	PPS H.[3]	MEQB -- EIS DEIS[4]	FEIS[5]	MEQB -- EPCA Permit[6]	Hear[7]	PSC Rate H.[8]	S.A.D.[9]	MEA, MEQB, MPCA, PSC Rules: M.S. § 15.0412-.0417[10]
STATE REGISTER	yes	yes		yes		yes		yes	yes	yes	yes
MAILING LIST		yes		yes		yes		yes	yes	yes	yes
SPECIFIC INVIT.			yes	yes	yes	yes	yes	yes	yes	yes	
PR - LOCAL NEWS			yes	yes				yes			
PR - STATE WIDE											
PR - RADIO, TV											
PR - WIRE SERV.											
PUBLIC SERVICE ANNOUNCEMENTS											
EQC MONITOR				yes		yes					
OTHER		yes*									

1. Certificate of Need Hearings
2. MEQB Power Plant Siting Act Informational Hearings
3. Power Plant Siting Act Hearings -- Formal
4. Draft Environmental Impact Statement
5. Final Environmental Impact Statement
6. Environmental Coordination Procedures Act Permit Notification
7. EPCA Permit Hearing
8. Public Service Commission Rate Hearing
9. Public Service Commission Service Area Designation Hearing
10. Rulemaking Hearings for MEA, MEQB, MPCA, and PSC

* As director may specify.

NOTIFICATION PROCEDURES FOR ALL OFFICIAL HEARINGS.

RECOMMENDATION: THE CONTENT OF THE NOTICE SHOULD BE EXPLICIT ENOUGH TO PROVIDE INFORMATION ON THE NATURE, TYPE, AND LOCATION OF THE HEARING. FURTHER, THE NOTICE SHOULD EXPLAIN A CITIZEN'S RIGHTS AND RESPONSIBILITIES FOR PARTICIPATING IN THE HEARING.

RECOMMENDATION: THE NOTICE OF HEARING SHOULD PROVIDE ADEQUATE TIME, AT LEAST 90 DAYS PRIOR TO THE START OF THE HEARING,FOR THE CITIZEN TO ORGANIZE AND PREPARE HIS CASE. CONSEQUENTLY, THE NOTICE OF HEARING SHOULD RUN AT LEAST ONCE A WEEK FOR EIGHT WEEKS.

The Minnesota Legislature has recognized that it is in the best interests of the state to provide as effective public participation as possible in the power plant siting process. The legislature succeeded to a large extent by creating a Public Advisor (M.S. § 1160.59, subd. 3) "for the sole purpose of assisting and advising those affected and interested persons on how to effectively participate in site and route proceedings."[126] The notion of a public advisor fits well with the general policy of public participation within the Power Plant Siting Act. The Act requires the board to "adopt broad spectrum public participation as a principle of operation. The form of public participation shall not be limited to public hearings and advisory committees. . . ."[127] The public advisor, then, is a human representative of the notification procedure of the Act.

The public advisor concept has been extensively examined by the Power Plant Siting Advisory Committee. In its January 26, 1978 series of recommendations, the committee recommended that "the provision in the PPS Act for a public advisor be expanded as a concept to include the certificate of need process. The committee does not recommend that a public advisor simply be added to the energy agency, since this might contribute to the segmentation of the process of siting plants and routing lines. The public advisor should be involved from need through siting and routing. We recognize that this is, in effect, calling for the establishment of an office of

public advisor, since one person could not effectively handle the whole process."[128] Such a recommendation is compatible with the NRC study recommendation that "public participation in the proceeding in which need for power and other regional economic issues are reviewed should be maximized."[129] Such a recommendation would probably be welcomed by the MEA. In its 1978 Energy Policy and Conservation Report, the MEA recommended: "more citizen participation in the Certificate of Need process for large energy facilities."[130]

Many important processes extend beyond "need" and the "siting" decisions. Such processes include the environmental impact statement process, permitting of new facilities process, the "rate" process, as well as the process for assigning exclusive service areas. All of these processes involve electrical energy policy. As such, they deserve as much public attention as the siting and need processes.

RECOMMENDATION: THE PUBLIC ADVISOR CITIZEN INVOLVEMENT TOOL SHOULD BE EXTENDED TO THE CERTIFICATE OF NEED, ENVIRONMENTAL IMPACT STATEMENT, PERMITTING, RATES, AND DESIGNATED SERVICE AREA PROCESSES. FURTHER, THIS SHOULD BE ACCOMPLISHED BY THE CREATION OF AN OFFICE OF PUBLIC ADVISOR TO BE ESTABLISHED IN A MANNER SIMILAR TO THE OFFICE OF HEARING EXAMINERS.

B. Information on Issues

In 1972, the New York Bar Association concluded that "improved public access to information is essential if the 'responsible' public participation in agency proceedings universally desired is to become a reality, since no one can make an adequate presentation in the complex electricity/environment area without access to the facts. Greater information availability is also necessary if the general level of debate on electricity/environment issues, apart from particular proceedings, is to be raised."[131] This conclusion, indicative to electricity and environmental decisionmaking, is true for all governmental decisionmaking, as well.

In 1822, James Madison wrote to a friend that "a popular government without popular information or the means of acquiring it, is but a prologue to a farce or a

tragedy; or perhaps both. Knowledge will forever govern ignorance; and a people who mean to be their own governors, must arm themselves with the power which knowledge gives."[132] In recent times his wisdom has been embodied in administrative law through the federal Freedom of Information Act (5 U.S.C. § 552) and the National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.), which required the gathering, disclosure, and public review of information involving major federal action which affect the environment. Minnesota also has similar laws, though not as specific in the freedom of information area (M.S. § 15.1611 et. seq. and M.S., Chapter 116D, the Environmental Policy Act).

A recent NSF (National Science Foundation) sponsored study on public participation in energy-related decisionmaking pointed out many unmet needs for effective citizen participation. They found that a better "machinery for synthesis and dissemination of information" is needed. The workshop concluded that "to improve the process of public participation and increase its effectiveness as part of energy-related decisionmaking, the initiative begun in the workshop should be extended in a number of fields. . . . One need, which is widely recognized . . . is the establishment of an information exchange mechanism or clearinghouse to provide citizen groups and the general public with information on energy-related questions and public participation techniques."[133] Other studies, however, show that the problem goes beyond just convenient access to the information. A review of hearings held by Congress from 1952 to 1974 on the Federal Freedom of Information Act as well as other studies show that agencies were not just reluctant to provide access to the public, but went out of their way to inhibit and discourage public access.[134] Joseph Coates of the Congressional Office of Technology Assessment explains why:[135]

> Bureaucratization induces a number of qualities inimical to the basic concepts of democracy and free society. Bureaucracies tend to be secretive, self-serving, non-imaginative, non-risktaking, and susceptible to functional lying. They lack a nervous system commensurate with their size and responsibility. In their relationships with the public, bureaucracies withhold certain kinds of unpalatable information or deliver information in such a way that it distorts facts. Bureaucracies find it even more difficult than individuals

> to deal with bad news. Although they are intended to be the servants of the public, in fact, bureaucracies mature into instruments freighted with various kinds of impediments limiting responsiveness to commonwealth interests.

It has been often argued that the enactment of far-reaching legislation and policies should not be enacted without debate on the merits nor without broad public acceptance of the principals. NEPA and MEPA reinforces this notion in the environmental area. The requirements for review of environmental impact statements, assessments and worksheets were designed to foster constructive criticism, provide for the free exchange of ideas, improve the quality of advice, and to include the public as partners in the decisionmaking process. Such is the goal of the Administrative Procedures Act and some aspects of the enabling legislation of energy-related laws in Minnesota, as well. On the Federal level, for example, in order to encourage and permit the flow of unrestricted information in the old AEC (Atomic Energy Commission), where extensive abuses had taken place, Congress amended the law in 1970 "so as to provide that free exchange of ideas and criticism which is essential to . . . progress and public understanding."[136] In essence, the public should be viewed as partners with the agency in the process. As the New York Bar Association report noted: "public groups should have regularized access to agency staff experts, to discuss general questions as well as particular applications. In inviting outside contact with agency staff, commissioners should emphasize appearances before environmental and consumer groups no less than those before industry trade associations."[137] In regard to scientific expertise, Joel Primack and Frank von Hipple concluded in their book Advice and Dissent: Scientists in the Political Arena:[138]

> Besides making important information available to those who need it both inside and outside government, free access to advisory reports and proceedings will almost inevitably improve the quality of the advice--because data and judgments would be subjected to the scrutiny of free scientific debate; because the various practices by which officials attempt to influence advice, from "packing" of committees to intimidation of advisors, would become less practicable; and also because creative proposals and thoughtful judgments would redound to the credit of their authors.
>
> Scientists are always rightly suspicious of any scientific claims or conclusions which are presented without adequate supporting evidence.

> There is no reason why this fundamental tenet of the scientific method should not apply equally to the technical advice and analyses on which public policy is based.

In sum, there must be a mechanism to improve the public's access to technical information held by government. One of the conclusions that came out of Dorothy Nelkin and Michael Pollack's study of the usefullness of Sweden's study circles was that "if a more open decisionmaking process is to be effective, there must be a means to improve the public's access to technical information and its ability to use such information in a political forum. Efforts to create an informed and interested citizenry confront many problems. People tend to seek definitive answers and are not prepared to accept the uncertainty that is basic to evaluating the potential impact of science and technology. Moreover, the unwillingness of scientists to challenge governmental policies and to work with citizen action groups varies. If study circles or public debates are to be effective, there must be a means to make expertise available to citizen groups."[139] Generally, the public lacks the resources to effectively obtain the information themselves. Further, the short lead times prior to formal participation, such as hearings and deadlines for written comment, accentuate the problem.

In material presented by the Upper Midwest Council at the 1977 Energy Futures Conference, the council suggested that one policy direction should be that "appropriate state agencies (MEA, PCA, EQB, DED) should improve efforts to make their data available to citizens on a wider basis. . . . It is both not getting to citizens as well as it should, and it is not being made available in forms which are readily apparent by laypeople." The position paper recommended that:[140]

> Overall energy information systems and programs should be improved and expanded to provide citizens full information on costs, benefits, trade-offs, timing, new technologies, opportunities for citizen involvement in decision making and available financial and technical assistance.
>
> Packaging and presentation of data in forms useful to citizens and to businesses and others is important if state government is to stimulate self-initiative in energy problem solving.

> Better communications need to be established between government and the private sector to insure quality of data and to insure that data interpretation and policy development is occurring in a sound manner.

RECOMMENDATION: THE PRIMARY ENERGY-RELATED DECISIONMAKING AGENCIES (MEA, MEQB, PSC, DED AND THE MPCA) SHOULD COORDINATE THEIR INFORMATION GATHERING AND PROVIDE A JOINT INFORMATION CLEARINGHOUSE TO GIVE CITIZENS EASY ACCESS TO ENERGY-RELATED INFORMATION.

RECOMMENDATION: MINNESOTA STATUTES § 15.1611 ET. SEQ. SHOULD BE AMENDED TO GIVE CITIZENS AN UNQUALIFIED RIGHT OF ACCESS TO ENERGY-RELATED INFORMATION OF A NONPERSONAL NATURE.

An unqualified right of access to energy information of a nonpersonal nature is insufficient by itself to protect the people's right of access. (Personal information is data on individuals, who are not employees of government agencies or utilities, who provide data on survey forms and similar data gathering devices. Personal data does not include statistical summaries of such data.) The hearings on the federal Freedom of Information Act noted earlier discovered many ways that agencies can deny access to citizens. These hearings pointed out seven basic procedures that can protect a citizen's right to gain access to information: (1) a time limit of 10 days or less to respond to a request, or an explanation of why it would take longer; (2) a uniform fee schedule for all agencies, with fees commencing only after a certain number of pages; (3) a right to judicial review if the agency denies the request in whole or in part or if they fail to provide the requested information in a timely manner; (4) a regulation and notification requirement to explain to citizens how to obtain the information; (5) a recordkeeping and reporting requirement so that the agency, legislature and the public can determine how well the law is being implemented; (6) an indexing provision so that the public knows what information is available; and, (7) that disclosable information commingled with non-disclosable information be made public.[141]

Since disclosure of information necessarily precedes effective public participation and debate, obstacles to effective public participation must be removed.

RECOMMENDATION: MINNESOTA STATUTES §15.1611 ET. SEQ. SHOULD SPECIFY ACCESS TO INFORMATION PROCEDURES WHICH INCLUDE: TIME LIMITS, UNIFORM FEE SCHEDULES, A RIGHT TO JUDICIAL REVIEW, A REGULATION AND NOTIFICATION REQUIREMENT, AND A RIGHT TO SEE ALL DISCLOSABLE INFORMATION.

The New York Bar Association Report recommends "procedural hurdles to intervenors' participation which serve only to increase the cost burden on public groups without benefiting the result, ought also to be eliminated or modified. Any procedure which tends to frustrate public involvement should be tested to make certain it serves a legitimate purpose, which could not be as well served by a less restrictive procedure."[142] Multiple copy requirements, transcript fees, and file information costs all pose significant procedural barriers.[143] Professor Ernest Gellhorm in a report to the Administrative Conference suggested that ". . . hearing transcripts [be] made available free or at a reduced cost, agency files systematized for easier public use, [and] access opened to agency experts as advisors and witnesses."[144] In addition, he recommends "where even reasonable and necessary requirements for the filing of multiple copies work a hardship on public participants, agencies should be generous in waiving these requirements. In addition, agencies should permit use of their duplication facilities at a minimum cost in order to assist parties who lack access to such services."[145] The U.S. Senate Study on Federal Regulation concluded that "opportunities for citizen participation are hampered by significant administrative costs such as transcript fees. . . ."[146]

RECOMMENDATION: TRANSCRIPTS OF AGENCY HEARINGS SHOULD BE PROVIDED AT LITTLE OR NO COST, MULTIPLE FILE REQUIREMENTS SHOULD BE REMOVED, AND CITIZENS SHOULD HAVE OPEN ACCESS TO AGENCY EXPERTS AS ADVISORS AND WITNESSES.

C. Citizen "Standing," "Intervention," and "Initiation"

There are many ways that citizens can participate in governmental decisionmaking.

Citizens can, for example, bring an action or suit in court, participate in an agency activity, or initiate a decisionmaking process within an agency. These are the most common ways in which citizens participate in governmental decisionmaking outside the legislative branch. However, there are important procedural obstacles to overcome if a citizen wishes to participate. In order to bring an action, a citizen must have "standing" to bring the action. In order for the citizen to participate in agency rulemaking or quasi-judicial decisionmaking, the citizen must first be able to "intervene" in the activity. In addition, in order for the citizen to be able to "initiate" the decisionmaking process, he must be granted the legal right to do so. This section of the paper reviews the history, theory, and importance of the doctrines and procedures relating to the ability of citizens to participate in governmental decisionmaking.

1. Standing in Court

A common adage both in America and English common law is that "everybody is entitled to their day in court." In order to have your day in court, a person must have a "cause of action." It used to be that in dealing with decisions of governmental agencies the cause of action must be of a substantive nature, be legally protected, and affect the interest of the person who brings the action or suit. A person who meets these criteria then has "standing" to bring the action. The "standing" or "standing to sue" doctrine is defined, according to Black's Law Dictionary as a "doctrine that in action in federal constitutional court by citizen against a government officer, complaining of alleged unlawful conduct there is no justifiable controversy unless citizen shows that such conduct invades or will invade a private substantive legally protected interest of plaintiff citizen."[147] (This definition arose in the opinion in Associated Industries of New York State v. Icks, (C.C.A.2), 134 F.2d 694, at 702.) Standing is the legal doctrine which determines whether the person bringing the action has a right to do so. If a person lacks standing, the person may not bring an action (sue) and any complaint filed will be dismissed. In other words, standing

is a legal doctrine that, if granted or upheld, conveys the right to sue a government official or agency. A second type of standing refers to the ability to intervene in formal agency decisionmaking, particularly that which involves rulemaking and quasi-judicial activities. This type of standing is important as well. If a person is denied standing to intervene in agency decisionmaking, then that person cannot participate in the outcome of the decision (see section 3.2C(2) of chapter three, infra, for more information). A third type of standing is that of the right to intervene in court adjudications, i.e., judicial decisions usually involving property or contract controversies.

The traditional model or test of standing in court adjudications at the beginning of the century was whether the "interest" asserted by the plaintiff amounted to a "legal right" entitled to the protection of the common law.[148] This meant that the right to intervene in court adjudications was narrow, and depended primarily upon the existence of "property which is in custody or subject to the control or disposition of the court," and required that the intervenor show that his interest was not protected adequately by the existing parties.[149] "This limitation on standing was consistent with the two central tenants of the then prevailing theory of individual rights against the government: first, that the only valid basis for government intrusion into private autonomy under a contractarian model of the state was the consent of the governed (as expressed through valid legislation); and second, that the common law of property and contract defined the sphere of private autonomy protected against both individuals and the state. . . . Under this theory, standing gave a basis for judicial review coterminous with the individual's due process rights to adequate procedural safeguards since government interference with a common law liberty or property right was also interference with liberty or property under the fifth and fourteenth amendments."[150]

Since the beginning of the century, the standing requirements have been relaxed in the area of court adjudications. Amendments to the Federal Rules of Civil Procedures have changed the property requirement, so that under present rules an intervenor need

only show "an interest relating to the property or transaction which is the subject of the action."[151] A relaxation of the representation requirement has also occurred. The Supreme Court has held that a state, a customer, and a competitor have a sufficient interest to intervene in government antitrust divestiture proceedings because their interest is inadequately represented.[152] Several lower court opinions have concluded that the rules now create a presumption in favor of the right to intervene.[153]

The rules governing standing to seek judicial review of agency decisions have also been relaxed. "The early view was that a party seeking judicial scrutiny had to show that he had a legally protected interest, rather than a mere economic stake, that was adversely affected by the agency's decision."[154] This rule was diluted by a ruling which extended standing to include interests protected by statute as well as common law. The main impetus behind this dilution of standing was the passage of the federal Administrative Procedures Act, in particular section 10(a) (5 U.S.C. § 702), which provides that "a person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof."[155] The second impetus to extend standing to an increased range of affected interests was the perception by the courts that the agencies had failed to represent the public interest. (See section 3.1E(2) of Chapter Three above.) The provision of section 10(a) does not automatically confer standing on any party. The standing doctrine of today has two sources. The "case or controversy" requirement of Article III of the U.S. Constitution and judicially imposed rules of self-restraint. All requirements beyond the constitutional minimum are imposed by the court and are subject to change by the legislative branch. The Supreme Court has begun a major relaxation of the standing doctrine, which involves four separate inquires to determine standing. The first inquiry concerns the existence of "injury in fact, economic or otherwise. . . ."[156] The injury must be a "particular concrete injury" which amounts to "a claim of specific present objective harm or a threat of specific future harm." The injury cannot be "remote," "speculative," or "conjectural." This requirement is the "irreducible constitutional minimum which

must be present in every case."[157] If the court finds there is no injury in fact, "no other injury is relevant to the consideration of . . . standing."[158] The other three inquires involve (1) whether the interest of the complaining party is within the zone of interests to be protected or regulated by statute or the constitution; (2) whether the complaining party alleges some threatened or actual injury resulting from the illegal action of the agency; and (3) whether the injury can be redressed by some favorable action of the court. All four of these inquires must be affirmed before the plaintiff can make a valid claim of standing. However, where the legislative branch has provided statutory standing, the range of judicial inquiry is narrowed to whether there exists a case or controversy under Article III of the U.S. Constitution.[159]

Expansion of the statutorily protected interest rationale for standing may not, in itself, assure that those who benefit from the statute will be represented in agency or judicial proceedings. As Harvard law professor Richard Stewart has noted: "when an injury to a statutorily protected interest is diffused so that no individual suffers any great injury, group representation [class action suits] may be difficult to organize and no single individual may have an incentive to undertake a costly challenge of agency action. Recognizing this problem, courts have occasionally afforded judicial review to persons with sufficient economic injury to provide an incentive to challenge agency action even when no interest of their own is protected by statute or common law."[160] This type of standing is referred to as "surrogate standing."

The review of the standing issue above raises several questions. Why should standing be limited to those people who have a legally protected interest? Why should "injury in fact" be a condition of standing? Why have any limits on standing at all, beyond the case or controversy requirement of Article III? Professor Stewart has identified three categories of interests: (1) interests "having to do with economic or physical well being," (2) interests "in affirmation of moral and religious

only show "an interest relating to the property or transaction which is the subject of the action."[151] A relaxation of the representation requirement has also occurred. The Supreme Court has held that a state, a customer, and a competitor have a sufficient interest to intervene in government antitrust divestiture proceedings because their interest is inadequately represented.[152] Several lower court opinions have concluded that the rules now create a presumption in favor of the right to intervene.[153]

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principles," and (3) interests "in enforcement of law."[161] He has also identified four classes of plaintiffs: (1) a plaintiff who represents his own interest; (2) a class plaintiff who represents himself and others who share the interests; (3) the associational plaintiff who represents the interest of the members of his organization; and (4) the surrogate plaintiff who represents the interest of others.[162] His analysis of the standing issue resulted in the following conclusions: (1) "enforcement of the legally protected interest requirement to limit standing may impose burdens on courts and litigants that could be avoided by extending the right of judicial review to any person who might throw some light on the issues involved "with court review" limited to insuring that the agency operates within its discretion, giving fair treatment to those interests that the legislature has required it to consider;" (2) "resort to the judiciary may be necessary in order to secure effective outside scrutiny of agencies' exercise of policy choice;" and (3) we should embrace "Professor Jaffe's 'public action,' under which the judge enjoys discretion to accord standing to any able, willing plaintiff in order to curb asserted official illegality."[163]

The U.S. Senate Study on Federal Regulation reached similar conclusions:[164]

> (8) The Supreme Court in recent years has taken an increasingly restrictive view of the standing requirements that make it difficult for citizens to obtain judicial review of allegedly unlawful Government action. At present, some of the Supreme Court's decisions in this area constitute a considerable barrier to citizen participation in the regulatory process.

The study recommended that:[165]

> (1) Congress should ease the requirements of standing in order to provide greater public access to the Federal courts for review of regulatory agency decisions:
>
> (a) Legislation should be adopted to provide that when a statute has been designed primarily to benefit the general public, any member of the public has standing to sue to enforce the provisions of that statute.
>
> (b) Congress should amend the Administrative Procedure Act to provide that when permission is granted to a party to intervene in an administrative agency proceeding, the requisite for

standing to seek judicial review of the proceeding will be satisfied.

(c) Congress should, where appropriate and necessary, incorporate permissive standing into specific pieces of legislation.

Minnesota has already removed the standing requirement for review of agency decisions involving environmental matters under the Minnesota Environmental Rights Act (MERA) (see section 2.6B of chapter two for more details). The public can appeal decisions of the Public Service Commission as a "matter of right" (M.S. § 216B.52). Such a right was also granted under the Public Utilities Regulatory Policies Act, which is part of the National Energy Act of 1978. However, such unlimited standing rights do not apply across the board in the application of the Administrative Procedures Act.

RECOMMENDATION: STANDING AS A REQUIREMENT FOR JUDICIAL REVIEW OF AGENCY DECISIONS SHOULD BE REMOVED, EXCEPT FOR THE CASE OR CONTROVERSY REQUIREMENT OF ARTICLE III OF THE U.S. CONSTITUTION. THE ADMINISTRATIVE PROCEDURES ACT, IN PARTICULAR MINNESOTA STATUTES SECTIONS 15.0423, 15.0424, and 15.0426, SHOULD BE AMENDED TO REFLECT THIS POLICY.

2. Intervention in Agency Activities

Standing to intervene in agency activities and standing to sue, while similar, are not analogous. There are three principal differences. First, the ability to intervene in an agency proceeding does not have any constitutional dimension, unlike judicial standing. In a recent case the District of Columbia Circuit court found that the allegations of the plaintiff were insufficient to warrant a finding that denial of intervention to citizen groups was an infringement of the first amendment right to petition government or a fifth amendment requirement of "due process," and left to a "future day when the issue will be clarified and thoroughly briefed" as to whether a Constitutional "right to participate" exists.[166] Second, intervention may be compelled by consideration of the need for additional viewpoints and information. This is not true of judicial standing. Finally, support for the distinction between judicial standing and agency intervention is found in the federal and Minnesota Administrative

Procedures Act. The acts distinguish between appeals by "aggrieved" parties and participation in agency activities by "interested" persons. This distinction provides for a more permissive standard for intervention.

The demand for broader public participation is based on several notions. First, that the agency staffs cannot be relied upon to forcefully represent the views of the consumer, poor, minority, environmental, and other groups. Second, some critics allege that administrative agencies have been captured by the interests they regulate, and therefore cannot be trusted to regulate in the public interest. Another belief is that the agencies simply respond to the inputs they receive, and as long as the primary inputs are from the regulated interests, the decisions of the agencies simply reflect these inputs. An additional theory holds that agencies must have political support in order to exist, and, since the regulated interests are the only interest assured of being around, the agencies reflect the regulated interests in order to maintain this political support. Public participation is generally seen as the mechanism necessary to remedy this situation, regardless of which notion is believed to be at the root cause. Irrespective of these arguments, the widespread lack of public confidence in governmental decisionmaking require some action, even if these notions do not reflect the realities of the situations. As Professor Roger Cramton of Harvard University noted:[167]

> broadened public participation in the administrative process is necessary and desirable in order to provide an expanded set of ideas, rewards, and incentives for regulators. American democracy is marvelously diverse in its pluralism, variety, and complexity. Critics that saddle it with charges of unresponsiveness are in error, for our government institutions are highly responsive. But responsive to what? The answer is obvious. They are responsive to the inputs they receive, including the feedback that greets their action.

There are four broad categories of administrative hearings through which the public may participate (intervene). First, notice-and-comment rulemaking, which is a quasi-legislative proceeding, provides two mechanisms for public input. The agency can ask for written comment, where upon the primary barrier to public participation

is notification of the agency action. The agency can also hold oral hearings, usually of informal nature and modeled upon the legislative process a participant presents his views, usually is not cross-examined, and "discovery" (a judicial type fact-finding procedure) is not allowed in order to provide the broadest input for standards which have broad applicability. Second, rulemaking-on-a-record, which usually involves an oral hearing, is designed to gather evidence and argument and are similar to adjudication hearings (see below) because the agency's decision must be based upon and limited to the hearing record. Examples of this type of hearings include food standards, exposure limits to hazardous agents, etc. A third type of hearing is that of rate-making. The setting of rates contains elements of both rulemaking and adjudication. "Although ratemaking, like rulemaking, is of 'future effect,' it is based primarily upon the proof of past 'adjudicative' facts, and usually has 'particular' rather than 'general' applicability. Consequently, ratemaking proceedings are usually trial-type hearings where testimony is sworn and subject to cross-examination and the resultant order has an impact on named parties."[168] A final type of agency hearing is that of adjudication. These are trial type hearings for deciding questions of disputed facts and for ordering compliance by specific parties to specific laws and regulations. In this type of hearing the parties are represented by counsel, evidence is received in question and answer form, and witnesses are subject to cross-examination and rebuttal.

There are two issues raised by public participation or intervention in agency activities. The first issue is whether the public can participate. The second issue is the role and extent of that participation. A general "right" to intervene has been recognized by the federal courts.[169] This right to intervene was sometimes mandated by the courts, because of the enabling legislation of the agency or rested upon the Administrative Procedures Act, which provided a discretionary provision to the agency to permit intervention: "so far as the orderly conduct of public business permits, an interested person may appear before an agency or its responsible employees for the presentation, adjustment, or determination of an issue,

request, or controversy in a proceeding, whether interlocutory, summary, or otherwise, or in connection with an agency function."[170] Minnesota's APA provides that affected and interested persons have the opportunity to participate in rulemaking, with the role and scope of that participate subject to the discretion of the hearing examiner, or in the absence of a hearing examiner, the agency. Affected parties may participate in contested cases.[171]

The second issue is the most important, though it would be moot without the opportunity to intervene. Agencies in recent times have promulgated regulations that define the role and scope of public participation. In Minnesota, the primary regulations governing public participation of agencies that follow the Minnesota Statutes, Chapter 15 requirements are the hearing examiner rules, both the general rules and the special rules for power plant siting cases. The hearing examiner rules for power plant siting do impose an intervention test (9 MCAR §2.408). Generally, the hearing examiner has discretion of either denying or consolidating a petition for intervention if another party represents the petitioner's "interest," and may permit the submission of comments or evidence by any person. The hearing examiner may prohibit redundant, immaterial or irrelevant presentations, comments or evidence.[172]

Citizens who attempt to intervene may face hostility from the agency. University of Wisconsin law professor Donald Large believes there are three reasons for this hostility. First, agencies are suspicious of intervenors who challenge the "well settled policies and attitudes" of the agencies "frame of reference." Second, the agencies, which have developed a rapport with the regulated interest and have come to rely on them for information, gradually develop a bias in favor of the regulated industry in their joint "enterprise to benefit the public interest." Finally, the agency has no desire to eliminate itself, so, consequently, it has no desire to eliminate the problem, since ipso facto it would eliminate itself.[173]

The issue of intervention has been debated for many years, and has been the subject of much discussion by study groups and law associations. Attorney Albert Butzel in a 1973 symposium on public intervention concluded: "in the light of the role that the courts have carved out for intervenors . . . and the risks inherent in denying interested citizens the right to be heard, intervention has assumed the proportion of a right, even where the applicable standard or rules are phrased permissively."[174] The U.S. Senate study reached the following conclusion: "although agencies generally have relaxed intervention requirements in recent times, there is considerable variance in the standards between agencies. In some cases, the standards have not been precisely or clearly defined; in the case of other agencies, the standards have been conservatively applied. Greater clarity and uniformity is needed to assure full public access to administrative agency proceedings."[175] The study recommended that:[176]

> (2) Congress should amend the Administrative Procedure Act to provide full opportunity for public intervention in regulatory agency proceedings. A general interest standard should be established, and agencies should be required by statute to grant intervention if:
>
> > (a) A clear interest, economic or otherwise, is established which is likely to be affected by the outcome of the proceeding; and
> >
> > (b) that interest is not adequately and competently represented by the existing participants, other than the Government.
>
> However, agencies might impose reasonable limitations on participation in the interest of (i) restricting irrelevant, duplicative, or repetitive evidence or argument, (ii) having common interests represented by a single spokesperson, and (iii) retaining authority to determine priorities and control the contents of the proceeding.

This recommendation is similar to the Administrative Conference of the United States, Recommendation 28:[177]

> In connection with agency proceedings where the agency's decision is preceded by notice and an opportunity to be heard or otherwise to participate - namely, notice-and-comment rulemaking, on-the-record rulemaking and adjudication - each agency should, to the fullest extent appropriate in the light of its capabilities and responsibilities, apply the following criteria in determining the scope of public participation and adopt the following methods for facilitating that participation:

> Agency rules should clearly indicate that persons whose interests or views are relevant and are not otherwise represented should be allowed to participate in agency proceedings whether or not they have a direct economic or personal interest. Whatever the form of the proceeding, reasonable limits should be imposed on who may participate in order (a) to limit the presentation of redundant evidence, (b) to impose reasonable restrictions on interrogation and argument, and (c) to prevent avoidable delay. In every determination of whether participation is appropriate, the agency should also determine whether the prospective participant's interests and views are otherwise represented and the effect of participation on the interests of existing parties.

However, the ABA (American Bar Association) asserts that there is no efficient test for legal standing so far as industrial siting issues are concerned. The ABA felt that the test for sufficient interest should be determined by the participant himself.[178]

RECOMMENDATION: THE MINNESOTA ADMINISTRATIVE PROCEDURES ACT SHOULD BE AMENDED TO GUARANTEE ANY CITIZEN THE RIGHT TO INTERVENE IN ANY AGENCY ACTION REGARDLESS OF THE NATURE OF THE CITIZEN'S INTEREST. IN PARTICULAR, NO QUALIFICATION OF THE RIGHT TO INTERVENE SHALL BE CONSIDERED IN DECISIONS INVOLVING THE SITING OF ANY KIND OF FACILITY.

The right to intervene will not matter if agenices are not required to fully consider all participating interests in agency policy and decisions. Professor Steward explains:[179]

> So long as controversies remained bipolar in form and character - the citizen versus the government - it remained possible to conceive of administrative law as a means of resolving the conflicting claims of governmental power and private autonomy. However, the expansion of the traditional model to include a broader universe of relevant affected interests has transformed the structure of administrative litigation and deprived the simple notion of restraining government power of much of its utility. In multipolar controversies, demarcation of distinct spheres of governmental and private competency may no longer be feasible, and the non-assertion of governmental authority may be itself a decision among competing interests. Failure to grant a license for a power plant, for example, may protect environmental interests at the expense of power consumers, while failure to remove ineffectual drugs from the market may preserve manufacturers' welfare at the expense of patients. Moreover, broad statutory directives are likely to be conspicuously unhelpful in deciding multipolar controversies, and the possibility of developing an enriched theoretic structure of rights and responsibilities which might resolve the ensuing decisional complexities is as yet unrealized. Accordingly, clearcut rules of decision are unlikely to emerge; agency

> decisionmaking becomes of necessity a process of striking a case by case balance among the various competing interests recognized by the applicable statute as relevant factors in policy choice. The logic of the pluralist model requires the agency to give adequate regard to each of the competing interests so that the resulting policy may reflect their due accommodation.
>
> The right simply to appear and present evidence and argument in agency proceedings, while not in itself inconsequential, would be greatly diminished in value if agencies were free to disregard the interests of those entitled to participate. Accordingly, courts have imposed upon agencies an affirmative duty to consider all the relevant interests affected by agency policy.

RECOMMENDATION: THE MINNESOTA ADMINISTRATIVE PROCEDURES ACT SHOULD BE AMENDED TO REQUIRE AGENCIES TO HAVE AN AFFIRMATIVE DUTY TO CONSIDER ALL INTERESTS IN ARRIVING AT A DECISION. FURTHER, THE COURTS IN REVIEWING AGENCY ACTIVITIES SHOULD EVALUATE WHETHER OR NOT THE AGENCY ADEQUATELY AND FULLY CONSIDERED THE INTERESTS OF ALL PARTIES AND PARTICIPANTS.

3. Initiating Agency Action

A logical extension of providing increased public participation to review agency actions in court and to intervene in agency decisionmaking is to provide the public with the right to initiate the agency activity. Minnesota already provides for this in rulemaking. Minnesota Statutes, § 15.0415 provides that "any interested person may petition an agency requesting the adoption, suspension, amendment, or repeal of any rule."[180] However, no such provision exists for initiating a contested case procedure.

The right to participate in agency activities or to seek judicial review thereof is of little importance if the agency develops policies or disposes of controversies by informal methods in which standing and intervention procedures are not applicable. In addition, the courts have traditionally not used their powers to review informal administrative processes.[181] For example, an agency decision to institute enforcement proceedings or not to do so and the informal settlement procedures have not been normally subject to judicial review.[182] This is true despite the possibility that "agency laxity might result in inadequate protection for the putative beneficiaries

of the administrative scheme. Rather, agency decisions on priorities and basic policy have remained outside judicial purview unless and until crystallized in formal proceedings."[183] This judicial tradition of noninvolvement in informal agency proceedings has shifted in recent times, due to increased public criticism of agency performance.[184] "After all, it is in informal processes of decision that the advantages in representation enjoyed by organized interests may be most telling. Even if formal proceedings are eventually held, the agency's policy commitments may have already been set, and the 'public hearings [may be] mere window dressing'."[185] With this shift the court has begun to assume the ultimate protection of the "collective social interests which administrative schemes were designed to secure."[186]

RECOMMENDATION: THE MINNESOTA ADMINISTRATIVE PROCEDURES ACT CONTESTED CASE PROCEDURE SHOULD BE AMENDED TO PERMIT THE PUBLIC TO PETITION TO INITIATE FORMAL CONTESTED CASE PROCEDURES WHERE INFORMAL PROCEDURES MAY NOW BE USED. THE PETITION SHOULD BE SPECIFIC AS TO WHAT ACTION IS REQUESTED AND THE NEED FOR THE ACTION. DENIAL OF THE PETITION SHOULD BE SUBJECT TO JUDICIAL REVIEW.

D. Representing Unrepresented Interests

The broad participation rights recommended in the previous subsections (chapter three, section 3.2A,B, and C) do not, in and of themselves, assure that all relevant interests will be represented before the agencies or courts. Such representation is unlikely to occur among the poor, the unorganized, and where the impact of the decision is so diffused that no single individual will have an incentive to intervene or undertake litigation. Surrogate standing, while rarely granted, is even more rarely requested. In addition, the public interest, as noted previously (see section 3.1E(3) of chapter three), is not a monolith. "Public interest" advocates do not represent and do not claim to represent the interests of the community as a whole. They only claim to represent their interest, and they allege, often with good reason, that their interests have heretofore not been adequately represented or considered by the agency. The

representation of these "public interest" groups is consistent with a pluralistic vision of the collective welfare to be considered in arriving at a decision. However, a pluralistic vision requires that all interests be represented. At present, the decision as to which "public" interests will be represented (questions of standing notwithstanding) rests primarily with the private attorneys and foundations which provide the little funding which exists for such representation.

There exists within government today a no man's land with the center being our legal system. The courts, while generally addressing the procedure upon which decisions are arrived at, rarely address substantive problems, particularly where an agency is granted discretion. The agencies do not often consider the interests beyond the interests of those they regulate. When others' interests are presented, the agencies often view them with hostility or suspicion. This no man's land is the antithesis of democracy itself. Alexis De Tocqueville warned over a hundred years ago that the chief source of this problem is a representative system by which men periodically bestir themselves to select their masters and then relapse back into a state of total subservience, allowing a benevolent bureaucratic state to exercise a legislative function vast in scope and minute in detail.[187] The key to overcoming some of the problems associated with the delegation of authority is to provide for pluralistic inputs into the decisionmaking process. The previous subsections of this chapter pointed out some mechanisms that would permit some interests to represent themselves. These mechanisms are insufficient by themselves to assure a broad based pluralistic input into agency decisionmaking. They need to be augmented by additional tools to assure that unrepresented interests become represented.

In order to redress the imbalanced representation of interests in regulatory agency proceedings, four major reform proposals have been suggested. These include (1) inter-agency advocacy on factors that affect decisions; (2) a public counsel to represent the interests of specific clients in agency proceedings; (3) a citizen advocate to represent unrepresented interests as a class; and (4) an independent

intervenor backup center to provide information and assistance to those who wish to intervene in agency decisions.* The inter-agency advocacy proposal will be discussed in chapter four. The remainder of this subsection will address the remaining three proposals.

1. The Office of Public Counsel

One approach for institutionalizing public participation in regulatory agency proceedings is the establishment of an "office of public counsel." The purpose of this office is to redress the under representation of nonregulated interests that often occur. The office would, by representing specific, nonregulated clients, urge that certain problems be addressed in adjudicatory or rulemaking proceedings where significant public interests are at stake. The office would also be able to appeal agency decisions to court. This approach would require each agency that has rule-making or adjudicatory functions to establish a "legal aid office" to investigate complaints and represent nonregulated interests. The office would respond to complaints from the public and establish actual attorney-client relationships with groups whose interests they would represent before the agencies.

There are a number of advantages to the creation of this office. It would have substantial expertise in matters before the agency. The office would enable attorneys and technical staff to maintain superior knowledge in substantive areas as well as administrative practice. In a report to the NRC (Nuclear Regulatory Commission) a consulting firm noted that this expertise factor would be helpful in highly technical areas such as nuclear power.[188] Second, an internal advocate could develop systematic, rational, and consistent positions of advocacy. Consequently, it could utilize intervenor resources more efficiently. Finally, it could represent interests that otherwise would not, for many reasons, be able to organize and intervene in agency

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*These terms, though generally defined in any individual article, are often interchanged throughout the literature. For the purposes of this paper, each term will be used as defined in the paper.

proceedings. In sum, this office responds to unorganized interests by representing clients whose interests are not presently presented to the agency.

Clearly, the appointment of counsel or compensation of private counsel to represent nonregulated interests would be a radical departure from the present practice, but it would be entirely consonant with present law. In fact, most federal regulatory agencies already have the power to appoint counsel to represent unrepresented groups and to assure that such groups are adequately financed. Unfortunately, these powers have seldom been used. For example, the Interstate Commerce Act provides:[189]

> The Commission may employ such attorneys as its finds necessary for proper legal aid and service of the Commission or its members in the conduct of their work, or for proper representation of the public interest in investigations made by it or cases or proceedings pending before it, whether at the Commission's own instance or upon complaint, or to appear for or represent the Commission in any case in court; and the expense of such employment shall be paid out of the appropriations for the commission.

A similar law exists within the Civil Aeronautics Board (CAB) and the Postal Rate Commission (PRC) with less formal offices within the Small Business Administration (SBA) and the Federal Maritime Commission (FMC).[190] Several states have established offices similar to the federal ones including New York, California, Connecticut, Vermont, Missouri, Indiana, New Jersey, Montana, and Maryland.[191] This list of state offices is not based upon a complete search of all state public counsel offices. Much of the state experiences with public counsel offices is in utility ratemaking before state public service commissions.

The need for such an office was explained by the Department of Justice brief in opposition to the FCC's (Federal Communications Commission) refusal to approve a reimbursement agreement between a public interest group and a license as part of the settlement of their dispute:[192]

> Without the prospect of reimbursement for a job well done, many responsible public interest groups will never even begin, let alone continue efforts to improve a licensee's service. No citizens groups could properly prepare and handle a petition to deny before the

> Commission without lawyers to counsel them: professional and specialized assistance is essential. This need is especially acute in the case of those economic and social groups most likely to be the victims of inadequate service.

One question that arises in suggesting an office of public counsel is how one ascertains which interests to represent. There may be a variety of unrepresented consumer interests (for example) which may be conflicting. However, in the current regulatory setup, someone must decide not only on the ultimate balance of all interests, but on the balance of conflicting consumer interests (to continue the example) to be advocated. It may well be impossible to operate such an office on a continuing set of assumptions or a formula for balancing such unrepresented interests. It must be emphasized that under the present system, such questions are not even asked. More importantly, there is little effort to make an attempt to consider the interests of the consumer end of the equation (to further continue the example) of interest balance. The office would at least assure that some unrepresented interests would be represented.

There are some problems with having this office within the agency itself. First, the same institutional base that gives the public counsel its expertise, and consistency of issues, also raises serious questions about the credibility and independence of such an office. The internal advocate would still be part of the agency. To that extent, it would be suspected of having a lack of objectivity. In addition, if the advocate opposed its own agency and came into conflict with the agency staff, superiors, and commissioners, it may become shut out of the decisionmaking process, thereby losing its primary advantage of utilizing the agency's expertise. Finally, even if the office of public counsel were entirely independent within the agency, it may still neglect to represent interest groups who challenge dominant policy assumptions of the agency. Furthermore, the development of positions by the public counsel might foreclose the advocacy of opposing or unrelating interests if the office was construed to represent a subset of unrepresented interests (consumers as opposed to all interests for example).

Much of this criticism can be offset by placing the office outside the agency, but still within the government structure. The National Association of Attorneys General recommended that an attorney general represent the public before the regulatory agency. At least twelve states do intervene on behalf of consumers in opposition to utility rate increases.[193] In order to maintain the effectiveness, credibility, and independence of the office, the U.S. Senate Study on Federal Regulation recommended the following criteria:[194]

(a) They should be statutorily established and provided with a separate appropriations budget line.

(b) The director of each office should have complete administrative authority over the office.

(c) The office should be empowered to intervene with full party status in agency proceedings.

(d) The office should be empowered to seek judicial review of agency decisions.

(e) The office should have consumer complaint-handling responsibilities.

(f) The office should be permitted to advise and assist independent groups who seek to represent broad interests.

2. The Department of Citizen Advocate

A second approach for institutionalizing public participation in regulatory agency proceedings is the creation of a "department of citizen advocate." A variety of different types of this office has been proposed with the history of the concept going back to the "New Deal." Bills have passed in both houses of the Congress for the Agency for Consumer Advocacy, a cabinet level Department of Consumer Affairs [a Consumer Protection Agency], and a bill introduced for a Public Counsel Corporation. All but the Public Counsel Corporation were limited to issues involving consumer protection. This department is analogous to the office of public counsel discussed previously, but differs in two important respects. First, the department, as conceived, would not represent clients, but, rather, would determine on its own which interest or interests are not represented and represent those. The second difference is that this department was never conceived to be part of any regulatory agency, primarily for the reasons noted in the

discussion of the office of public counsel above. This department would be charged with power to initiate rulemaking in a regulatory agency (with the regulatory agency retaining control of the proceedings), intervene in regulatory agency activities directly as a party, and seek judicial review of agency decisions, as is necessary.

Most of the discussion has centered on a department to represent consumer interests, which is a subset of the multitude of unrepresented interests. The reason why the representation of consumer interests are often thought of as the primary purpose of this type of department is because Congress has focused on this subset of unrepresented interests for the last 15 years. There are two basic reasons why Congress has done this. First, much of what government does has a direct or indirect economic component that ultimately affects the general public as consumers of goods and services. Second, as political scientist Anthony Downs has noted, since people consume in a wide variety of areas, but produce in only one, they will concentrate their attention and political efforts in their area of production rather than their many areas as consumers. Consequently, product groups will within any given policy area exert more influence than consumers.[195] The U.S. Senate Study on Federal Regulation has shown this to be true.[196] Basically, while consumer concerns before regulatory agencies are enormously important in the aggregate, they are far more important to the individual business or small groups of businesses than they are to any particular consumer. As a result, the individual consumer generally has no rational economic incentive to invest the necessary time and resources to protect his interest in an agency proceeding. Conversely, the businessman has such incentives.

While the majority of the attention in Congress has focused on consumer interests, there are many other interests as well. Extensive debate has taken place in the Administrative Conference of the United States on representing the poor. With respect to representing the poor before federal agencies, the Administrative Conference recommended that "federal agencies should engage more extensively in affirmative, self-

initiating efforts to ascertain directly from the poor their views with respect to rulemaking that may affect them substantially...." They suggested the wisdom of creating a "People's Counsel" to "represent the interests of the poor in all federal administrative rulemaking substantially affecting the poor...[and] to provide representative for organizations and groups of the poor who seek judicial review of administrative action...."[197]

Elsewhere, to provide yet another example of unrepresented interests, the Minnesota Department of Administration in their 1976 Advocacy/Ombudsman Study pointed out the need for the handicapped, aged, infirmed and developmental disabled to have a complaint handling service (ombudsman) and have their interests represented in governmental decision making. The report recommended that a "general ombudsman office" and "advocacy/advisory functions...should be centralized at the executive level of the proposed department of health and social services."[198]

A study of the congressional hearings and a review of the literature reveal six reasons against the creation of such a department: (1) it is inappropriate to institutionalize an interest advocacy function; (2) the department will not present a balanced view; (3) the department would create "dual prosecutions;" (4) the department will overshadow other interest groups; (5) the department will be unable to represent diverse interest viewpoints; and (6) the department will create more bureaucracy and delay.[199]

Careful consideration of the arguments behind these reasons show them to be without substance. First, the creation of an advocacy department to represent non-interest or having a Civil Aeronautics Board advocate the economic health of the airline industry. The list is nearly endless. Second, the purpose of the department is to represent unrepresented interests before another agency or court responsible for making the decision. The department's purpose is not to represent every interest, rather, only those nonregulated interests which are not represented. Third, the "dual prosecutor" problem rests on the argument that if a regulatory agency is already proceeding to

enforce its regulation against the regulated interest, why should participation by another agency be necessary? It must be noted that a vast quantity of administrative proceedings do not involve enforcement activities. They include such activities as ratemaking, licensing, certification, standard setting and other rulemaking. There is no dual prosecutor problem in these cases. In addition, even in enforcement actions, agencies establish broad policy and establish future guidelines which may have a major impact on nonregulated interests. If nonregulated interests were to be barred from these proceedings, it would infringe markedly on the office's ability to represent nonregulated interests. Fourth, the purpose of the agency is not to take the place of nonregulated interests groups (consumer, environmental, poor, etc.), but to evaluate in each proceeding in which the agency contemplates to intervene which interests are not being represented. In other words, the agency supplements the activity of nonregulated interests, not supplants them. Fifth, the public interest requires "a balanced judgment based on consideration of all segments of the national economy." The agency would not represent the broad public interest any more than the regulated interest or a consumer or environmental interest would. The agency proposing the rule, rate, license, enforcement proceeding, etc., is the agency charged with finding the balance that represents the public interest. The advocacy agency's function is to make sure that more interests are presented to the agency than just the regulated interest. The policy of such an agency is not to represent the public interest, but to insure a pluralism of interests in the decisionmaking proceeding so that the decision can be based on all interests which make up the public interest. Sixth, the issue of delay transcends any debate on the creation of an office to represent nonregulated interests. As an issue it is applicable to any mechanism to enhance public participation. Therefore, it will be dealt with in section 3.3C of this chapter.

Several studies have evaluated the concept of an office of citizen advocate. The U.S. Senate study identified five functions an office of citizen advocate should have. Such an office should "(1) have full intervention and participation rights to

advocate . . . interests before the . . . agencies, and the . . . courts; (2) undertake studies and disseminate information of importance to [nonregulated interests]; (3) serve as an [interest] complaint clearinghouse (ombudsman); (4) possess authority to obtain information needed to carry out its function; and (5) have adequate funding to assume these responsibilities."[200] In 1975, the Center for Public Representation, Inc. conducted a study: The Public Intervenor in Wisconsin. This office, which is limited to water and natural resources advocacy, was created in 1967. The study offered six recommendations to improve the Wisconsin office: "(1) improve public intervenor resources [for example, New Jersey's Department of Public Advocate employs 792 people with an annual budget of $15.8 million];[201] (2) clearly define the role of the Public Intervenor as that of Advocate; (3) establish and apply appropriate criteria for case selection; (4) increase Public Intervenor status; (5) make it clear that the Attorney General is ultimately accountable for the actions of the Public Intervenor as with all other assistant attorneys general; and (6) create a citizens' board to advise the Public Intervenor and improve accountability."[202] In Minnesota, in addition to the 1976 Department of Administration study noted earlier, the Power Plant Siting Advisory Committee has recommended that an advisor committee should be created to advise the MEA and "participate in actions on specific certificate of need applications and become a party if it wished as provided in EA 506(a) to federal, state and local agencies. . . ." (emphasis added).[203] In addition, Minnesota has partially created such a department, though of a limited nature, the Office of Consumer Services with the establishment of the consumer services section (M.S. § 45.17) whose responsibility it is to represent the consumer interest in public utility matters before the Public Service Commission.[204]

3. Center for Intervention and Technical Assistance.

The concept for a center for intervention and technical assistance is a variation on the office of public counsel concepts. The idea for this center grew out of the Legal Services Program of the Community Services Administration (formerly known as

OEO Legal Services (Office of Economic Opportunity)). Under this concept, attorneys would represent the interests of their clients, the nonregulated interests of public participants, and would be free from control by the agency in whose proceedings they were participating.[205] Iowa law professor Arthur Bonfield in evaluating the Administrative Conference's report, which recommended the creation of the Office of People's Counsel for the poor, suggested the wisdom of having a private body rather than an agency represent the poor.[206]

A number of advantages have been suggested for the creation of a private agency. First, by being outside the "establishment", the center's representative may be more closely tied to and identified with the needs of the client, than if it were a governmental agency. Second, a nongovermental agency may be able to communicate with the public better than an official one. Third, a nongovernmental agency may be less susceptible to being "captured" by the ideas and values of the government agencies before which it would represent the client's interest. Fourth, such a nongovernmental center may be less susceptible to intimidation by the government. Fifth, a private body may be more flexible and thus better able to experiment and be innovative in the performance of its functions than a governmentally based equivalent agency. Other advantages of independent legal centers include the ability to build up specialized expertise; to have a known administrative budget; elimination of the lawyer entrepreneur; and a more efficient attorney staff utilization.[207]

Some of the arguments against using the center concept for providing counsel to intervenors are (1) that the center or other private organizations might not be as influential or effective in agency proceedings as an official governmental agency might be; (2) a private center may not, in and of itself, be as effective a mechanism as an agency might be in convincing the poor and other nonrepresented interests that the government really wants their interests represented in the process; (3) a private

center might be more susceptible to capture by the interests of a small segment of the public with the result that it might only represent the interests of that small segment, rather than that of the public as a whole; (4) a private center might not be able to attract and hold skilled trial-attorneys necessary for effective representation; and (5) the center concept might stifle attorney initiative and ideas stemming from private representation.

The technical assistance aspect of the center concept is to provide intervenors with information and technical assistance necessary to effectively represent their interest before the regulatory agency or court. As a recent NSF sponsored study noted: "there is, at present, no mechanism for independent study of the scientific and technological issues involved in nuclear power cases. Such independent study could serve as an important input into a decision process which weighs the beneficial and harmful impacts of nuclear power plants."[208] Part of the difficulty facing intervenors is their ability to gain access to technical expertise. Many times they lack funds to hire experts or commission studies which support their position. Moreover, many scientists are reluctant to provide assistance to some intervenors, a reluctance that has nothing to do with technical aspects of the subject (see section 3.1E(1) of this chapter for more background on this point).

The advantages for a separately funded technical center are (1) a number of scientists who presently work for government and industry might be better able to resist peer pressure and assist intervenors if they know alternative employment exists; (2) a center would reduce pressure on the governmental agency to provide expertise for intervenors, thereby reducing conflicts of interest within the agency; and (3) a center which provides both counsel and technical expertise can provide for an interdisciplinary approach to representing unrepresented interests in technical proceedings.[209] The need to provide information and assistance has been strongly endorsed by the Administrative Conference (see section 3.2B of this chapter for more information).[210] The idea of a

private mechanism to promote citizen understanding of technological issues was strongly recommended by the NSF sponsored study noted above: "We recommend that a mechanism be established (perhaps with private foundation funding) to permit the exchange of information among citizen groups about substantive issues and about the process, techniques, tactics, and strategies of public involvement."[211] The difficulties with the technical assistance aspect to the center are similar to the difficulties associated with the legal aspects to the center concept.

4. Representing the Unrepresented

The analysis of the three preceding proposals suggests that no single proposal has yet been created that effectively meets the competing needs of the demand for increased public participation. Attorney Terrence Murphy, Vice Chairman of the Trade Regulation Committee of the ABA Section of Administrative Law noted that "although a perfect solution may not be at hand" a citizen advocacy office [212]

> "should not be viewed as a substitute for internal Offices of Public Counsel or other vehicles for bringing the public's various interests to the attention of decisionmakers. Nor is a multiplicity of independent, i.e., nonofficial, 'public' spokesmen in a single proceeding necessarily to be avoided. If the 'public interest' is pluralistic in nature as opponents of 'public interest' participation have themselves frequently asserted, there is no inherent reason why more than one 'public' participant cannot be admitted to a proceeding. There may be repesentatives of nongovernmental groups, agency Public Counsel, independent agencies established to provide representation, or any combination thereof. The test should not to be the label 'public,' as opposed to 'industry,' or other so-called 'special interest' but simply the net benefit to be gained from allowing participation proposed in light of the relevant factors. . . ."

A similar recommendation was offered by Wisconsin economist Burton Weisbrod and Wisconsin law professor Joel Handler in their study Public Interest Law: An Economic and Institutional Analysis: "no single institutional mechanism, private or public, PIL [public interest law firm] or other, is capable of correcting all the shortcomings of an economic and social system. A variety of institutional devices are needed."[213] Any attempt to cure the poor's or any other interest's lack of representation in rulemaking or other governmental activity requires a number of remedies rather than a single one.

RECOMMENDATION: THE LEGISLATURE SHOULD CREATE A VARIETY OF INSTITUTIONAL MECHANISMS TO EFFECTIVELY PROVIDE REPRESENTATION FOR UNREPRESENTED INTERESTS IN GOVERNMENTAL DECISIONMAKING. THREE MECHANISMS SHOULD BE ENACTED: (1) AN OFFICE OF PUBLIC COUNSEL SHOULD BE CREATED IN EACH REGULATORY AGENCY TO REPRESENT NONREGULATED CLIENTS IN ADJUDICATORY OR RULEMAKING PROCEEDINGS UNDER THE ADMINISTRATIVE JURISDICTION OF THE ATTORNEY GENERAL; (2) A DEPARTMENT OF CITIZEN ADVOCATE SHOULD BE CREATED ON A CABINET LEVEL TO AUGMENT THE REPRESENTATION OF UNREPRESENTED INTERESTS IN AGENCY DECISIONMAKING; AND (3) A CENTER FOR INTERVENTION AND TECHNICAL ASSISTANCE [OR GROUP OF CENTERS] SHOULD BE CREATED TO ASSIST INTERESTED PERSONS AND GROUPS WHO WISH TO INTERVENE IN AGENCY DECISIONMAKING OR IN JUDICIAL REVIEW OF AGENCY DECISIONS. THE OFFICE OF PUBLIC COUNSEL, THE DEPARTMENT OF CITIZEN ADVOCATE AND THE CENTER FOR INTERVENTION AND TECHNICAL ASSISTANCE SHOULD (1) BE STATUTORILY ESTABLISHED AND BE PROVIDED WITH A SEPARATE APPROPRIATIONS BUDGET LINE; (2) THE DIRECTOR OF EACH OFFICE SHOULD HAVE COMPLETE ADMINISTRATIVE AUTHORITY OVER THE OFFICE; (3) EACH OFFICE SHOULD BE EMPOWERED TO INTERVENE WITH FULL PARTY STATUS IN AGENCY PROCEEDINGS; (4) EACH OFFICE SHOULD BE EMPOWERED TO SEEK JUDICIAL REVIEW OF AGENCY DECISIONS; (5) THE OFFICE OF PUBLIC COUNSEL SHOULD HAVE PUBLIC COMPLAINT HANDLING RESPONSIBILITIES; (6) THE OFFICE OF PUBLIC COUNSEL AND THE CENTER FOR INTERVENTION AND TECHNICAL ASSISTANCE SHOULD BE PERMITTED TO ADVISE AND ASSIST, INCLUDING THE UNDERTAKING OF STUDIES AND INFORMATION DISSEMINATION, INDEPENDENT GROUPS AND INDIVIDUALS WHO SEEK TO REPRESENT BROAD INTERESTS BEFORE GOVERNMENT AGENCIES; (7) EACH OFFICE SHOULD POSSESS ADEQUATE AUTHORITY TO OBTAIN INFORMATION NEEDED TO CARRY OUT THEIR FUNCTIONS; AND (8) EACH OFFICE SHOULD HAVE ADEQUATE FUNDING TO ASSUME THESE RESPONSIBILITIES.

The issue of developing mechanisms to represent unrepresented interests transends just energy related decision making. Therefore, this recommendation is applicable to any government function that involves rulemaking or contested case activities. Consequently, the office of public counsel should be established in all agencies of state government and the department of citizen advocate and center for intervention and technical assistance should participate before all agencies of state government.

3.3 Assuring Public Participation

The mechanisms to improve public participation discussed in the previous section do not in and of themselves assure that effective public participation, by those who wish to represent themselves, will take place. Complex technologies, such as those involved in electric power generation, which are subject to extensive governmental regulation, cannot be dealt with overnight. People require time and resources in order to organize their positions and information into an effective effort to state their case. Consequently, the timeliness of citizen participation and the availability of resources to state their position are two crucial components of nonregulated interest representation. If the multitude of interests which make up the public is to effectively present its interest in governmental decision-making processes, then adequate time and resources are a necessity. Therefore, this section will examine these two components (timeliness and resources) in assuring public participation.

A review of the literature indicates that the primary fear of increased public participation on the part of the regulated interests is that this participation will cause tremendous delays before a decision is made. Since the problem of delay is so often used to argue against public participation, this aspect of increased public participation must be examined as well. Therefore, this section will also review the causes of delay, to the extent that this issue has been studied, and will review suggestions offered to minimize delay in governmental decision-making.

A. Timing Public Participation

Any discussion of the timeliness of public participation invariably results in a discussion of the planning process for siting and routing energy facilities and lines. There are a number of issues both economical and technological to be decided in generating and transmitting electric power. These include the size, type, and location of the facility, questions of safety and reliability, concerns about air and water, and land use factors. The timing of these decisions comport with the realities of

"systems planning" or "systems engineering", which is the application of the "scientific method" to a technological system, business or group of businesses, i.e. the analysing and organizing of a system of interrelated technologies to perform a function such as the generation, transmission, or use of electric power.

The timing of the decision-making process must also deal with the reality of the multitude of factors that affect the utilization of a technology. Such factors include the lead times necessary to order equipment, to generate capitol (no pun intended), to purchase and/or condemn land, and to meet the requirements of government regulation whether economic, technological, or environmental. A summary of this planning process is as follows:[214]

> The planning department of the utility will assemble the information each year needed to make an intermediate-range or ten-year plan. This plan will include, first, estimates of the amount of power expected to be demanded by the system's customers a decade hence. Second, there will be estimates of new generating and transmission capacity needed to meet the increase in demand and retire older plants. Third, there will be specification of perhaps four or five general areas where the new facilities could go to meet the demand expected in ten years. At this ten-year stage, the utility will submit this type of intermediate-range plan to the power pool and/or regional reliability council to which the utility is attached. The reliability council or power pool will then discuss these plans of their members in the context of the overall characteristics of the region. At the end of this process, each utility will come away with a fairly precise idea of how much capacity it will need to build to meet future needs reliably, and have several alternate ideas of its general location.
>
> The utility will then go into more detail as to the availability of specific sites and the types of plants suitable to the sites. Given the length of time needed to build a nuclear plant, and to get its license, the utility will have to opt for a nuclear plant at least eight years before it is needed. If this eight-year point goes by, the utility is committed by default to a fossil plant. From seven to five years before a fossil plant is needed, the utility will engage in pre-design engineering. With the range of specific potential sites narrowed to a few, its engineering staff will rough out the basic aspects of plants on the sites. This will include the means of generation, the size of the plant, the general location of boilers, generators, fuel storage areas, and cooling systems, and finally estimates of emissions expected to the air and water. At the same time, the utility will be getting a fairly precise idea of the availability and cost of fuel at the particular sizes. Approximately five years before the plant is needed to come into operation, the

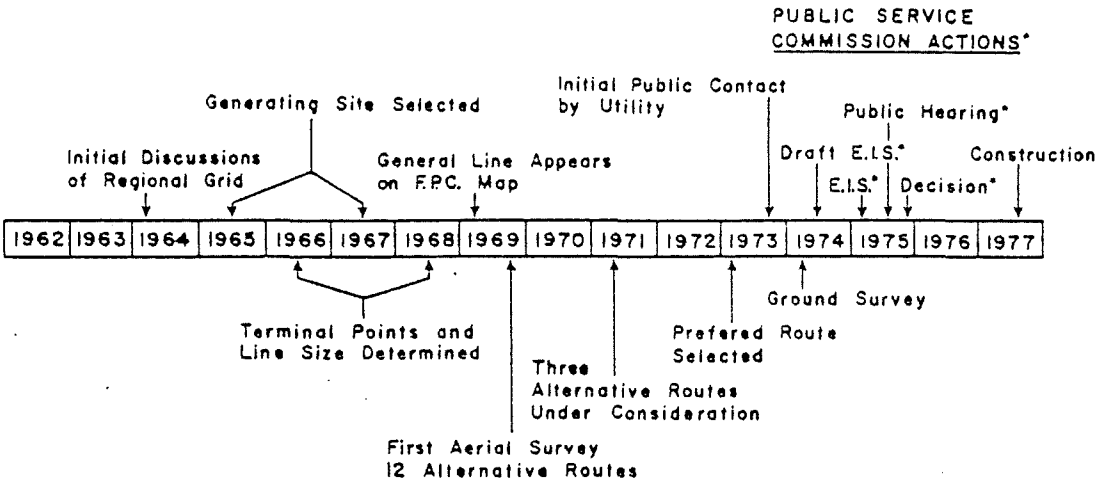
> utility will make a final choice of the site, begin to submit applications, order the necessary equipment, and enter into definite contracts for the supply of fuel.
>
> Thus, at present, choices for nuclear plants must be made eight years before they are needed and choices for fossil plants five years before they are needed. But, part of this lead time is necessitated by the licensing process itself. In actual construction time, a nuclear plant takes only about four years to build, and a fossil plant about three years. Some equipment, such as reactor vessels and turbines, must be ordered before these times, but this equipment can usually be used at a variety of sites or sold to another utility.

A time line for the construction of an HVTL is shown in Figure 3-1. As may be seen, the time between the initiation of the planning process and the end of all construction may be as long as 14 years. "Final decisions in early site review procedures may be made 10, 12, or even more years before expected operation. An application for a construction permit may not be filed until five years after a site has been approved."[215]

Governmental contact begins three to four years prior to construction. Public contact takes place either in an information meeting held by the government or in formal public hearings held as a part of a specific decision-making process. These decisions include the determination of need, siting plants and lines, permitting facilities, drafting an EIS and, as a separate function, the determination of rates. Governmental contact takes place toward the end of the planning process and public contact takes place after the utility has made its decision and after extensive utility communication has taken place with the agencies. Table 3-2 shows the decision times and minimum notification times to the public to participate in these decisions in Minnesota. As may be seen, the public usually obtains notice of a pending decision 30 days prior to the hearing on the decision. The U. S. Senate Study on Federal Regulation has noted that "some agency proceedings provide inadequate time for effective public participation" (the study specifically noted the NRC and FPC procedures).[216] In addition, the decision-making time for all need, siting, EIS and permit decisions is from a minimum of two and one-half years and probably does not exceed four years. In sum, the public becomes involved only after the utility has made its decisions

FIGURE 3-1

HYPOTHETICAL TIME LINE OF EVENTS FOR AN ELECTRICAL ENERGY FACILITY



Source: Smith, T. W., Transmission Lines: Environmental and Public Policy Considerations, Institute for Environmental Studies, University of Wisconsin - Madison, June 1977, p. 61.

TABLE 3-2

DECISION TIME AND PUBLIC NOTIFICATION TIME FOR ENERGY DECISIONS

DECISION ACTIVITY		DECISION TIME	MINIMUM NOTIFICATION TIME TO PUBLIC
MEA CERTIFICATE OF NEED		6 MONTHS FROM APPLICATION (M.S. §116H.13, Subd. 5)	30 DAYS FOR BOTH RULES & APPLICATION (M. S. §116H.13, Subd. 1 and 4)
MEQB:	ANNUAL HEARING	NOT APPLICABLE	45 DAYS (M.S. §116C.58
	SITING	1 YEAR + 6 MONTHS EXTENSION (M.S. §116C.57, Subd. 1)	30 DAYS[a] (M. S. §116C.58)
	ROUTING	1 YEAR + 90 DAYS EXTENSION (M.S. §116C.57, Subd. 2)	30 DAYS[a] (M.S. §116C.58)
MEQB:	ER FOR C. OF N.[b] (MEA)	20 DAYS PRIOR TO START OF HEARING TO END OF 6 MONTHS (6 MCAR §3.025G(a))	20 DAYS PRIOR TO START OF HEARING (6 MCAR §3,025G(a) & §3.035A)
	ER FOR SITES[c]	30 DAYS PRIOR TO CONCLUSION OF HEARING TO END OF 1 YEAR (6 MCAR §3.025G(b))	30 DAYS PRIOR TO CONCLUSION OF HEARING (6 MCAR §3.025G(b))
	EIS on LEPGP[d]	120 DAYS FOR DEIS INDETERMINATE FOR FEIS (6 MCAR §3.029A AND §3.025G)	20 DAYS PRIOR TO INFORMATION HEARINGS DEIS INDETERMINATE FOR FEIS (6 MCAR §3.029A & B)
	ER FOR CORRIDORS[e]	20 DAYS PRIOR TO CONCLUSION OF HEARING TO END OF 1 YEAR (6 MCAR §3.025G(d))	20 DAYS PRIOR TO CONCLUSION OF HEARING (6 MCAR §3.025G(d))
	EIS FOR HVTL[f]	FEIS BEFORE ROUTE DESIGNATION INDETERMINATE (6 MCAR §3.025G(e))	20 DAYS PRIOR TO INFORMATION HEARING DEIS - FEIS INDETERMINATE, BUT PRIOR TO ROUTE DESIGNATION. (6 MCAR §3.029B & §3.025G(e))
MEQB:	PERMITS[g] AGENCY	INDETERMINATE	30 DAYS FOR AGENCY HEARINGS[a]
	EPCR	185-205 DAYS (M. S. §116C.28)	35 to 45 DAYS FOR EPCA HEARING (M.S. §116C.27)
	EPCR-JOIN	185-205 DAYS (M.S. §110C.28)	45 DAYS FOR JOINT HEARINGS (6MCAR §3.106)
PSC:	RATES	1 YEAR (M.S. §216B.16, Subd. 2)	30 DAYS[a] (M.S. §216B.16, Subd. 2)
	SERVICE AREA DESIGNATION	12 DAYS OR MORE (M.S. §216B.17)	10 DAYS (M.S. §216B.17)

a Statute refers to Minnesota Statute, Chapter 15 (Administrative Procedures Act) which provides for 30 day notification time for both hearings (M.S. §15.0412) and contested cases (M.S. §15.0413, .0421 and 9 MCAR §2.103 and 2.2048).

b Environment Report for a Certificate of Need

c Environmental Report for sites for Large Electric Power Generating Plants (LEPGP).

d Draft and final Environmental Impact Statement (DEIS and FEIS) for LEPGP.

e Environmental Report from corridors for HVTLs' (High Voltage Transmission Lines).

f Draft and final EIS on line routes for HVTLs.

g Permits are issued by agencies, separately, through MEQB, or with MEQB.

and after the utility has had extensive ex parte communication with the agencies.

The planning and decision-making process which permits internal decisions by government and utilities and permits public involvement only at the last stages of governmental decision-making is incompatible with the recent trend and demand by the public for participation in the decision-making processes.[217]

> The basic problem lies in the fact that utilities make internal judgements based on their evaluations of economics and operational needs--although increasingly tempered in recent times by their interpretation of the public will. While the basic process is obviously valid and must continue, it has one fundamental weakness. The "public" (however one chooses to define it) does not have an opportunity to participate until after the decision is made and after the point of no return is passed. Many institutions are finding that this procedure is no longer acceptable, e.g., universities, the organized church, government. (emphasis not added).

The process for licensing a power plant purports to involve important issues such as the need for a facility; specific site; safety, air and water emissions; and the protection of the public health. In theory, this review takes the form of one or more applications, hearings, and reasoned decisions based on a record or records. In practice most issues are resolved in private negotiations between agencies and the utility. As Attorney Clifford P. Case, III of the New York State Urban Development Corporation has noted: "Since the utility and the agency have reached an agreement before the proposed facility is revealed to the public, the hearing process becomes a hollow ritual with the agency and the utility defending their bargain. Even when intervenors offer a contest, the agency almost invariably sticks by its bargain with the applicant."[218] It has been well documented that the overwhelming majority of agency actions are taken in an informal manner, without public notice or an opportunity given for public comment.[219] Even when the public may know about a proposed agency decision, their efforts to influence that decision usually consist of inexpensive, informal actions such as meetings with officials, letter writing and information requests.

The ex parte communication between industry and agencies take place in two ways.

First, ex parte communication takes place in industry-agency committees concerned with broad-based issues. There are numerous joint councils which by excluding the public blurs the distinction between public and private roles. Numerous examples of this exist on the federal level. There are 46 separate utility-commission committees to formulate codes and standards for nuclear facilities.[220] The former FPC (Federal Power Commission) advisory committees, which work on growth projections and power surveys, are dominated by utility officials.[221] The second way ex parte communication takes place is in industry-agency negotiations. It is a common practice for utilities and agencies to negotiate requirements regarding specific facilities before an application is filed. Consequently, "by the time an application receives a public hearing, a bargain has been struck on all major issues....Even before the utility has finalized plant design, numerous efforts are made to agree on issues privately. Equipment designers, architect designers, and the utility representatives discuss with the....regulatory staff such issues as hardware specifications, design, and siting, usually receiving informal staff assurances that particular choices are acceptable."[222] This is particularly true for nuclear and hydro-electric projects.[223] The regulated interests, whether it be business, industry, unions, trade associations, etc., do not restrict their impact to informal contacts or letters, but employ extensive resources to effectively influence via lobbying, formal presentations, agency intervention, and court actions. The Constitution provides the right of all groups and individuals to seek redress when they are affected by governmental decision-making. Therefore it has been proposed that the planning process be redesigned to include extensive public input in addition to the already extensive utility input.

An applicant for a power plant usually feels confident that the license or certificate will be granted because of the important role played by industry-agency committees and because of the applicant-agency bargaining process occurring prior

to the submission of the application and the hearing. There is no case on record of the AEC (now the NRC) ever denying an application to construct or operate a nuclear power plant after it has reached the hearing stage. During 50 years of operation the FPC has denied only two applications to construct a hydro-electric plant because of environmental reasons. In no case has the Corp of Engineers refused to grant a construction permit for a fossil-fueled power plant. The record at the state level is similar, with few cases of applications being denied after the hearing stage.[224] In addition, the applicant and the agency views are also similar, not only on the granting of the license, but also on any stipulations to be included with the license. As noted in a report to the Administrative Conference of the U. S., the absence of conflict (adversarial give-and-take) at the hearing between the utility and agency undercuts the evidence-testing function of the adversarial process. Since intervenors often lack resources and information, they can only infrequently and partially do the agency's job of submitting the applicants case to critical examination.[225] Momentum can also be a problem. In the Seabrook nuclear plant licensing proceeding, the denial from the Atomic Safety and Licensing Appeal Board to halt the construction pending review of the case contained reference to the fact that $73 million has already been spent on the plant for studies and engineering.[226]

The New York Bar Association report Electricity and the Environment concluded that "it is the timing of today's decision-making process which creates many of the problems. Applications are usually not submitted until the actual design of the plant is fairly well advanced. At this time, the reliability council, power pool, and utility have been planning on the existence of the new plant for several years. By this time also, the utility will have already put out firm orders for equipment and arranged for fuel contracts. When an application for a fossil plant is submitted, time has foreclosed the possibility of the utility's need being satisfied by a nuclear plant."[227]

1. Agencies as Negotiators

This lack of public conflict does not mean that the whole process is merely a rubber stamp. Agency pressure does result in applications being modified or withdrawn prior to the hearing. These negotiations, however, are the antithesis of the very purpose of the hearing. After negotiating, the agency is called upon to judge a bargain it has already agreed to. Changes at this point would probably be expensive and maybe impossible (in assuring the reliability of the pool), simply because so much time was spent in negotiations.[228] By this time, the utility has already ordered equipment, purchased land, and invested in plant design. Consequently, the pressure from the applicant is great ($73 million in the Seabrook case as noted earlier).[229]

An important question is whether the agencies are good negotiators. This is a very difficult question to answer since an outside observer may have trouble in evaluating the substance of bargains made in secret, both because of its secrecy and its complexity. In addition, the bargaining begins out of balance because no one is representing the interests of the consumer, poor, environment, etc. A number of factors tend to show that the agencies are poor bargainers. First, agency structure might require it to have a conflict of interest. The agency might be required to promote a technology on one hand and regulate the user of a technology on the other. A report to the Chairman of the Administrative Conference recognized that "subtle forms of bias can result from agency structure" and that "bodies like the Army Corp of Engineers which are essentially 'construction agencies' tend to favor structural alternatives when confronted with a problem."[230] In addition, not only must agencies be a promoter and a regulator, but they assume other conflicting tasks as well--counseling and advising applicants and then judging the applications. As Florida's Governor Reubin Askew said of his public utility commission: "I submit that we have assigned too many difficult roles to the commission and its staff together. We have asked them to function not only as judge and jury, but as investigator, prosecutor, defense attorney, and enforcer as well. It is obvious that these roles are incompatible."[231]

A second factor that places the agency in a poor bargaining position is lack of staff. Agencies have very complicated tasks to perform including rates supervision, capitol structure, service, safety, need, environmental impact, and others. Often these agencies are poorly staffed. The Minnesota Energy Agency employs the equivalent of only one and one-half people to review environmental factors in the certificate of need application.[232] This application results in a certificate that makes a decision on size, type, and timing; three factors which have significant environmental consequences. The lack of staff means that the agency will often rely on utility data. The Minnesota Supreme Court in Peer v. MEQB noted that "there seems to be an unfortunate tendency by agencies to rely too heavily on the applicant's research when preparing an EIS."[233] Consequently, it becomes difficult to negotiate a good bargain when you must rely on the other person's data.

Another factor that affects an agency's ability to negotiate good bargains is outside pressure. One avenue that has been suggested is the extra-record influence applied to commissioners and top staff of the various agencies. Generally, they spend much more time talking with industry representatives than with environmental, consumer, or other groups. Other possible sources of influence include the legislature, the governor, and the governor's staff. James Landis in his report to President-elect Kennedy warned of the unconscious effort of continual contact and lobbying. "It is the daily machine-gun like impact on both agency and its staff of industry that makes for industry orientation on the part of many honest and capable members as well as agency staffs."[234] Clifford Case, III elaborates.[235]

> Agency staff at all levels are under subtle pressures that can undermine their neutrality. Middle-level civil service employees must make decisions during the bargaining process that may have multi-million-dollar consequences for large utilities and giant equipment manufacturers. Since these companies and their lawyers can get at least an audience at high levels, employees might be apprehensive of writing reports that might damage their opportunities for advancement. There are many dedicated engineers and scientists at the AEC, for example, who take to heart their

> responsibility for licensing nuclear plants, and it seems unlikely they would consciously decide for a utility-applicant in a situation where substantial danger was involved unless they believed such a decision was justified by the facts. Yet many decisions involve trading-off huge costs against a slight reduction in the miniscule risk of a huge disaster, and most issues are clouded by scientific uncertainty.

In addition, conflicts between staff and the applicant rarely involve clear-cut issues, and standards and criteria for decision-making are far from clear. Consequently, outcomes may depend on an unconscious bias. As a report to the Administrative Conference noted, the complex issues involved in licensing "exacerbate the risk of partiality, because of the nebulous standards of decision, very limited role of stare decisis (precedence) and potentially large numbers of interests affected--many of them possessed by non-parties, who may well be tempted to employ extra-record influence."[236]

Consequently, outside influence, poor staffing, and conflicting roles all undermine an agency's ability to bargain effectively. Private negotiations between the utility and the agency cannot be depended upon to yield decisions in the public interest. Public hearings are the theoretical mechanism used to rectify the situation. But a hearing becomes a farce or a sham when both the agency and the applicant have an interest to defend the previously bargained position. Non-regulated interests have tried to introduce additional views and courts have ordered the agencies to consider these additional sources of information (see section 3.1E of this chapter). Unfortunately, when the agency is party to the bargain, it naturally perceives intervenors at best as a nuisance or at worst as an attacking enemy, rather than a helping hand. Since the costs of rescinding a previously negotiated position are high for both the utility and the agency, the agency has a strong incentive to discourage participation. This can be done in a number of ways; such as denying information (see section 3.2B, supra) and making intervention costly (see section 3.3B, infra).

Rapid changes in the cases being handled by the agencies can also contribute to inhibiting public participation. First, continually updating and changing figures in support of the utilities' position makes it difficult for the intervenor to keep track of the latest data. The FERC (Federal Energy Regulatory Commission, the modern version of the old Federal Power Commission (FPC)) permits regulated electric wholesalers who sell to distribution utilities to repeatedly update and amend their submitted data filed in support of rate increases. This process has often been described as the "fast paper shuffle." A second practice is the submission of multiple rate applications by the same utility, so that there are several rate applications pending final disposition at the same time. This technique is known as "pancaking," and is particularly bad with the FERC.[237] A third practice is the granting of rate increases with no opportunity for public participation until after the rates go into effect. In Minnesota this practice is known as "rates under bond". The Minnesota Public Service Commission has refunded over 48% of all rates granted under bond to electric, gas, and telephone utilities (39% for electric) totaling $148.7 million.[238] This practice is hard on distribution utilities who pay increased prices before they get their rate increase application submitted and on consumers who may have moved and do not receive a refund if the rate increase is denied in whole or in part.[239] In any instance, the process of automatic rate increase is contrary to the spirit of the Administrative Procedures Act and the trend toward greater public participation. Such actions, as noted above, are inconsistent "with the need for public participation by those directly affected by the decisions."[240]

2. Including the Public Early in the Process

The only way to make public participation effective is to include the public earlier in the planning process. In a recent NRC (Nuclear Regulatory Commission) report, it was recognized that "the establishment of a more systemized energy planning process was to assure full deliberation of all pertinent public policy questions

is recognized as the most important element in improving existing siting mechanisms. The early identification of issues, the early disclosure of utility plans, and the development of reliable forecasting methodologies, including all factors impacting on energy use are necessary. The assurance of early involvement of the general public can assist in raising salient issues in determining the kinds of relevant information needed for public awareness and understanding."[241] An NSF sponsored workshop concluded that "decision-making would be expedited if public participation could begin at an early stage, before industry plans are fully developed."[242] In another NRC report it was noted that "perhaps more important than the conclusion that public participation is desirable in the interests of efficiency is the conclusion that public participation in a decision as important as the siting of a nuclear or other major power plant is desirable because it is right. Early site review is the point in the licensing process at which public participation, and particularly, local participation in licensing is most important; this report recommends that greater efforts be made to encourage and facilitate participation. The ultimate in public participation would be to allow for and to encourage public involvement in planning at the earliest possible date."[243]

A utility executive is required to make many decisions and take many tentative steps prior to the decision of size, type, and location, and the process of arriving at these decisions is complicated. A brief summary of the process for site selection and the role of the public has been spelled out in the New York City Bar Association report:[244]

> They must raise the money for the construction of the plant and for making the enterprise viable. Any decision which is made with respect to a new plant is fundamental to the financial integrity of the corporation. It is appropriate and not in derogation of the public interest that these officers should make the corporate decisions relating to plant siting, within the framework, of course, of appropriate public decision-making.

> When regulatory review of specific projects begins, full public participation is essential, if one of the prime causes of present frustration--the feeling that a hearing following lengthy industry-agency negotiations in private will reach a foregone conclusion--is to be remedied. Notice should be given when utility contacts with agency staff are initiated and agencies should develop guidelines concerning free availability of documents and access to staff. Those interested should have the opportunity to critique utility and staff plans and discuss their comments with the staff. At the staff's discretion, public groups should also be permitted to participate in utility-staff negotiations. If an adequate degree of public involvement is not achieved through the discretionary approach, further legislative remedies will be required. Utility-staff negotiations are clearly very important in the development of agency positions; opening these negotiations up recognizes their importance and tends to balance resources of information and expertise among utility, staff, and public groups without requiring any overt public support.

How can the utility executive identify and take "public interest" factors into account? The decision is not purely a technical one. The answer, according to California's Institute of Technology, Environmental Quality Laboratory, is "that planning must be opened to the public; the public must be involved in new forms of participative decision-making. And utilities must come to these forums recognizing their validity and freely surrendering the perogative of unilateral decision-making. This, however, leaves the central question of who the "public" is, and who effectively speaks for the public. As to this, there is no general theory. . .However, recent successful attempts to involve the public seem to have the following characteristics: (a) citizen groups are brought in before, not after, the major decisions have been made; (b) utilities are completely open to public discussions and accept the input of any interested party, no matter how 'extreme;' (c) utilities fully disclose all information felt by public spokesman to be relevant to the issues; (d) all sides actively seek to resolve the conflict; and (e) all sides regard adversary proceedings--court actions--as a last resort--to be used only when all other methods of conflict resolution have failed."[245]

The New York Bar Association reports that "public review of corporate decisions is obviously essential, and once the plans are submitted to government agencies, or applications are filed for specific projects, no question can be raised to full audit and disclosure. If the studies (such as those described above) which have been carried out have been inappropriate or have given inadequate consideration to environmental and other public concerns, the public bodies which have jurisdiction should turn the plans or applications down or perform modifications or propose alternatives: the decisions made by corporate officers must stand public scrutiny. Public opportunity to comment and voice both suggestions and objections prior to final planning decisions will help to relieve pressures when projects which conform to implement such decisions come up for regulatory review." [246] Public review can benefit the utility as well. William and Mary law professor Scott Whitney has noted that "forthright public education through full disclosure and widespread dissemination of the real-world, cost-benefit trade-offs involved in nuclear power, in combination with threshold participation at site selection in really meaningful decision-making, would contribute greatly to the credibility of nuclear power licensing decisions." [247]

A review of the literature reveals six reasons why utilities are reluctant to include the public early in the planning process. First, people are not interested in any plant or line until they see it coming in their backyard. Second, while the utilities can conduct endless informational meetings, the public only responds when their land is threatened. Third, system planning is technical and involves complex decisions and is based on information that the public is unable to effectively utilize, if at all. Fourth, many of the characteristics of a potential plan or line must be negotiated with other companies at a statewide or regional level in order to meet the demands of the pool, well in advance of a specific plant or line. Therefore, public involvement must take place on a state or regional level. Fifth, if the utility presents plans to the public while they are still general and tentative, the utilities will be accused of concealing their true intent. Finally,

if site selection plans are revealed before options are obtained, speculative increases in land prices will follow.[248]

At the same time, "the inaccessibility of data on the plans of utilities for energy development is one of the most deeply felt complaints of citizen intervenor groups. They contend that, often, planning is carried forward in secret by the utilities, or in what some citizens perceive as a kind of conspiratorial utility-regulatory agency relationship, and then sprung on the public for eleventh-hour approval. At that point, the citizens groups face the problem of organizing, raising funds, engaging counsel, obtaining and analysing information, and making their case--all while under the accusation of being responsible for delay."[249] As noted in the U. S. Senate study:[250]

> Not only does this process give the agency staff vested interest in the application as it stands, but the public is usually shut out of the early, and often determinative, stages of the process. In the case of a highly complex and technical procedure such as nuclear licensing, this process is highly crippling to intervenors because the completed application usually runs to 10 to 20 volumes of complex data--and intervenors may have as little as 30 days to respond. This is not only a problem for intervenors, but for the decision-making process itself. Allowing intervenors into the process earlier and giving them more time to respond would focus their concerns on the most important issues. As it now stands, intervenors are sometimes forced to clutch at straws and critical issues may be missed or considered in a cursory manner.

A 1977 study, sponsored by the University of Wisconsin, concluded in response to utility arguments:[251]

> These difficulties are real enough, but they should not prevent questions triggered by a specific line from penetrating all levels of decision-making, whether these questions be about route, line need, or generating station need and location. The direction power distribution is taking--large, centralized power plants with equally large transmission grids--is only one of the many directions in energy supply open to us. The public should be allowed into the decision-making process regarding the system to be planned.
>
> Public involvement in the routing process is a reality, and in some cases, it is reasonably effective. A number of techniques are available for successfully involving the public en route selection. When planning the whole system, the public must be involved every step of the way. This requires that needed transmission facilities be publicized at the same time as the needed generating facilities,

> because the public is not generally aware of the extent to which transmission facilities are increasing.

Though changes in the process in the last ten years have tended toward the accommodation of citizen intervention, these new policies, like the old ones, help to extend procedural due process while the basic structure of the hearing process to permit citizen input into the decision-making process has not changed. While due process is extremely important, these changes have not yet brought, in the opinion of the NSF sponsored study Citizen Groups and the Nuclear Power Controversy, "any discernable changes in the substance or quality of the interaction among parties to the proceedings."[252]

While it has been suggested that the solution to the problem is to eliminate applicant-agency communications, this could create many new problems.[253] First, such a barrier would inhibit the agency from gathering all the information it needs. Second, if the applicant could receive no feedback whatsoever prior to the conclusion of the hearing process, time would be wasted on dead ends. Finally, it has been suggested that to handle complex technical situations only in an adversarial proceeding would hurt, rather than help the cause of safety.[254] They see the hearing as a discipline (i.e., communication involving a formal practice) of staff work, rather, than a decision de novo.[255]

Assuming that applicant-agency negotiations should continue because they deal in greater depth with the more technical issues than a hearing, the problem still remains on how to open the process to the public to fully aid the value judgements implicit on the utility's and agency's parts as well as provide greater public input into the decision-making process. The New York Bar Association study offered four suggestions:[256]

> First, if the hearing is to be a reasonable discipline on a process in which staff and applicant have reached agreement, the process must be structured so that intervenors in public

> hearings have an opportunity to make their points effectively against opponents with greater resources. Second, some public involvement in commission-applicant negotiations would decrease the need for discipline and increase real participation. Third, reducing the credibility problems of commissions that come from their structure and staffing would give the public more reason to trust the results of negotiations. Fourth, requiring applications to be filed well before a plant was needed and making the selection of site and method of generation a choice among alternatives instead of a yes-no decision would give the hearing process more practical possibilities among which to choose.

3. Open Planning

The solution, as had been previously noted, is more open planning. It is important at this point to define open planning, who should participate, and how it fits into the total process of technological, environmental, and sociological decision-making. It is also important to realize that there is no singularly "right" answer, but a variety of potential answers depending on the time available for the planning process, the geographic area involved, the credibility of the utility in question in the eyes of the public, the nature and attitude of the public critics, and, most importantly, the degree of openness and flexibility of alternatives available to the participants. In short, the definition of an open planning process is one which actively seeks input, ideas, and evaluations. Participative decision-making utilizes open planning as a means of determining the needs of the public. As a result, the success or failure of the open planning process depends on the quantity and quality of active public participation.[257] The following suggestions have been offered to determine who the public is and how the process should work:[258]

1. "Public" and "government" are, of course, not synonymous. One cannot rely only on the regulations and standards of federal, state, or local authorities as a means for determining public needs.

2. The "general public" or a balanced cross section of the public is not the "public" of interest in this process either. The active, involved and concerned public are partisan groups and these groups will unavoidably involve critics, who would at first sight, seem to complicate the planning process.

3. Particular individuals should not be sought out, but rather representatives suggested by organizations.

4. Relying solely on consultants, no matter how concerned towards the environment they may be, should not be construed as open planning. This method will only increase problems of credibility for both the institutions and the consultants involved, because lacking the backing of partisan groups they can be more easily suspected of subservience to the power industry.

5. No matter how radical, unrealistic or unqualified certain spokesmen for different points of view may appear to be, they should be allowed to express their point of view and participate in the debate.

If a corporation decides to utilize an open planning forum it should work with the public in the pre-decision stage. Initiating this process after major decisions have been made immediately places the company in a defensive posture, and a generally unproductive (for all concerned) advocate/adversary environment will prevail.

If, as noted earlier, final decisions for size, type and location may be made 10 to 12 years prior to expected operation, then there should be plenty of time for early review and input into these decisions without stretching out the process. A recent NRC study recommended that "at least 18 months should pass between the first full public notice of an application and the opening of a site qualification hearing. The period is necessary to give citizens and groups that are not in a position to react quickly adequate time to determine whether to become involved and to prepare a competent case. The 18-month period is also appropriate for any intervenor that may wish to accumulate or to request the accumulation of those types of baseline data which are seasonally dependent. Preparation of detailed studies by utilities would not be required prior to notice of application; they could be performed during the following 18 months. That period would also be used for pre-hearing conferences and informational meetings. . . ."[259] The study on public participation by the Metropolitan Waste Control Commission with regard to the chemical waste landfill

demonstration project, an issue which is at least as complicated as nuclear or coal power plant siting concluded that "two years prior to the site selection process is judged to be the minimal time required for a successful public participation program."[260]

Two other NRC studies have concluded that "early notification of the proposed project to all affected local governments is necessary to plan for impacts and request outside funding. Early notification can provide adequate lead time (estimated to be three years for the construction of certain public facilities) to construct and expand the needed facilities" (emphasis not added).[261] And, "that applications for site qualification be required to be filed earlier than is now the case--at least three years before the fabrication of major plant components is expected to begin. At the ensuing adjudicatory hearing all site-specific and plant-specific issues which can be handled prior to the existence of a plant design should be conclusively resolved."[262]

The Office of Science and Technology in its 1970 report Electric Power and the Environment recommended "that as a general rule the utilities should inform the public of all tentative site selections at least five years in advance of construction and publish their specific plans for the location and pertinent features of power plants and EHV transmission line routes at least two years in advance of scheduled construction."[262] The NSF-sponsored study Citizen Groups and the Nuclear Power Controversy recommended that the public "be informed of any plans for the construction of a nuclear power plant at the earliest time possible and no fewer than five years in advance of the planned beginning of construction."[263]

Numerous studies have concluded and recommended that public participation in planning is important. An NRC study has concluded that "public participation in siting matters is an essential ingredient of the siting process. Participation should occur at the earliest time possible in energy planning, energy growth questions, lead forecasting, and in site identification and analysis activities."[264] A National

Governors' Association NRC workshop concluded that "greater public participation in energy siting processes is necessary and desirable, particularly because of the large scale, financial cost, and impact of decisions involving modern power plants . . . and that efforts should occur at the earliest possible stages."[265] Another NRC study has concluded that "public participation in the licensing process should be encouraged and allowed at a time early enough and in such a form that it will have meaningful impact on important decisions" as a matter of 'principle'."[266] The California Institute of Technology, Environmental Quality Laboratory's report recommended that since "the public interest in the environment is as important as the traditional economic and technical considerations that usually determine the design and location of power plants, utilities should, therefore, admit all spokesmen for the public interest, no matter how "extreme", to the power plant planning process from the very beginning. The courts should be the last resort, not the first opportunity for the public to be heard." (emphasis not added).[267]

In addition, other studies have recommended more specifically that notice should take place of the early application to the agency; all documents submitted by the utility should be a matter of public record, with the public able to comment on them; the participation by the public should take place before options are foreclosed, but as late as possible; that the utility and the agency staff communicate, but no ex parte communication take place with commissioners or other officials who must make decisions; and that no rate increases should go into effect until after a decision is made.[268]

In sum, the planning process must provide adequate lead times: for the utilities to cooperate in detailed planning to insure the reliability of the pool; for adequate review of the technological feasibility for size, type, and location and the consistency of these choices with environmental standards; for effective public participation; for the development of adequate information on the proposed alternatives of size, type, and location; and for impartial selection and

certification of the size, type, and location.

RECOMMENDATION: THE PUBLIC SHOULD BE PERMITTED TO BECOME INVOLVED IN THE PLANNING DECISIONS RELATING TO ENERGY DECISION-MAKING AT AN EARLY DATE. APPLICATIONS FOR CERTIFICATES OF NEED AND SITE COMPATIBILITY AS WELL AS ROUTE DESIGNATION SHOULD TAKE PLACE AT LEAST TWO TO FIVE YEARS EARLIER THAN AT PRESENT. NOTIFICATION OF THE APPLICATION SHOULD BE UNDERTAKEN AS RECOMMENDED EARLIER. EX PARTE COMMUNICATION WITH AGENCY DECISION-MAKERS SHOULD BE PROHIBITED. ALL DOCUMENTS FILED SHOULD BE A MATTER OF PUBLIC RECORD AS RECOMMENDED EARLIER.

RECOMMENDATION: THE MINNESOTA PUBLIC UTILITIES ACT SHOULD BE AMENDED TO PROHIBIT RATE INCREASES UNTIL AFTER THE PUBLIC SERVICE COMMISSION MAKES A DECISION.

In sum, the present process is neither fair nor expeditious nor democratic in any substantive or meaningful way. "It is marked by the manipulation of scientific and technological information by all parties in order to substantiate their pre-determined points of view. It is a system evidently designed by lawyers for the consideration of legal issues and does not deserve to resolve important issues of science and technology and of human and physical ecology which are likely to accompany the construction and operation of . . . plants. The process is characterized by the confrontation of a special interest group (utilities)--affluent, influential, deep in manpower and financial resources, supported in contentions by statistics of growing population and increased consumption of electricity and by recollections of brownouts and blackouts of recent years, and aligned with other powerful (vendors) interests and . . . an ad hoc, underfunded, disparate group of citizens seeking to ward off or otherwise influence the imposition of a technology which they feel is unacceptable and inherently dangerous" (the author is referring to nuclear power here).[269]

"In the future less and less will any institution be able to decide unilaterally what its particular public should have. More and more, the corporate task will be to determine what its particular public wants and then do it. In the case of public

utilities, that is another way of asking: What is the public willing to pay for? Utility obligation will more and more involve a complete disclosure of facts, and less and less will it involve passing judgement on those facts." (emphasis not added).[270] Permitting public participation in the planning process will enable people to present their views in a more accurate and probative manner and allow them to enter the decision-making process at the outset, rather than at the end. In the long run, providing public participation early will be effective because it channels citizen action in a positive and constructive manner, thereby preventing protracted and more emotionally charged proceedings at the end.

B. Providing Resources for Public Participation

The previous section on timeliness of public participation (section 3.3A of Chapter three) noted that most governmental decisions are decided informally and that bias existed in agency policies because the public was excluded from participating in the decisions. The section concluded that it is not wise to eliminate all informal contact, but, rather, to include the public in these informal discussions and provide sufficient lead time in order to permit the public to have adequate time to prepare and inform their discretion. Yet a formal decision-making process must take place at some point to meet the due process requirements of the Constitution as embodied in the Administrative Procedures Act. The necessity of formal procedures and judicial review thereof (when appropriate) to effectuate a more equal representation of interests, which are affected by the decisions (both directly and indirectly), is likely to entail significant costs both in resources and the quality of decision made: To the extent that contested case procedures are required, with the right of all participants to introduce evidence and cross-examine, a considerable amount of expenditure of resources will be involved.

Generally, the public faces an uphill battle to present its views. The U. S. Senate study found:[271]

> On the whole, the data clearly shows that participation by the public or non-regulated interests before Federal regulatory agencies is consistently exceeded by the participation of regulated industries, and often constitutes only a tiny fraction of such industry participation. The pattern holds for both rulemaking and adjudication, although the margin is not as great for rulemaking as it is for adjudication. The data also suggests that in all types of proceedings, regulated interests commit far greater resources to participate before regulatory agencies than their public interest counterparts . . . A number of representative samples of the costs of participation . . . clearly show that industry spends considerably more than public interest groups. In some cases the comparisons were dramatic, with ratios of 50 to 1 or more. In all cases, industry spending on participation was many times more than public interest groups spent on participation.

Once the decision to intervene by a public interest group is made, the primary difficulty encountered is limited funds. For example, the cost of participating as a party in a plant licensing proceeding can exceed $100,000.00, with the money being spent for lawyer and expert witness fees, transcripts, and multiple copies of papers for filing.[272] As William Hutton, executive director of the National Council of Senior Citizens, has noted, the elderly "can't put up any money to even get advice" let alone travel to the seat of government.[273] An NSF-sponsored study which examined citizen groups in the nuclear power controversy concluded:[274]

> One of the most significant problems facing intervenor groups is that they rely, for the most part, on voluntary financial contributions. Difficulty in obtaining adequate funds to assume a full role throughout protracted licensing proceedings seriously limits the nature of citizen group input to the hearing process. It also creates an aura of uncertainty as to whether or not they will participate until a final decision is reached, a decision which may ultimately entail appear to the courts.
>
> The cases we have examined lead to the conclusion that full-scale citizen interventions in opposition to construction or operation of a nuclear power plant cost in the neighborhood of $75,000-$100,000. The largest portion of the cost pays for lawyers fees and for the preparation of documentation.
>
> Provision of adequate funds to citizen intervenors could, by removing the difficulties of logistics and the dependence on voluntary contributions of time and effort, eliminate the necessity for some considerable procedural delays. Such simple tasks as typing, duplication and distribution of briefs to all parties often strains the very limited financial and manpower resources of intervenor groups and is, in the course of an entire proceeding, expensive. In sum, the experience of some federal and state agencies has shown that economic realities, irrespective of considerations of policy, may impede the full development of public participation in governmental decision-making.

If participation by interested citizens is to mean more than the submission of general arguments, statements of values, and pointing out an agency's inadequate consideration of certain issues without supporting documentation or expertise,

the problem of resources for public participation must be overcome. "Assuring the legal rights of public interest representatives to participate in regulatory proceedings is a vital first step. It is, however, only a first step. Without further affirmative action to assure that public representatives actually appear, the legal right to participate will largely be symbolic--perhaps merely a cosmetic--advance."[275] Today, the main controversy is whether public participation should be financed with public finds or some similar arrangement, and what form such financing should take. As the U. S. Senate study noted [276]

> comparing public interest group costs to industry costs is like comparing David to Goliath. Effective participation in a regulatory proceeding does indeed depend on the quality and extent of one's legal counsel. It also depends upon the quality and extent of expert testimony and technical submissions. It requires ample administrative and clerical resources, costs which are frequently taken for granted. Yet time after time, industry is able to spend 10, or 50, or 100 times as much money on participation as public interest groups. The persistence and ingenuity of the public interest groups in their efforts to participate effectively is laudable, but their lack of resources to insure adequate representation is lamentable.
>
> When these figures are considered alongside the data on extent of participation, we believe they make a convincing case that corrective steps--both legislative and administrative--are necessary to remedy this imbalance.

In addition, the longer the hearing, the greater the financial burden placed on all parties. "Thus, there is a real danger that the hearing will be reduced to a war of attrition--a test of staying power in which the party with the most adequate resources will inevitably prevail independent of the validity of its case. Obviously citizen groups, which rely on voluntary contributions by supporters who can realize no financial benefits from their donations, are at a distinct disadvantage" when the process is prolonged.[277] In short, "it may not be enough. . . for a public participant to be permitted to merely testify or even file a legal brief. Fact development, very often including expensive, highly

technical studies by experts whose testimony would be subject to cross-examination and who require substantial preparation time, may be essential. Means must be found for meeting that need, thus putting into practice in the real world the policies regarding participation now dictated by basic principles."[278] As the National Academy of Public Administration has noted, the public are at a clear disadvantage compared to utilities because they have no means of covering the costs of legal and technical advisory fees. They concluded that the utilities can always pass the costs on to the ratepayers. In addition the utilities have access to better legal staffs and technical information.[279]

There are four aspects of public participation that have proved to be especially costly and, hence, constitute barriers to participation. These include multiple copy rules, high transcript charges, expert witness and study charges, and attorney fees. The issues of multiple copies, transcript charges, and access to agency expertise have been addressed earlier (see section 3.2B and section 3.2D(3) of chapter three). Since, the need to employ attorneys and outside experts is great, these two issues are reviewed below (for the purposes of this paper, "legal fees" will include both attorney fees and expert witness charges). In addition, the pros and cons of financing public portrayal will be examined.

1. Judicial and Agency Authority to Provide Financing to Intervenors

Traditionally, a successful litigant in a civil action in the U. S. generally pays for his own legal fees.[280] These legal fees are not included in the costs which are normally charged against the loser. There are, however, exceptions to this general rule. Statutes can authorize awards of legal fees, with such awards being either mandatory or discretionary. The judicial exceptions to the rule are the result of the courts power to "fashion a just remedy" and embody general principles that apply to widely diverse situations. Many commentators have suggested the abolition of the general or traditional rule.[281] Yet, the courts have approached the issue by broadening the application of "equitable exceptions" rather than create a new rule to deal with the issue. There are three equitable

or "fee shifting" exceptions to the general rule. These include the "bad faith", "equitable fund", and "private attorney general" exceptions. The bad faith exception is applied whenever a party to a suit "attempts to avoid his clear legal duties or to harass his adversary without justification."[282] The court usually responds by shifting the legal fees to the recalcitrant or harrassing adversary.[283] The equitable fund exception has two categories: the monetary "common fund" doctrine and the non-monetary "substantial benefit" variation. The common fund exception applies whenever a litigant in an individual or representative capacity creates, preserves or increases a fund, and the pecuniary benefits extend to a definite class of people.[284] The substantial benefit variation arose in Mills v. Electric Auto-Lite Company in which the court recognized that the common fund doctrine is to prevent the unjust enrichment of fund beneficiaries at the expense of the plaintiff, and that the court could award legal fees whether or not the fund was a pecuniary asset, and that the award was appropriate when the fund constituted a non-monetary benefit and the court had jurisdiction over material assets out of which the legal fees could be paid.[285] The Mills case was actually a combination of both the substantial benefit and private attorney general exceptions. The court noted that private actions brought to vindicate public policy have intrinsic value to the public. The effect of these two exceptions are similar, i.e. the award of legal fees, yet, the rationale for the awards are different. The substantial benefit exception awards fees against the beneficiaries of the action to prevent unjust enrichment. The private attorney general exception awards fees against the defendant because the plaintiff has vindicated a strong public policy, benefitted a large class of people, and protected legal rights which otherwise would not have been protected, and, thus, served the public interest.[286]

How do these exceptions affect actions against administrative agencies? There is little likelihood that the bad faith or equitable fund doctrines would ever be applied to administrative agencies. Few, if any, administrative proceedings result in the creation or protection of an equitable fund. Nor, except in quasi-judicial proceedings, will any party be likely to impose unnecessary litigation on another. While some parties may harass other parties by abusing administrative proceedings, such harassment will be difficult to show given the vagueness of most administrative mandates. The private attorney general exception, however, may apply to a great range of administrative proceedings. In order to obtain an award of legal fees a plaintiff must show: (1) whether the award is necessary in order to encourage litigation in the public interest; and (2) whether it is just to impose the award on a particular litigant.[287] The Supreme Court has, however, curtailed the private attorney general exception in Alyeska Pipeline Service Company v. Wilderness Society by requiring that the doctrine may only be applied where Congress and presumably the legislature specifically provides for fee shifting.[288] Congress has done so in many instances as may be seen in Table 3-3. The Court held that, because of all the statutes which required or permitted fee shifting, Congress had accepted the general rule inasmuch as it had provided exceptions to it by statute.

For a while it was assumed that administrative agencies, as quasi-judicial bodies, had authority to order fee shifting in the same kind of situation as the courts. In the third Office of Communications of United Church of Christ v. FCC, the D. C. Circuit Court overturned the FCC's decision in which the FCC denied attorney's fees to an intervenor in which the fees were payable as part of a settlement between the intervenor and the broadcaster.[289] However, in Turner v. FCC, the Court upheld the FCC's decision to deny attorney fees, absent a written, voluntary agreement between the parties, without a clear grant of statutory authority by Congress.[290] This followed the earlier decision in Greene County Planning Board v. Federal Power Commission which held that "without a clear

TABLE 3-3

FEDERAL STATUTES PROVIDING FOR AWARD OF ATTORNEYS' FEES

Federal Contested Election Act

2. U.S.C. § 396: "The committee [on House Administration of the House of Representatives] may allow any party reimbursement from the contingent fund of the House of Representatives of his reasonable expenses of the contested election case, including reasonable attorneys fees. . . ."

Freedom of Information Act

5 U.S.C. § 552(a)(4)(E): "The court may assess against the United States reasonable attorney fees and other litigation costs reasonably incurred in any case under this paragraph in which the complainant has substantially prevailed."

Privacy Act

5 U.S.C. § 552a(g)(3)(B): "The court may assess against the United States reasonable attorney fees and other litigation costs reasonably incurred in any case under this paragraph in which the complainant has substantially prevailed."

Federal Employment Compensation for Work Injuries

5 U.S.C. § 8127: "A claim for legal or other services furnished in respect to a case, claim, or award for compensation under this subchapter is valid only if approved by the Secretary [of Labor]."

Packers and Stockyards Act

7 U.S.C. § 210(f): "If the defendant does not comply with an order for the payment of money within the time limit in such order, the complainant, or any person for whose benefit such order was made . . . [may sue in a United States District Court]. . . . If the petitioner finally prevails, he shall be allowed a reasonable attorney's fee to be taxed and collected as a part of the costs of the suit."

Perishable Agricultural Commodities Act

7 U.S.C. § 499g(b): "If any commission merchant, dealer, or broker does not pay the reparations award within the time specified in the Secretary [of Agriculture's] order, the complainant or any person for whose benefit such order was made . . . [may sue in a United States District Court]. . . . If the petitioner finally prevails, he shall be allowed a reasonable attorney's fee, to be taxed and collected as a part of the costs of the suit."

7. U.S.C. § 499g(c): "Either party adversely affected by the entry of a reparation order by the Secretary may . . . appeal therefrom to the district court of the United States. . . . Appellee shall not be held liable for costs in said court if appellee prevails he shall be allowed a reasonable attorney's fee to be taxed and collected as a part of his costs." [sic]

Agricultural Unfair Trade Practices

7 U.S.C. § 2305(a): "Whenever any handler has engaged . . . in any act or practice prohibited by section 4, a civil action for preventative relief . . . may be instituted by the person aggrieved. In any action commenced pursuant hereto,

TABLE 3-3 (Cont.)

the court, in its discretion, may allow the prevailing party a reasonable attorney's fee as part of the costs."

7 U.S.C. § 2305(c): "Any person injured in his business or property by reason of any violation of . . . section 4 of this Act may sue therefor in the appropriate district court of the United States . . . and shall recover damages sustained. In any action commenced pursuant to this subsection, the court may allow the prevailing party a reasonable attorney's fee as a part of the costs."

Plant Variety Act

7 U.S.C. § 2565: "The court in exceptional cases may award reasonable attorney fees to the prevailing party."

Bankruptcy Act

11 U.S.C. § 104(a)(1): "The debts to have priority . . . shall be . . . one reasonable attorney's fee, for the professional services actually rendered, irrespective of the number of attorneys employed, to the bankrupt in voluntary and involuntary cases, and to the petitioning creditor in involuntary cases. . . ."

11 U.S.C. § 109: "Whenever a petition is filed to have a person adjudged a bankrupt and an application is made to have a receiver or a marshal take charge of the property of the bankrupt, or any part thereof, prior to the adjudication, the applicant shall file in the same court a bond . . . conditioned to indemnify the bankrupt for such costs, counsel fees, expenses, and damages as may be occasioned by such seizure . . ."

11 U.S.C. § 205(c)(12)—Railroad Reorganization Act: "Within such maximum limits are fixed by the [Interstate Commerce] Commission, the judge may make an allowance, to be paid out of the debtor's estate, for the actual and reasonable expenses (including reasonable attorney's fees) incurred in connection with the proceeding. . . ."

11 U.S.C. §§ 641-644—Corporate Reorganization Act: § 641—"The judge may allow . . . reasonable compensation for services rendered . . . (3) by the trustee and other officers, and the attorneys for any of them; (4) by the attorney for the debtor; and (5) by the attorney for the petitioning creditors. . . ."

§ 642—"The judge may allow reasonable compensation for services rendered . . . by the attorney or agents for any of the foregoing except the Securities and Exchange Commission.

§ 643—"The judge may allow reasonable compensation for services rendered . . . by creditors and stockholders, and the attorneys for any of them. . . ."

§ 644—"Where a petition is filed under section 127 of this Act, the judge may allow, if not already allowed, reasonable compensation for services rendered. . . . (1) by a marshall, receiver, or trustee . . . , and the attorneys for any of them; (2) by the attorney for the petitioning creditors; (3) by the attorney for the bankrupt. . . ."

Federal Credit Union Act

12 U.S.C. § 1786(o): "Any court having jurisdiction of any proceeding instituted under this section by an insured credit union or a director, officer, or committee member thereof may allow to any party such reasonable expenses and attorneys' fees as it deems just and proper, and such expenses and fees shall be paid by the credit union or from its assets."

Bank Holding Company Act

12 U.S.C. § 1975: "Any person who is injured in his business or property by reason of anything forbidden in section 1972 of this title may sue therefor in any district court of the United States . . . and shall be entitled to recover . . . a reasonable attorney's fee."

Clayton Act

15 U.S.C. § 15: "Any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor in any district court of the United States . . . and shall recover . . . a reasonable attorney's fee."

Hart-Scott-Rodino Antitrust Improvements Act of 1976 (Public Law 94-435, §§ 301, 302)

Title III Parens Patriae—15 U.S.C. § 15c(a)(2): "The court shall award the State [illegible] thereof [illegible] damages sustained as described in paragraph (1) of this subsection, and the cost of suit, including a reasonable attorney's fee."

15 U.S.C. § 15c(d)(2): "[T]he court may, in its discretion, award a reasonable attorney's fee to a prevailing defendant upon a finding that the State attorney general has acted in bad faith, vexatiously, wantonly, or for oppressive reasons."

15 U.S.C. § 26: "In any action under this section in which the plaintiff substantially prevails, the court shall award the cost of the suit, including a reasonable attorney's fee, to such plaintiff."

Federal Trade Commission Improvement Act

15 U.S.C. § 57a(h)(1): "The [Federal Trade] Commission may, pursuant to rules prescribed by it, provide compensation for reasonable attorneys fees, expert witness fees, and other costs of participating in a rulemaking proceeding under this section. . . ."

Unfair Competition Act

15 U.S.C. § 72: "Any person injured in his business or property by reason of any violation of, or combination or conspiracy to violate, this section, may sue therefor in the district court of the United States . . . and shall recover . . . a reasonable attorney's fee."

Securities Act of 1933

15 U.S.C. § 77k(e): "In any suit under this or any other section of this title the court may, in its discretion, require an undertaking for the payment of the costs of such suit, including reasonable attorney's fees. . . ."

Trust Indenture Act

15 U.S.C. § 77ooo(e): "The indenture to be qualified may contain provisions to the effect that all parties thereto, including the indenture security holders, agree that the court may in its discretion , . . assess reasonable costs, including reasonable attorneys' fees, against any party litigant. . . ."

15 U.S.C. § 77www(a): "[T]he court may, in its discretion . . ., assess reasonable costs, including reasonable attorneys' fees, against either party litigant."

Securities Exchange Act of 1934

15 U.S.C. §§ 78i(e), 78r(a) (1970): Any person who willfully participates in a manipulation of securities prices may have suit brought against him in law or at equity by a party who bought or sold a security affected by the transaction. The court may, in this discretion, assess reasonable costs, including reasonable attorneys' fees, against either party litigant. § 78i(e).

Jewelers Hall-Mark Act

15 U.S.C. § 298(b): "Any competitor, customer, or competitor of a customer . . . may sue . . . and shall recover . . . a reasonable attorney's fee."

15 U.S.C. § 298(c): "Any duly organized and existing trade association . . . may sue . . . and if successful shall recover . . . a reasonable attorney's fee."

15 U.S.C. § 298(d): "Any defendant against whom a civil action is brought . . . shall be entitled to recover . . . a reasonable attorney's fee, in the event such action is terminated without a finding by the court that such defendant is or has been in violation of sections 294 to 300 of this title."

Trademark Act

15 U.S.C. § 1117: "The court in exceptional cases may award reasonable attorney fees to the prevailing party."

National Traffic and Motor Vehicle Safety Act of 1966

15 U.S.C. § 1400(b): "In the event any manufacturer or distributor shall refuse to comply with the requirements of paragraphs (1) and (2) of subsection (a) of this section, then the distributor or dealer, as the case may be, to whom such nonconforming vehicle or equipment has been sold may bring suit against such manufacturer or distributor . . . and shall recover . . . reasonable attorneys' fees."

Truth in Lending Act (as amended by Public Law 94-240, § 4, Consumer Leasing Act)

15 U.S.C. § 1640(a): "[A]ny creditor who fails to comply with any requirement under this part or [the Fair Credit Billing Act or Consumer Leasing Act] [illegible] to [illegible] liable [illegible] in [illegible] sum of [illegible] . . . a reasonable attorney's fee as determined by the court."

Fair Credit Reporting Act

15 U.S.C. § 1681n: "Any consumer reporting agency or user of information which willfully fails to comply with any requirement imposed under this subchapter with respect to any consumer is liable to that consumer in an amount equal to the sum of— . . . reasonable attorney's fees as determined by the court."

15 U.S.C. § 1681o: "Any consumer reporting agency or user of information which is negligent in failing to comply with any requirement imposed under this subchapter with respect to any consumer is liable to that consumer in an amount equal to the sum of— . . . reasonable attorney's fees as determined by the court,"

Equal Credit Opportunity Act (as amended by Public Law 94-239)

15 U.S.C. § 1691e(d): "In the case of any successful action under subsection (a), (b), or (c), the costs of the action, together with a reasonable attorney's fee as determined by the court, shall be added to any damages awarded by the court under such subsection."

Motor Vehicle Information and Cost Savings Act

15 U.S.C. §1918(a): "Any owner of a passenger motor vehicle who sustains damage as a result of a motor vehicle accident because such vehicle did not comply with any applicable Federal bumper standard under this subchapter may bring a civil action against the manufacturer of that vehicle . . . to recover the amount of those damages, and in the case of any successful action to recover that amount, costs and reasonable attorneys' fees shall be awarded to that owner."

15 U.S.C. § 1989(a)—Odometer Requirements: "Any person who, with intent to defraud, violates any requirement imposed under this subchapter shall be liable in an amount equal to the sum of— . . . In the case of any successful action to enforce the foregoing liability, the costs of the action together with reasonable attorney fees as determined by the court."

Consumer Product Safety Act (as amended by Public Law 94-284, § 10)

15 U.S.C. § 2059(e)(4): "In any action under this subsection the court may in the interest of justice award the costs of suit, including reasonable attorneys' fees and reasonable expert witnesses' fees. Attorneys' fees may be awarded against the United States (or any agency or official of the United States) without regard to section 2412 of title 28, United States Code, or any other provision of law."

15 U.S.C. § 2060(c): "A court may in the interest of justice include in such relief an award of the costs of the suit, including reasonable attorney's fees. . . . Attorneys' fees may be awarded against the United States (or any agency or official of the United States) without regard to section 2412 of title 28, United States Code, or any other provision of law."

15 U.S.C. 2072(a): "Any person who shall sustain injury by reason of any knowing (including willful) violation of any consumer product safety rule, or any other rule or order issued by the [Consumer Product Safety] Commission . . . may, if the court determines it to be in the interest of justice, recover the costs of suit, including reasonable attorneys' fees. . . ."

15 U.S.C. 2073: "In any action under this section the court may in the interest of justice award the costs of suit, including reasonable attorneys' fees. . . ."

Magnuson-Moss Warranty Act

15 U.S.C. § 2310(d)(2): "If a consumer finally prevails in any action brought under paragraph (1) of this subsection, he may be allowed by the court to recover as part of the judgment a sum equal to the aggregate amount of cost and expenses (including attorneys' fees based on actual time expended) . . . unless the court in its discretion shall determine that such an award of attorneys' fees would be inappropriate."

Toxic Substances Control Act (Public Law 94-469, § 20(c)(2))

15 U.S.C. § 2619(c)(2): "The court, in issuing any final order in any action brought pursuant to subsection (a), may award costs of suit and reasonable fees for attorneys and expert witnesses if the court determines that such an award is appropriate. Any court, in issuing its decision in an action brought to review such an order, may award costs of suit and reasonable fees for attorneys if the court determines that such an award is appropriate."

Copyright Act (Public Law 94-553)

17 U.S.C. § 505: "In any civil action under this title, the court in its discretion may allow the recovery of full costs by or against any party other than the United States or an officer thereof. Except as otherwise provided by this title, the court may also award a reasonable attorney's fee to the prevailing party as part of the costs."

Organized Crime Control Act of 1970

18 U.S.C. § 1964(c): "Any person injured in his business or property by reason of a violation of section 1962 of this chapter may . . . sue and shall recover . . . a reasonable attorney's fee."

Wire Interception Act

18 U.S.C. § 2520: "Any person whose wire or oral communication is intercepted, disclosed, or used in violation of this chapter shall . . . be entitled to recover . . . a reasonable attorney's fee. . . ."

Education Amendments of 1972

20 U.S.C. § 1617: "Upon the entry of a final order by a court of the United States against a local education agency, a State (or any agency thereof), or the United States (or any agency thereof), for failure to comply with any provision of this chapter or for discrimination on the basis of race, color, or national origin in violation of title VI of the Civil Rights Act of 1964, or the fourteenth amendment to the Constitution of the United States as they pertain to elementary and secondary education, the court, in its discretion, may allow the prevailing party, other than the United States, a reasonable attorney's fee as part of the costs."

Mexican-American Chamizal Convention Act of 1964

22 U.S.C. § 277d-21: "The Commissioner, in rendering an award in favor of any claimant under section 277d-19 of this title, may, as part of such award, determine and allow reasonable attorneys' fees which shall not exceed 10 per centum of the amount awarded, to be paid out of but not in addition to the amount of the award, to the attorneys representing the claimant. . . ."

International Claims Settlement Act

22 U.S.C. § 1623(f): "No remuneration on account of services rendered on behalf of any claimant in connection with any claim filed with the Commission under this subchapter shall exceed 10 per centum of the total amount paid pursuant to any award. . . ."

Federal Tort Claims Act

28 U.S.C. § 2678: "No attorney shall charge, demand, receive, or collect for services rendered, fees in excess of 25 per centum of any judgment. . . ."

Federal Rules of Civil Procedure

28 U.S.C. App. Rule 37: (a) Motion for order compelling discovery—"If the motion is granted, the court shall, after opportunity for hearing, require the party or deponent whose conduct necessitated the motion or the party or attorney advising such conduct or both of them to pay the moving party the reasonable expenses incurred in obtaining the order, including attorney's fees, unless the court finds that the opposition to the motion was substantially justified or that other circumstances make an award of expenses unjust."

"If the motion is denied, the court shall, after opportunity for hearing, require the moving party or the attorney advising the motion or both of them to pay to the party or deponent who opposed the motion the reasonable expenses incurred in opposing the motion, including attorney's fees, unless the court finds that the making of the motion was substantially justified or that other circumstances make an award of expenses unjust."

(b) Failure to comply with order—"In lieu of any of the foregoing orders or in addition thereto, the court shall require the party failing to obey the order or the attorney advising him or both to pay the reasonable expenses, including attorney's fees, caused by the failure, unless the court finds that the failure was substantially justified or that other circumstances make an award of expenses unjust."

(c) Expenses on failure to admit—"If a party fails to admit the genuineness of any document or the truth of any matter as requested under Rule 36, and if

the party requesting the admissions thereafter proves the genuineness of the document or the truth of the matter, he may apply to the court for an order requiring the other party to pay him the reasonable expenses incurred in making that proof, including attorney's fees. . . .".

(d) Failure of party to attend at own deposition or serve answers to interrogatories or respond to request for inspection—"In lieu of any order or in addition thereto, the court shall require the party failing to act or the attorney advising him or both to pay the reasonable expenses, including attorney's fees, caused by the failure, unless the court finds that the failure was substantially justified or that other circumstances make an award of expenses unjust."

Norris-LaGuardia Act

29 U.S.C. § 107(e): "No temporary restraining order or temporary injunction shall be issued except on condition that complainant shall first file an undertaking with adequate security in an amount to be fixed by the court sufficient to recompense those enjoined for any loss, expense, or damage caused by the improvident or erroneous issuance of such order or injunction, including all reasonable costs (together with a reasonable attorney's fee) and expenses of defense. . . ."

Fair Labor Standards Act

29 U.S.C. § 216(b): "The court in such action shall, in addition to any judgment awarded to the plaintiff or plaintiffs, allow a reasonable attorney's fee to be paid by the defendant, and costs of the action."

Labor-Management Reporting and Disclosure Act of 1959

29 U.S.C. § 431(c): "The court in such action may, in its discretion, in addition to any judgment awarded to the plaintiff or plaintiffs, allow a reasonable attorney's fees to be paid by the defendant, and costs of the action."

29 U.S.C. 501(b): "The trial judge may allot a reasonable part of the recovery in any action under this subsection to pay the fees of counsel prosecuting the suit. . . ."

Employee Retirement Income Security Act

29 U.S.C. § 1132(g): "In any action under this subchapter by a participant, beneficiary, or fiduciary, the court in its discretion may allow a reasonable attorney's fee and costs of the action to either party."

Coal Mine Safety Act

30 U.S.C. § 938(c): "Whenever an order is issued under this subchapter granting relief to a miner at the request of such miner, a sum equal to the aggregate amount of all costs and expenses (including the attorney's fees) . . . shall be assessed against the person committing the violation."

State and Local Fiscal Assistance Amendments of 1976 (Public Law 94-488, § 7 (b))

31 U.S.C. § 1244(e): "In any action under this section to enforce § 1242(a) of this title, the court, in its discretion, may allow to the prevailing party, other than the United States, reasonable attorney fees, and the United States shall be liable for fees and costs the same as a private person."

Longshoremen's and Harbor Workers' Compensation Act

33 U.S.C. § 928: [T]here shall be awarded, in addition to the award of compensation, in a compensation order, a reasonable attorney's fee against the employer or carrier . . ."

Water Pollution Prevention and Control Act

33 U.S.C. § 1365(d): "The court, in issuing any final order in any action brought pursuant to this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate."

33 U.S.C. § 1367(c): "[A] sum equal to the aggregate amount of all costs and expenses (including the attorney's fees), as determined by the Secretary of Labor . . . shall be assessed against the person committing such violation."

Ocean Dumping Act

U.S [illegible] 1415 [illegible]): [illegible] cour[illegible] issu[illegible] ay f[illegible] rder [illegible] ny [illegible] brought pursuant to paragraph (1) of this subsection may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate."

Deepwater Ports Act

33 U.S.C. § 1515(d): "The Court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party whenever the court determines such award is appropriate."

Patent Infringement

35 U.S.C. § 285: "The court in exceptional cases may award reasonable attorney fees to the prevailing party."

Servicemen's Group Life Insurance Act

38 U.S.C. § 784(g): "[T]he court, as a part of its judgment decree, shall determine and allow reasonable fees for the attorneys of the successful party or parties. . . ."

Veterans' Benefits Act

38 U.S.C. § 3404(c): "The Administrator shall determine and pay fees to agents or attorneys recognized under this section in allowed claims for monetary benefits under laws administered by the Veterans' Administration. Such fees . . . shall not exceed $10 with respect to any one claim; and . . . shall be deducted from monetary benefits claimed and allowed."

Safe Drinking Water Act

42 U.S.C. § 300j-8(d): "The court, in issuing any final order in any action brought under subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party whenever the court determines such an award is appropriate."

Social Security Act Amendment of 1965

42 U.S.C. § 406: (a) "Whenever the Secretary, in any claim before him for benefits under this subchapter makes a determination favorable to the claimant, he shall, if the claimant was represented by an attorney in connection with such claim, fix . . . a reasonable fee to compensate such attorney. . . ."

(b) "Whenever a court renders a judgment favorable to a claimant under this subchapter who was represented before the court by an attorney, the court may determine and allow as part of its judgment a reasonable fee for such representation. . . ." (Both subsections (a) and (b) provide for payment out of past-due benefits.)

Clean Air Act Amendments of 1970

42 U.S.C. § 1857h-2(d): "The court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate."

Voting Rights Amendments of 1975 (Public Law 94-73, § 402)

42 U.S.C. § 1973l(e): "In any action or proceeding to enforce the voting guarantees of the fourteenth or fifteenth amendment, the court, in its discretion, may allow the prevailing party, other than the United States, a reasonable attorney's fee as part of the costs."

Civil Rights Attorney's Fees Awards Act (Public Law 94-559)

42 U.S.C. § 1988: "In any action or proceeding to enforce a provision of §§ 1981 to 1983, 1985, and 1986 of this title, chapter 38 of Title 20, or in any civil action or proceeding, by or on behalf of the United States of America, to enforce, or charging a violation of, a provision of the United States Internal Revenue Code, or subch. V of ch. 21 of this title, the court, in its discretion, may allow the prevailing party, other than the United States, a reasonable attorney's fee as part of the costs."

Civil Rights Act of 1964, Title II

42 U.S.C. § 2000a-3(b): "In any action commenced pursuant to this subchapter, the court, in its discretion, [illegible] allow [illegible] prev[illegible] pa[illegible] [illegible]er t[illegible] [illegible]e [illegible]

States, a reasonable attorney's fee as part of the costs, and the United States shall be liable for costs the same as a private person."

Civil Rights Act of 1964, Title VII

42 U.S.C. § 2000e-5(k): "In any action or proceeding under this subchapter the court, in its discretion, may allow the prevailing party, other than the (Equal Employment Opportunity) Commission or the United States, a reasonable attorney's fee as part of the costs, and the Commission and the United States shall be liable for costs the same as a private person."

Legal Services Corporation Act

42 U.S.C. § 2996e(f): "If an action is commenced by the Corporation or by a recipient and a final order is entered in favor of the defendant and against the Corporation or a recipient's plaintiff, the court may, upon motion by the defendant and upon a finding by the court that the action was commenced or pursued for the sole purpose of harassment of the defendant or that the Corporation or a recipient's plaintiff maliciously abused legal process, enter and order . . . awarding reasonable costs and legal fees incurred by the defendant. . . ."

Fair Housing Act of 1968

42 U.S.C. § 3612(c): "The court may grant as relief, as it deems appropriate . . . reasonable attorney fees in the case of a prevailing plaintiff: *Provided*, that the said plaintiff in the opinion of the court is not financially able to assume said attorney's fees."

Omnibus Crime Control and Safe Streets Act of 1968 Amendments

(Crime Control Act of 1976, Public Law 94-503, § 122)—42 U.S.C. § 3766(c)(4)(B): "In any civil action brought by a private person to enforce compliance with any provision of this subsection, the court may grant to a prevailing plaintiff reasonable attorney fees, unless the court determines that the lawsuit is frivolous, vexatious, brought for harassment purposes, or brought principally for the purpose of gaining attorney fees."

Noise Control Act of 1972

42 U.S.C. § 4911(d): "The court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such an award is appropriate."

Solid Waste Disposal Act (§§ 7001(c), 7002(e) as amended by the Resource Conservation and Recovery Act of 1976, Public Law 94-580)

42 U.S.C. § 6971(c): "[A] sum equal to the aggregate amount of all costs and expenses (including the attorney's fees) . . . shall be assessed against the person committing such violation."

42 U.S.C. § 6972(e): "The court, in issuing any final order in any action brought pursuant to this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines that such an award is appropriate."

Railway Labor Act

45 U.S.C. § 153(p): "If the petitioner shall finally prevail he shall be allowed a reasonable attorney's fee to be taxed and collected as part of the costs of the suit."

Merchant Marine Act of 1936

46 U.S.C. § 1227: "Any person who shall be injured in his business or property by reason of anything forbidden by this section may sue therefor . . . and shall recover . . . a reasonable attorney's fee."

Communications Act of 1934

47 U.S.C. § 206: "In case any common carrier shall do, or cause or permit to be done, any act, matter, or thing in this chapter prohibited or declared to be unlawful . . . such common carrier shall be liable to the person or persons injured thereby for . . . a reasonable counsel or attorney's fee, to be fixed by the court in every case of recovery, which attorney's fee shall be taxed and collected as part of the costs in the case."

47 U.S.C. § 407: "If the petitioner shall finally prevail, he shall be allowed a reasonable attorney's fee, to be taxed and collected as part of the costs of the suit."

Interstate Commerce Act

49 U.S.C. § 8: "In case any common carrier subject to the provisions of this chapter shall do, cause to be done, or permit to be done any act, matter, or thing in this chapter prohibited or declared to be unlawful . . . such common carrier shall be liable to the person or persons injured thereby for . . . a reasonable counsel or attorney's fee, to be fixed by the court in every case of recovery, which attorney's fee shall be taxed and collected as part of the costs in the case."

49 U.S.C. § 15(9): "In any judgment which may be rendered the plaintiff shall be allowed to recover against the defendant a reasonable attorney's fee to be taxed in the case."

49 U.S.C. § 16(2): "If the plaintiff shall finally prevail he shall be allowed a reasonable attorney's fee, to be taxed and collected as a part of the costs of the suit."

49 U.S.C. § 20(12): "The common carrier . . . shall be entitled to recover . . . the amount of any expense reasonably incurred by it in defending any action at law. . . ."

49 U.S.C. § 94: "The court may also in its discretion order the payment of the carrier's reasonable costs and counsel fees. . . ."

49 U.S.C. § 908: (b) "In case any carrier shall do, cause to be done, or permit to be done any act, matter, or thing in this chapter prohibited or declared to be unlawful . . . such carrier shall be liable to the person or persons injured thereby for . . . a reasonable counsel or attorney's fee, to be fixed by the court in every case of recovery, which attorney's fee shall be taxed and collected as part of the costs in the case."

(e) "If the plaintiff shall finally prevail he shall be allowed a reasonable attorney's fee, to be taxed and collected as a part of the costs of the suit."

49 U.S.C. § 1017(b)(2): "The party who prevails in any such action may, in the discretion of the court, recover reasonable attorney's fees to be fixed by the court. . . ."

Trading With the Enemy Act

50 U.S.C. App. § 20: "No property or interest or proceeds shall be returned under this Act . . . unless satisfactory evidence is furnished . . . that the aggregate of the fees to be paid to all agents, attorneys at law or in fact, or representatives, for services rendered in connection with such return or payment or judgment does not exceed 10 per centum of the value of such property or interest or proceeds or of such payment."

Japanese-American Evacuation Claims Act of 1948

50 U.S.C. App. § 1985: "The Attorney General, in rendering an award in favor of any claimant, may as a part of the award determine and allow reasonable attorneys' fees, which shall not exceed 10 per centum of the amount allowed, to be paid out of, but not in addition to, the amount of such award."

Source: Study on Federal Regulation: Vol. III: Public Participation in Federal Regulatory Agency Proceddings, U.S. Senate Committee on Government Affairs, 95th Cong., 1st Sess., Doc. No. 95-71, July 1977, pgs 119-127.

the party requesting the admissions thereafter proves the genuineness of the document or the truth of the matter, he may apply to the court for an order requiring the other party to pay him the reasonable expenses incurred in making that proof, including attorney's fees. . . .".

(d) Failure of party to attend at own deposition or serve answers to interrogatories or respond to request for inspection—"In lieu of any order or in addition thereto, the court shall require the party failing to act or the attorney advising him or both to pay the reasonable expenses, including attorney's fees, caused by the failure, unless the court finds that the failure was substantially justified or that other circumstances make an award of expenses unjust."

Norris LaGuardia Act

29 U.S.C. § 107(e): "No temporary restraining order or temporary injunction shall be issued except on condition that complainant shall first file an undertaking with adequate security in an amount to be fixed by the court sufficient to recompense those enjoined for any loss, expense, or damage caused by the improvident or erroneous issuance of such order or injunction, including all reasonable costs (together with a reasonable attorney's fee) and expenses of defense. . . ."

Fair Labor Standards Act

29 U.S.C. § 216(b): "The court in such action shall, in addition to any judgment awarded to the plaintiff or plaintiffs, allow a reasonable attorney's fee to be paid by the defendant, and costs of the action."

Labor-Management Reporting and Disclosure Act of 1959

29 U.S.C. § 431(c): "The court in such action may, in its discretion, in addition to any judgment awarded to the plaintiff or plaintiffs, allow a reasonable attorney's fees to be paid by the defendant, and costs of the action."

29 U.S.C. 501(b): "The trial judge may allot a reasonable part of the recovery in any action under this subsection to pay the fees of counsel prosecuting the suit. . . ."

Employee Retirement Income Security Act

29 U.S.C. § 1132(g): "In any action under this subchapter by a participant, beneficiary, or fiduciary, the court in its discretion may allow a reasonable attorney's fee and costs of the action to either party."

Coal Mine Safety Act

30 U.S.C. § 938(c): "Whenever an order is issued under this subchapter granting relief to a miner at the request of such miner, a sum equal to the aggregate amount of all costs and expenses (including the attorney's fees) . . . shall be assessed against the person committing the violation."

State and Local Fiscal Assistance Amendments of 1976 (Public Law 94-488, § 7(b))

31 U.S.C. § 1244(e): "In any action under this section to enforce § 1242(a) of this title, the court, in its discretion, may allow to the prevailing party, other than the United States, reasonable attorney fees, and the United States shall be liable for fees and costs the same as a private person."

Longshoremen's and Harbor Workers' Compensation Act

33 U.S.C. § 928: [T]here shall be awarded, in addition to the award of compensation, in a compensation order, a reasonable attorney's fee against the employee or carrier . . ."

Water Pollution Prevention and Control Act

33 U.S.C. § 1365(d): "The court, in issuing any final order in any action brought pursuant to this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate."

33 U.S.C. § 1367(c): "[A] sum equal to the aggregate amount of all costs and expenses (including the attorney's fees), as determined by the Secretary of Labor . . . shall be assessed against the person committing such violation."

Ocean Dumping Act

U.S [illegible]): [illegible] court [illegible] issu[illegible] ay f[illegible] der [illegible] ny [illegible] brought pursuant to paragraph (1) of this subsection may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate."

Deepwater Ports Act

33 U.S.C. § 1515(d): "The Court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party whenever the court determines such award is appropriate."

Patent Infringement

35 U.S.C. § 285: "The court in exceptional cases may award reasonable attorney fees to the prevailing party."

Servicemen's Group Life Insurance Act

38 U.S.C. § 784(g): "[T]he court, as a part of its judgment decree, shall determine and allow reasonable fees for the attorneys of the successful party or parties. . . ."

Veterans' Benefits Act

38 U.S.C. § 3404(c): "The Administrator shall determine and pay fees to agents or attorneys recognized under this section in allowed claims for monetary benefits under laws administered by the Veterans' Administration. Such fees . . . shall not exceed $10 with respect to any one claim; and . . . shall be deducted from monetary benefits claimed and allowed."

Safe Drinking Water Act

42 U.S.C. § 300j-8(d): "The court, in issuing any final order in any action brought under subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party whenever the court determines such an award is appropriate."

Social Security Act Amendment of 1965

42 U.S.C. § 406: (a) "Whenever the Secretary, in any claim before him for benefits under this subchapter makes a determination favorable to the claimant, he shall, if the claimant was represented by an attorney in connection with such claim, fix . . . a reasonable fee to compensate such attorney. . . ."

(b) "Whenever a court renders a judgment favorable to a claimant under this subchapter who was represented before the court by an attorney, the court may determine and allow as part of its judgment a reasonable fee for such representation. . . ." (Both subsections (a) and (b) provide for payment out of past-due benefits.)

Clean Air Act Amendments of 1970

42 U.S.C. § 1857h-2(d): "The court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate."

Voting Rights Amendments of 1975 (Public Law 94-73, § 402)

42 U.S.C. § 1973l(e): "In any action or proceeding to enforce the voting guarantees of the fourteenth or fifteenth amendment, the court, in its discretion, may allow the prevailing party, other than the United States, a reasonable attorney's fee as part of the costs."

Civil Rights Attorney's Fees Awards Act (Public Law 94-559)

42 U.S.C. § 1988: "In any action or proceeding to enforce a provision of §§ 1981 to 1983, 1985, and 1986 of this title, chapter 38 of Title 20, or in any civil action or proceeding, by or on behalf of the United States of America, to enforce, or charging a violation of, a provision of the United States Internal Revenue Code, or subch. V of ch. 21 of this title, the court, in its discretion, may allow the prevailing party, other than the United States, a reasonable attorney's fee as part of the costs."

Civil Rights Act of 1964, Title II

42 U.S.C. § 2000a-3(b): "In any action commenced pursuant to this subchapter, the court [illegible] its [illegible]cretion, [illegible] allow [illegible] prev[illegible] pa[illegible]ty[illegible]r [illegible]e [illegible]

States, a reasonable attorney's fee as part of the costs, and the United States shall be liable for costs the same as a private person."

Civil Rights Act of 1964, Title VII

42 U.S.C. § 2000e-5(k): "In any action or proceeding under this subchapter the court, in its discretion, may allow the prevailing party, other than the (Equal Employment Opportunity) Commission or the United States, a reasonable attorney's fee as part of the costs, and the Commission and the United States shall be liable for costs the same as a private person."

Legal Services Corporation Act

42 U.S.C. § 2996e(f): "If an action is commenced by the Corporation or by a recipient and a final order is entered in favor of the defendant and against the Corporation or a recipient's plaintiff, the court may, upon motion by the defendant and upon a finding by the court that the action was commenced or pursued for the sole purpose of harassment of the defendant or that the Corporation or a recipient's plaintiff maliciously abused legal process, enter and order . . . awarding reasonable costs and legal fees incurred by the defendant. . . ."

Fair Housing Act of 1968

42 U.S.C. § 3612(c): "The court may grant as relief, as it deems appropriate . . . reasonable attorney fees in the case of a prevailing plaintiff: *Provided*, that the said plaintiff in the opinion of the court is not financially able to assume said attorney's fees."

Omnibus Crime Control and Safe Streets Act of 1968 Amendments

(Crime Control Act of 1976, Public Law 94-503, § 122)—42 U.S.C. § 3766(c)(4)(B): "In any civil action brought by a private person to enforce compliance with any provision of this subsection, the court may grant to a prevailing plaintiff reasonable attorney fees, unless the court determines that the lawsuit is frivolous, vexatious, brought for harassment purposes, or brought principally for the purpose of gaining attorney fees."

Noise Control Act of 1972

42 U.S.C. § 4911(d): "The court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such an award is appropriate."

Solid Waste Disposal Act (§§ 7001(c), 7002(e) as amended by the Resource Conservation and Recovery Act of 1976, Public Law 94-580)

42 U.S.C. § 6971(c): "[A] sum equal to the aggregate amount of all costs and expenses (including the attorney's fees) . . . shall be assessed against the person committing such violation."

42 U.S.C. § 6972(e): "The court, in issuing any final order in any action brought pursuant to this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines that such an award is appropriate."

Railway Labor Act

45 U.S.C. § 153(p): "If the petitioner shall finally prevail he shall be allowed a reasonable attorney's fee to be taxed and collected as part of the costs of the suit."

Merchant Marine Act of 1936

46 U.S.C. § 1227: "Any person who shall be injured in his business or property by reason of anything forbidden by this section may sue therefor . . . and shall recover . . . a reasonable attorney's fee."

Communications Act of 1934

47 U.S.C. § 206: "In case any common carrier shall do, or cause or permit to be done, any act, matter, or thing in this chapter prohibited or declared to be unlawful . . . such common carrier shall be liable to the person or persons injured thereby for . . . a reasonable counsel or attorney's fee, to be fixed by the court in every case of recovery, which attorney's fee shall be taxed and collected as part of the costs in the case."

47 U.S.C. § 407: "If the petitioner shall finally prevail, he shall be allowed a reasonable attorney's fee, to be taxed and collected as part of the costs of the suit."

Interstate Commerce Act

49 U.S.C. § 8: "In case any common carrier subject to the provisions of this chapter shall do, cause to be done, or permit to be done any act, matter, or thing in this chapter prohibited or declared to be unlawful . . . such common carrier shall be liable to the person or persons injured thereby for . . . a reasonable counsel or attorney's fee, to be fixed by the court in every case of recovery, which attorney's fee shall be taxed and collected as part of the costs in the case."

49 U.S.C. § 15(9): "In any judgment which may be rendered the plaintiff shall be allowed to recover against the defendant a reasonable attorney's fee to be taxed in the case."

49 U.S.C. § 16(2): "If the plaintiff shall finally prevail he shall be allowed a reasonable attorney's fee, to be taxed and collected as a part of the costs of the suit."

49 U.S.C. § 20(12): "The common carrier . . . shall be entitled to recover . . . the amount of any expense reasonably incurred by it in defending any action at law. . . ."

49 U.S.C. § 94: "The court may also in its discretion order the payment of the carrier's reasonable costs and counsel fees. . . ."

49 U.S.C. § 908: (b) "In case any carrier shall do, cause to be done, or permit to be done any act, matter, or thing in this chapter prohibited or declared to be unlawful . . . such carrier shall be liable to the person or persons injured thereby for . . . a reasonable counsel or attorney's fee, to be fixed by the court in every case of recovery, which attorney's fee shall be taxed and collected as part of the costs in the case."

(e) "If the plaintiff shall finally prevail he shall be allowed a reasonable attorney's fee, to be taxed and collected as a part of the costs of the suit."

49 U.S.C. § 1017(b)(2): "The party who prevails in any such action may, in the discretion of the court, recover reasonable attorney's fees to be fixed by the court. . . ."

Trading With the Enemy Act

50 U.S.C. App. § 20: "No property or interest or proceeds shall be returned under this Act . . . unless satisfactory evidence is furnished . . . that the aggregate of the fees to be paid to all agents, attorneys at law or in fact, or representatives, for services rendered in connection with such return or payment or judgment does not exceed 10 per centum of the value of such property or interest or proceeds or of such payment."

Japanese-American Evacuation Claims Act of 1948

50 U.S.C. App. § 1985: "The Attorney General, in rendering an award in favor of any claimant, may as a part of the award determine and allow reasonable attorneys' fees, which shall not exceed 10 per centum of the amount allowed, to be paid out of, but not in addition to, the amount of such award."

Source: Study on Federal Regulation: Vol. III: Public Participation in Federal Regulatory Agency Proceddings, U.S. Senate Committee on Government Affairs, 95th Cong., 1st Sess., Doc. No. 95-71, July 1977, pgs 119-127.

congressional mandate we should not order the Commission or PASNY (Power Authority of the State of New York) to pay the expenses and fees of petitioners."[291]

In light on the Greene, Alyeska, and Turner cases noted above, it is now well settled that the courts may not order involuntary fee shifting against losing private parties in the absence of statutory authorization. Therefore, as the U. S. Senate Judiciary Committee stated in asserting the need for government compensation to participants: "Fee shifting . . . is not a viable mechanism for providing citizens with the financial means to participate in agency proceedings. Until or unless Congress creates a comprehensive statutory response to the Alyeska decision, other means must be found to enable persons to participate effectively in agency proceedings and to seek judicial review of agency decisions."[292]

Since the courts will not uphold fee shifting, absent a clear mandate by the legislative branch, can agencies directly fund intervenors themselves? Agency assistance to persons appearing in administrative hearings was first considered in 1969. In American Chinchilla Corporation, the Federal Trade Commission (FTC), noting that a respondant in an unfair practices hearing was in a similar position to that of a criminal defendant, held that "elemental fairness and concern for the rights of litigants who appear before the Commission require that the Commission see to it that any respondant who requests counsel on grounds of indigency is accommodated," either through a legal aid society or upon petition to the court of appeals for appointment of counsel.[293] In 1972, the FTC asked the Comptroller General whether the FTC could within its limited statutory authority defray transcript, witness and travel expenses of indigent respondents or intervenors. The Comptroller General issued an opinion that it was within the Commission's inherent authority to reimburse indigent parties and intervenors for legal fees and other costs incurred in adjudicatory proceedings.[294]

Most observers have read the Comptroller General's opinion broadly, inferring that the FTC's mandate to ensure proper case preparation would justify defraying legal fees of indigent intervenors.[295] In 1976 following a request from the Nuclear Regulatory Commission (NRC), the Comptroller General in his opinion ruled that the NRC has inherent statutory power "to facilitate public participation in its proceedings by using its own funds to reimburse intervenors when (1) it believes that such participation is required by statute or necessary to represent adequately opposing points of view on a matter, and (2) when it finds that the intervenor is indigent or otherwise unable to bear the financial costs of participation in the proceedings."[296] The Comptroller General clarified his opinion four months later in response to a request from Chairman John Moss of the House Oversight Investigations Subcommittee: "Appropriated Funds of each agency may be used to finance the costs of participation in agency hearings whenever the agency finds that it cannot make the required determination unless it extends financial assistance to certain interested parties who require it, and whose representation is necessary to dispose of the matter before it; and (2) the party is indigent or otherwise unable to finance its participation."[297] Four months later, the Comptroller General again clarified his first 1976 opinion: "FCC appropriations are available to make payments to persons (and organizations) representing an interest in a matter before it when the Commission determines that such payments are necessary to achieve a fair resolution of the matter."[298] The Comptroller General yet again in December 1976 issued another opinion clarifying the previous opinions:[299]

> We did not intend to imply that participation must be absolutely indispensable. We would agree with Consumers Union (which had petitioned FDA for a compensation program) that it would be sufficient if an agency determines that a particular expenditure for participation "can reasonably be expected to contribute substantially to a full and fair determination of the issues before it, even though the expenditure may not be 'essential' in the sense that the issues cannot be decided at all without participation.

How have the courts reacted to these opinions? In 1974, an opinion by the Third Circuit suggested that the Atomic Energy Commission (now the NRC) might have authority to defray attorney fees.[300] This is in contrast to a 1972 Second Circuit decision that held the FPC had no power under its act to order the licensee to pay intervenors' attorney fees or to pay them itself.[301] This change in attitude may be explained by the fact that the Third Circuit opinion took note of the 1972 Comptroller General opinion with regard to the FTC. However, in 1977, the Second Circuit ruled that it is the responsibility of the court not the Comptroller General of the General Accounting Office to determine the legislative intent of Congress. Further, it ruled that the FPC has no statutory authority to make awards for legal fees.[302] This has clearly weakened the Comptroller General's opinions. Even before this opinion, the Comptroller General had warned:[303]

> It would be advisable for the parameters of such financial assistance, and the scope and limitations on the use of appropriated funds for this purpose to be fully set forth by Congress in legislation, as was done in the case of the Federal Trade Commission by the provisions of section 202(a) of the Magnuson-Moss Warranty--Federal Trade Commission Improvement Act.

Since 1975, Congress has passed legislation providing for the FTC and EPA (Toxic Substances Control Act) to finance public participation through the payment of legal fees. In addition, the National Highway Traffic Safety Administration, the Consumer Product Safety Administration, the Civil Aeronautics Board, the National Oceanic and Atmospheric Administration, and DOE's Federal Energy Administration have launched public participation financing programs. In addition, the U.S.D.A., FDA and FCC are currently drafting a public participation financing program.[304] Moreover, the State of New York provides $150,000 (increased to $200,000 in 1978) for public intervention in power plant siting decisions.[305]

In sum, the federal courts have ruled, that absent statutory authority, no federal agency can engage in fee shifting or compensate indigent intervenors directly themselves. The Comptroller General has strongly recommended that the indigent respondents and intervenors be funded, and that Congress has enacted numerous statutes providing for either mandatory or discretionary fee shifting and one statute for direct funding of intervenors.

2. Pros and Cons of Financing Public Participation

It is very difficult to analyze the positive and negative aspects of providing financial assistance to the public. What is perceived to be beneficial in one perspective may be perceived as detrimental or unnecessary to another interest. The implications of public participation can only be analyzed as they relate to the process itself, since no consensus has ever been reached on what constitutes a benefit or cost. As Governor Curtis of Maine has noted: ". . . the way in which a decision is made is frequently as important a safeguard of our way of life as the decision itself."[306] Therefore, the question, as a report analyzing whether the National Science Foundation (NSF) should fund nonprofit citizen organizations suggested, becomes: ". . . is it helpful to policy makers to hear the views of groups which cannot afford to participate in their proceedings or does it unduly burden or frustrate the decision-making process?"[307]

There are four principal arguments in favor of financing public participation. First, citizen organizations have and continue to make significant contributions to the decision-making process. Citizen groups have repeatedly pointed to a wide variety of contributions that they have made to resolving policy conflicts. They further argue that these contributions would be greater if they had greater resources to develop their positions more fully.[308] Both agencies and the courts have commented on the contributions made by citizen organizations. Former EPA (Environmental Protection Agency) administrator William Ruckelshaus

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testified before Congress.[309]

> When I was in the Environmental Protection Agency, it was my experience that the public interest organizations that appeared before the Agency contributed very greatly to my understanding and to the understanding of others in the Agency who were charged with making decisions in the overall public interest. They contributed greatly to not only the process itself, but to a better understanding of those interests that weren't, as a matter of course, represented in those regulatory proceedings.

The Chairman of the Atomic Safety and Licensing Appeals Board, in responding to a disparaging remark by Gulf States Utility Company on the value of intervention by nonprofit citizen organizations noted:[310]

> . . . [we] cannot leave unsaid our total disagreement with such a sweeping condemnation of intervenor participation as being essentially worthless. Our own experience--garnered in the course of the review of initial decisions and underlying records in an appreciable number of contested cases--teaches that the generalization has no foundation in fact. Public participation in licensing proceedings not only can provide valuable assistance to the adjudicatory process, but on frequent occasions demonstrably has done so. It does no disservice to the diligence of either applicants generally or the regulatory staff to note that many of the substantial safety and environmental issues which have received the scrutiny of licensing boards and appeal boards were raised in the first instance by an intervenor.

The Second Circuit commenting in the now infamous case of Scenic Hudson Preservation Conference v. FPC made the following assessment in the litigation over the Storm King installation:[311]

> We do not think that the five years of additional investigation which followed our remand were spent in vain. The petitioners performed a valuable service in that earlier case, and later before the Commission. By reason of their efforts the Commission has re-evaluated the entire Cornwall project. The modifications in the project reflect a heightened awareness of the conflict between utilitarian and aesthetic needs.

Justice Burger in Office of Communication of the United Church of Christ v. FCC noted: "In recent years, the concept that public participation in decisions which involve the public interest is not only valuable but indispensable has gained

increasing support."[312] Finally, Judge Leventhal of the D. C. Circuit in testimony before Congress in 1977 concluded:[313]

> Administrative law and regulation has been profoundly influenced by the participation, in agencies and in court, of the public interest representatives. They have identified issues and caused agencies and courts to look squarely at problems that would otherwise have been swept aside and passed unnoticed. They have made complaints, adduced and marshaled evidence, offered different insights and viewpoints, and presented scientific, historical and legal research. They have, in my view, been of significant service to the entire decisional process.

Second, citizen groups represent an outside view and can, therefore, offer a valuable perspective on the decision to be made. Citizen groups often contend that there exists a scientific and technological "establishment" composed of government, business and industry, and the universities, which government frequently relies on for consultation, advisory committee membership, and job exchange. Further, that this establishment is composed of a "community" of scientists and technicians, which is often assisted by federal funds (in such diverse areas as biomedical research, aerospace, nuclear power, synthetic fuels, and many new technologies). Consequently, citizen groups contend that at all levels of government and in many regulatory agencies there are commitments to industrial and technological development, at least unconsciously if not consciously. As a result, citizen groups contend that they can offer a fresh perspective since they do not have such unconscious biases.[314]

Common Cause has noted in their report, Serving Two Masters: A Common Cause Study of Conflicts of Interest in the Executive Branch[315]

> -- 52% of the 42 regulatory commissioners who were appointed during fiscal years 1971-75 came from companies regulated by their agencies or from the law firms representing such companies.
>
> -- 48% of the 36 commissioners who left during this same five year period went to work for regulated industries or their law firms.

> -- five of the six commissioners appointed to the Federal Trade Commission during this period came from FTC regulated companies or their law firms and all five who left during this period took jobs with such companies or firms.
>
> -- 52.5% of the top 139 employees of ERDA used to work for private enterprises in the energy field. Seventy-five percent of these people came from companies with contracts from ERDA.
>
> -- 65% of the NRC's 162 consultants are presently working for both the NRC and private enterprises that are recipients of NRC licenses or contracts.

Similar findings were found in the U. S. Senate Study on Federal Regulation: Volume I: The Regulatory Appointments Process:[316]

> (3) The lack of balance is a matter of major concern for the independent regulatory commissions. Generally, membership on the commissions is not well-balanced, and we have not had broad representation of various backgrounds, talents, and outlook. Specifically:
>
> > (a) Women and members of so-called minority groups are woefully under-represented in the regulatory commissions: out of a total of more than 150 appointments since 1961, only seven women and four blacks have been selected for the nine major commissions. Five of those agencies have never had a black commissioner, and three have never had a female member.
> >
> > (b) The commissions are predominantly composed of white males with legal backgrounds. Economists, engineers, political scientists, accountants and members of other professions are rarely selected.
> >
> > (c) A comparatively large number of regulators come directly from the regulated industries, which is in sharp contrast to the rare selection of persons with clear identification with public interest group concerns.

Further arguments noting the need for a fresh perspective rest on the recognition of the following points. First, many agencies have been broken up over their dual responsibilities of promoting and regulating an industry (Department of Agriculture on pesticides in 1970, the Bureau of Mines on mine safety in 1977, and the Atomic Energy Commission on nuclear power in 1974). Further ties between government and industry are alleged to exist between the

Food and Drug Administration and the pharmaceutical houses, the Department of Transportation and the aerospace interests, the FPC and the utilities, the ICC and the railroads and truckers, and the Forest Service and lumber interests.[317] Second, the ties between government and industry are so great that many citizen organizations often find it difficult to locate witnesses who will testify on their behalf because of fear of jeopardizing their economic ties.[318]

Professor von Hipple summarizes the need for a fresh perspective.[319]

> I feel that the nation's policymaking process is very much the weaker from the lack of support of a sufficient level of independent policy analysis activity reflecting the perspectives and insights of qualified "outsiders." The Science for Citizens Program--even at the level of one or two million dollars--could provide a substantial increment in the current level of support to this activity. The reason that the Program is so controversial is also the reason why it is so needed. It could potentially result in the redirection of federal and industry programs involving the expenditure of billions of dollars. Some special interests might lose and others might gain but, if we believe that informed political decisions are usually better political decisions, we must assume that in most cases the nation as a whole would benefit.

A third argument in favor of public financing is that citizen organizations play a valuable role in the function of administrative gadfly. They argue that their role is valuable for a number of reasons. First, their presence makes agency and interested parties' personnel do their homework, which results in the more careful and fuller consideration of all issues.[320] Second, agency staff personnel are not omniscient and citizen input can help to raise important questions. This point was noted by the chairman of the Atomic Safety and Licensing Appeals Board.[321]

> Conceivably, I place too much value upon the adversary system of adjudication as a means for ascertaining where the truth--and by that I mean the whole truth--lies. But every time I look at an uncontested case--or at one in which the contest is essentially of a token variety--I am left with the uncomfortable feeling that there may remain submerged safety and environmental concerns which would, as they should, have surfaced if a competent and responsible intervention had been in the picture.

Finally, the presence of citizen organizations will lead to increased clarity of administrative standards for decision-making. As Commissioner Hooks of the FCC stated before Congress:[322]

> . . .[H]aving [the public's] viewpoint expressed at the agency level makes it much easier for the court to make a decision. I think it would eliminate some second-guessing. Because too often the court gives the impression, as I read their opinions, that we have not considered all the viewpoints, but only a rather restricted viewpoint. I think having that full record before them would be helpful.

The importance of this past point should not be understated. As Judge Bazelon noted in EDF v. Ruckelshaus:[323]

> . . . Courts should require administrative officers to articulate the standards and principles that govern their discretionary decisions in as much detail as possible. . . . When administrators provide a framework for principled decision-making, the result will be to diminish the importance of judicial review by enhancing the integrity of the administrative process, and to improve the quality of judicial review in those cases where judicial review is sought.

A fourth argument raised by nonprofit citizen organizations in favor of funding is that it would help meet the public's need for information and education on aspects of scientific and technical policy questions. This in turn could build public confidence in the application of new technologies and in the candor of government decision-making. Former AEC Commissioner William Doub has noted that "exposure to the facts concerning nuclear technology via public participation and the media generates a higher degree of acceptability. The technology can withstand the most searching inquiry in the most public form and emerge with a public acceptability an order of magnitude higher than when the dispute began."[324] The Public Counsel to the ICC has testified to the same effect:[325]

> . . . I believe it has made the public accept the decisions that had to be made much more so than they might have. In certain instances, they might lose their rail service; however, they know they participated in 18 months planning and they know there has been a way for their voice to be heard. And indeed, at the state level I found frequently if consumers felt they had been heard, they might accept that electric price going up or that gas price going up. However, when they weren't heard and felt they were closed out of the decision-

making process. That is when you get in trouble.

In addition, citizen groups and others have noted that an active and involved citizenry is the best protection against abuse by agency bureaucrats and vested interests. Without financial resources, these activities are severely limited. Senator Mathias has noted:[326]

> We have learned that acquisition and review of Government-held materials is simply not enough to ensure public awareness of and public involvement in the operations of our Government. A responsive Government must allow for private citizens to actively participate in the decision-making procedures of Federal regulatory agencies.

It is important to remember as Professor Caldwell has noted that "democratic self-government, in its most representative form in the United States, is one of the most difficult kinds of social efforts to undertake. It works well only when thousands of citizens cooperate to make it work through their study, organizing, questioning, and follow-through. It is a demanding form of government, and its functional component (is) the functional citizen. . . ."[327]

There are a number of arguments against public funding, many of which have been addressed elsewhere in the paper. These include (1) it would be too costly to fund the public; (2) the funding of the public will result in undue delay and encumber the process (see section 3.3C); (3) the agencies represent the "public interest" and public funds should not be used to further private views (see section 3.1E); and (4) funding merely encourages the adversary process, which is ill-suited to scientific issues (see section 3.1E).[328]

3. Financing Public Participation

The theory of "public interest" representation is that it will produce results that will result in greater equity than if the public was not present and, consequently, be valued for its own sake. As a result, the right to such representation should be more than a ceremonial doctrine. The contrast between public participation rights in theory and what actually occurs in practice

generates demands for new techniques (including financing) to adequately insure public interest representation in agency proceedings. While the Administrative Conference has not recommended public financing as it has so many of the other public participation rights, the Committee on Agency Organization and Procedure which put forth the public financing recommendation concluded: "It was the Committee's view, and still is our view, that, unless aided by other resources, the costs of meeting necessary legal expenses in trial-type proceedings would constitute insuperable barriers to effective participation by citizens and public intervenor groups.[329] This in fact was the finding of the U. S. Senate Study on Federal Regulation:[330]

> (4) The single greatest obstacle to active public participation in regulatory proceedings is the lack of financial resources by potential participants to meet the great costs of formal participation. Lack of funds has prevented public participation in many important proceedings.
>
> (5) The regulated industry consistently outspends public participants by a wide margin in regulatory agency proceedings. In every case or agency reviewed, industry spent many times more on regulatory participation than their public interest counterparts. In some instances, industry committed as much as 50 to 100 times the resources budgeted by the public interest participants. For example, in 1976 the nation's 11 trunk airlines spent more than $2.8 million on outside counsel to represent them in regulatory proceedings before the CAB. By contrast, the Aviation Consumer Action Group, the principal representative for public interest organizations at CAB proceedings, had a total 1976 budget of $40,000, of which approximately half was spent on participation in CAB proceedings.
>
> (6) Lack of resources has limited the amount of technical expertise that participant groups have been able to bring to bear in agency proceedings.
>
> (7) Opportunities for citizen participation are hampered by significant administrative costs such as transcript fees and reproduction of required materials.

There are a number of administrative difficulties associated with implementing any possible recommendation to provide financial assistance to citizen organizations. These include (1) how the decision is made for determining which groups are

eligible; (2) what criteria will be used for choosing among eligible groups; (3) what administrative mechanisms facilitate the screening and selection of applicants; and (4) how much money should be given to any group. While not understating the difficulty of implementing a program of citizen funding, it is very clear that other agencies are administering such programs including grants for technical studies as well as directly funding intervenors.

First, while it is not possible to define the "public interest", it is possible (remembering that the public interest is, as noted earlier, not a monolith, but the aggregation of all interests that make up a pluralistic society) to develop a functional approach to determining who is eligible. It has been recommended that financial assistance not be dependent upon subjective definitions.[331] Under the functional approach, eligibility for funding would depend upon the technical quality and importance of the groups' proposal for funding by showing a demonstrable need for the funds. It would not require the applicants to represent the "public interest", something that is clearly impossible.[332] In short, the applicant for funding would need to show that the group's interest is not already adequately represented by other interests and there is a need for the funds.

How do you determine if an organization should receive funds, particularly when it may have enough funds for a particular issue, but has already committed these funds to other intervenor issues or other activities? The Federal Trade Commission's Intervenor Financing Program deals with this issue. The FTC's guidelines consider not only the total resources of the applicant, but also the magnitude of the applicant's economic stake in the issue as compared to its anticipated cost of participation:[333]

> A group with substantial resources can be eligible if it is unable to participate because its resources are already com[m]itted to other areas, if it has undertaken to cover too

> many different activities to focus resources on a project as large as an FTC rulemaking, or if other factors would preclude participation.

In addition, the funds would have to be used for the statedpurpose of the grant.

Second, some guidelines for choosing among eligible groups that apply for financial assistance include (1) proposals that are specific as to purpose, i.e., specific issues the group wishes to address, the point of view it represents, the information it intends to develop or present, the identities and qualifications of personnel working on the project; (2) that studies to be conducted under the grant will be able to meet the accepted tests of scientific rigor; (3) that the issues to be addressed have significant relevance to the public policy issues and should be presented in a format which the public can understand; and (4) that the citizen group have a genuine concern for the issues and be fully independent from the economic, bureaucratic and intellectual interests in the area.[334]

Third, what mechanism would facilitate the financing of these groups? A number of mechanisms have been proposed. These include (1) funding by the agency through a direct appropriation of the legislature for that purpose; (2) funding by the agency via fees raised as part of the regulated interests application process; (3) funding by the legislature or through applicant fees to an independent agency or an independent intervention center which would in theory have less bias than the agency; and (4) funding by utility payments to a "residential utility consumer action group" which would have the power to intervene, standing, the right to lobby, etc. and overseen by a citizen board of directors.[335]

Fourth, how much money should a group receive? There are literally scores of decisions in determining legal fees. One of the most frequently cited cases is Johnson v. Georgia Highway Express which adopted the following guidelines:[336]

1. Time and labor required;
2. the novelty and the difficulty of the questions;
3. the skills requisite to perform the legal service properly;
4. the preclusion of other employment by the attorney due to the acceptance of the case;
5. the customary fee;
6. whether the fee is fixed or contingent;
7. time limitations imposed by the client or the circumstances;
8. the amount involved and the results obtained;
9. the experience, reputation, and ability of the attorneys;
10. the 'undesirability' of the case;
11. the nature and length of the professional relationship with the client;
12. awards in similar cases.

Other courts have used a general criteria:[337]

> . . . the reasonable value of the services rendered, taking into account all the surrounding circumstances, including, but not limited to, the time and labor required on the case, the benefit to the public, the skill demanded by the novelty or complexity of the issues, and the incentive factor.

A number of studies have addressed the issue of public financing of legal fees for citizen groups and nonprofit citizen organizations. The U. S. Senate Study on Federal Regulation offered the following recommendations:[338]

> (10) Congress should enact legislation authorizing agencies to provide compensation to eligible persons for costs incurred in participating in agency rulemaking, ratemaking, licensing, and certain other proceedings. Eligibility for compensation of reasonable costs should be conditioned on whether (a) the participant can reasonably be expected to make a substantial contribution to a fair determination of the issues; and (b) the economic interest of the person is small in comparison to the cost of effective participation or the participant does not have sufficient resources to participate effectively. Such legislation should also provide compensation to eligible persons for costs incurred in seeking judicial review of agency actions.
>
> (11) Until such time as general legislation for compensation of public participation costs is enacted, regulatory agencies should implement their own programs to compensate eligible participants in agency proceedings as appropriate.
>
> (12) The APA should be amended to empower agencies to order "fee shifting" in cases of bad faith, willful violation of an agency order or other egregious conduct. Agencies should have the power, as do the courts, to allow exceptions to the general

> American rule that litigating parties pay their own attorneys fees, whether they win or lose.

It is unnecessary at this point to reiterate the financial needs of citzen groups. Their inability to participate in the resolution of scientific and technical policy issues without such financing is well documented.[339] As Judge Richey summarized:[340]

> The regulated people have their views heard, because they generally have the money and the expertise to make their point of view in the record; but for the poor complainant, the poor individual, the poor group of consumers, the environmental groups and so on, there just isn't enough money or facilities or foundations or otherwise to finance their point of view.

Indeed, those who support the notion of financing citizen organizations believe that there is no other alternative available.[341] They believe that if citizen organizations are to be effective they must rely on more than pro bono and "weekend" scientists. "The problems that our society faces in dealing with technology have grown to be too numerous and too sustained, and institutional vested interests are too great, for the practice of public-interest science to continue satisfactorily on an entirely ad hoc basis."[342]

RECOMMENDATION: IT SHOULD BE THE POLICY OF THE STATE OF MINNESOTA TO PROVIDE FINANCING TO NONPROFIT CITIZEN ORGANIZATIONS AND UNINCORPORATED CITIZEN GROUPS IN ORDER TO EFFECTIVELY ASSURE THAT THE PUBLIC CAN PARTICIPATE IN ADJUDICATORY OR RULEMAKING PROCEEDINGS. WHENEVER POSSIBLE, THE LEGISLATURE SHOULD PROVIDE FUNDING THROUGH APPLICATION FEES IN ADJUDICATORY CASES. OTHERWISE, FUNDING SHOULD BE PROVIDED VIA A DIRECT APPROPRIATION, EITHER THROUGH THE CENTER FOR INTERVENTION AND TECHNICAL ASSISTANCE RECOMMENDED ABOVE OR THROUGH THE AGENCY ITSELF. THE CRITERIA FOR ELIGIBILITY SHOULD BE LIMITED TO THE TECHNICAL QUALITY AND IMPORTANCE OF THE GROUP'S PROPOSAL AND THE NEED FOR THE FUNDS. THE AMOUNT OF THE FUNDING PROVIDED TO ANY INDIVIDUAL GROUP SHOULD BE FLEXIBLE WITH THE CRITERIA BEING THE COMPLEXITY OF THE ISSUES, THE NUMBER OF GROUPS TO BE FUNDED, AND THE AMOUNT OF FUNDS AVAILABLE.

RECOMMENDATION: THE MINNESOTA ADMINISTRATIVE PROCEDURES ACT SHOULD BE AMENDED TO EMPOWER AGENCIES TO ORDER "FEE SHIFTING" IN CASES OF BAD FAITH, WILLFUL VIOLATION OF AN AGENCY ORDER OR OTHER EGREGIOUS CONDUCT.

RECOMMENDATION: THE MINNESOTA ADMINISTRATIVE PROCEDURES ACT SHOULD BE AMENDED TO REQUIRE THE COURTS TO PROVIDE LEGAL FEES TO ANY PLAINTIFF WHO BRINGS AN ACTION AGAINST AN ADMINISTRATIVE AGENCY COMPELLING THE AGENCY TO DO ITS JOB OR CHALLENGING THE AGENCY'S DECISION FOR BEING ARBITRARY AND CAPRICIOUS AND WINS OR, IN THE OPINION OF THE PRESIDING JUSTICE, HAD A LEGITIMATE ISSUE, BUT STILL LOSES. AGENCIES SHOULD NOT BE ABLE TO COLLECT FEES UNDER ANY CIRCUMSTANCES.

C. Delay and Public Participation

There is little doubt that unreasonable delays in maintaining an adequate and reliable supply of electrical energy may cause severe problems, both economically and in maintaining the reliability of the pool. Delays in licensing, one among many causes of delay, may cost utilities money; the amount of which may, as some utilities claim, be substantial. These costs include (1) costs relating to inflation of construction costs; (2) interest costs incurred after major financial commitments; and (3) replacement power costs. Delays in the final operation of plants are thought to be the most costly. However, in spite of the problem this first cost of delay has been in the recent past, it is not a major concern for evaluating regulatory processes, i.e., if the cost of constructing power plants exceeded costs generally, then power plants would soon be priced out of reach. However, the other cost increasing factors cannot be ignored. Delay after the commitment of funds, such as major redesigns of plants, will tend to increase the final cost of the plant. In addition, costs of replacement power usually exceed the cost of power from the new plant (why else would utilities build a new plant if an adequate supply of electricity could be purchased) and could amount to millions per month. Other costs attributable to the licensing process but not related to delay include the costs of complying with the regulatory process, costs of redesign, and the costs of property acquisition.[343]

What causes delay? The causes of delay may be divided into two groups. These include all the causes of delay generally and the focus of this study, the causes of delay due to problems associated with the administrative process. As may be seen later, the administrative delays for completion of power plants were due primarily to the new requirements that government deemed necessary, such as NEPA, with which utilities and federal energy agencies must comply. Prior to these requirements, the regulatory process rarely caused much delay. An FPC study of the 1966 to 1970 period concluded that, while many plants failed to meet scheduled

start-up dates, only six percent of the delays (out of 124 contributing causes) were attributable to licensing delays, including, but not limited to, environmental objections (a popular scapegoat of delay). Over 90 percent of the delays found were attributable to either labor or equipment problems.[344] Similar findings were presented in an Edison Electric Institute Study of plants built between 1966 and 1968. This study found only four delays due to licensing (no delays caused by environmental opposition) and 80 percent of the delays were due to labor problems, faulty equipment, and late deliveries.[345] The period of 1966 to 1970 saw the time necessary to obtain a decision from the old AEC increase two and one-half times, but little, if any, evidence shows that this increase can be attributed to environmental opposition.[346] Dr. James Schlesinger, then chairman of the old AEC, testified in 1972, before the Subcommittee on Fisheries and Wildlife of the House Committee on Merchant Marine and Fisheries, regarding the sources of power plant delays:[347]

> Delays in constructing and placing power plants into service have been attributable to a combination of engineering and equipment problems, labor difficulties, and more recently to the extension of time required to obtain permits from public agencies and meet the legal challenges of private intervenors. There have been many instances of suppliers' failure to fabricate and deliver quality equipment on schedule, resulting in construction disruptions and serious start-up problems. Labor disputes, slowdowns, strikes and shortages of skilled craftsmen have been equally troublesome in delaying construction and reducing quality of workmanship. Regulatory and licensing delays are now becoming relatively more important as utilities strive to meet new environmental requirements.
>
> The Federal Power Commission has made an assessment of the power supply situation in the U. S. for the summer of 1972 and the winter of 1972-73 and identified thirteen nuclear power stations which they believed would be of critical importance in meeting peak loads during these periods. These plants are listed in the table below with an indication of the major factors contributing to delays. A delay is considered to be any extension of time required to bring a plant into commercial operation over the utility's estimate at the time the plant was announced or ordered. Consequently, using this ground rule, a plant delay may simply indicate an unrealistic schedule of project time or a change in plan rather than a failure to fulfill the plan due to some unforeseen developments. Furthermore, since concurrent problems may arise to cause delays, it is not practical to try to assess the relative effect of any one factor on total delay time.

TABLE 3-4

CAUSES OF DELAYS IN NUCLEAR PLANTS IDENTIFIED AS CRITICAL TO ELECTRIC UTILITY SUPPLY IN 1972-73

	Capacity Mwe (net)	Causes of delay			
		Planning and scheduling	Labor related	Equipment problems	Regulatory and environmental
1. Quad Cities No. 1	809	(1)	(3)(4)	(7)	(9)(10)(11)
2. Quad Cities No. 2	809	(1)	(3)(4)	(7)	(9)(10)(11)
3. Indian Point No. 2	873	(1)	(4)(5)		(11)
4. Point Beach No. 2	497	(1)	(5)		(11)
5. Palisades	700		(5)		(10)(11)
6. Fort St. Vrain	330	(1)		(8)(9)	
7. Oconee No. 1	841	(1)		(7)	
8. Surry No. 1	788	(1)		(7)	(11)
9. Turkey Point No. 3	693	(1)	(3)	(6)(7)	
10. Maine Yankee	790				
11. Pilgrim No. 1	655	(2)			(9) (11)
12. Vermont Yankee	514	(1)			(9) (11)
13. Turkey Point No. 4	693	(1)	(3) (5)	(7)	

KEY TO FIGURES IN PARENTHESES

Planning and scheduling:
(1) Unduly short original schedule (under 60 months).
(2) Plan changes or deferments.

Labor related:
(3) Shortage of labor or skills.
(4) Low labor productivity.
(5) Work stoppages and strikes.

Equipment problems:
(6) Equipment failure and faulty installation.
(7) Late delivery of equipment.
(8) Design changes.

Regulatory and environmental problems:
(9) Unexpected delays in obtaining permits and certifications (delay due to inadequate utility submissions; ACE regulatory problems; or failure to obtain authorizations from other Federal, State, and local governing bodies in a timely manner).
(10) Addition of facilities, etc., to meet environmental needs.
(11) Intervention by private or governmental organizations.

Source: Federal Power Commission, In: Testimony of James Schlesinger, Ph.D., Chairman, Atomic Energy Commission, Interim Nuclear Licensing, Hearings before the Subcommittee on Fisheries and Wildlife Conservation of the Committee on Merchant Marine and Fisheries, 92nd Cong., 2nd Sess., Ser. No. 92-18, March 22, 1972, p. 29.

In November 1973, Commissioner William O. Doub of the Atomic Energy Commission commented on a Federal Power Commission (FPC) analysis of the reasons for delays in nuclear powerplants scheduled to come on-line during 1973. Commenting on the data (see Table 3.5, which contradicted the prevailing attitudes regarding the causes of delay in nuclear powerplants, Mr. Doub observed:[347A]

> We all know that statistics can be very tricky, but even doubling or tripling the regulatory-related delay figures, does not do much to close the gap (between construction and manufacturing related problems).

In May, 1974, the Joint Committee on Atomic Energy continued hearings on "Nuclear Powerplant Siting and Licensing", at which time Commissioner Doub commented more extensively on the AEC analysis of this data and related licensing problems (see table 3-6):[347B]

> It is true that in recent years the licensing process has been on the critical path for a significant number of reactors, and reduction or elimination of licensing from the critical path are worth goals that should be and have been studied. I do not agree, however, that the licensing process caused unreasonable delays in those instances where it served to point out safety or environmental issues whose resolution required time. Rather, the causes of delay in such instances was the early state of development of nuclear power, and we all expect that this is a much diminished source of delay.
>
> The causes of lengthy licensing reviews experienced in the past can be categorized as follows:
>
> 1. A sudden upsurge of legitimate environmental concerns in the late 1960's and 1970's, culminating in the Calvert Cliffs' decision.
>
> 2. A coincidental increase in constructive public interest in nuclear power, as evidenced by much increased public intervention.
>
> 3. An upsurge in orders placed for nuclear powerplants, due to increased power demands and improved economic competitiveness of nuclear power.
>
> 4. An increase in the number of technological problems identified as the size and complexity of nuclear powerplant increased.
>
> All of these factors combined to produce a tremendous licensing backlog in 1970 and 1971...

Since 1974, the Federal Power Commission (FPC) has surveyed utilities on the reasons for delays in new powerplant construction on a quarterly basis, and data is

TABLE 3-5

CAUSES OF DELAY IN NUCLEAR POWERPLANTS: 1973

Causes of Delay	Units	Plant/Months
Poor Labor Productivity	16	84
Late Delivery of Equipment	9	68
Regulatory Changes	8	23
Labor Strikes	5	18
Shortages of Labor	5	18
Equipment Failures	6	15
Rescheduling	1	12
Legal Challenges	4	9
Adverse Weather	1	9
Strikes of Factory Labor	4	5

Source: Doub, W., Commissioner AEC, "Meeting the Challange to Nuclear Energy Head-On," In: Reprinted Appendix 8, Nuclear Powerplant Siting and Licensing, Hearings Before the Joint Committee on Atomic Energy, 93rd Congress, Vol. 11, p. 1147.

TABLE 3-6

CAUSES OF DELAY: 1973 - 1974

Causes of Delay	1973	1974
Changes in Regulatory Requirements	14	10
Poor Productivity of Labor	12	9
Late Delivery of Major Components	13	6
Shortage of Construction Labor	10	3
Environmental Legal Challenges	-	10
Construction Labor Strikes	9	-
Delays in Local Certification	3	4
Rescheduling Associated Facilities	6	1
Equipment Failures	5	1
Manufacturer Employee Strikes	3	-
Miscellaneous Legal Challenges	-	2
Delays in State Certification	-	1
Initial Operating Problems	1	-

Source: Federal Power Commission Reports No. 19050, March 1973 and No. 20194, May 1974.

currently available through the fourth quarter of 1976. Table 3-7 summarizes the data as compiled by the FPC: January 1975 through June 1975; July 1975 through December 1975; and January 1976 through April 1976. Results from April 1976 through December 1976 were summarized by the FPC, but not tabularized.

In the summaries of survey findings published for plants brought on line during the third and fourth quarters of 1976, the results are similar to the findings above:[347C]

> April - September, 1976: Of the reasons for delay the most frequently cited was "equipment problems (late delivery, failures, faulty installations)--it was cited 26 times. The second most frequently cited reason was "labor troubles" (i.e., shortages of labor, poor productivity, etc.,); it was cited six times. "Prolonged procedures to obtain necessary certificates from different government agencies was cited four times, and "legal challenges" also four times.
>
> October - December, 1976: Of the reasons for delay the most frequently cited was "equipment problems" (late delivery, failures, faulty installation)--it was cited 15 times. The second most frequently cited reason was regulatory delays (difficulties in obtaining necessary certificates or approvals from government agencies); it was cited eleven times; the third reason was changes in regulatory requirements--ten times. Labor problems and financial difficulties were cited five times each.

2. Analysis of Delay

The data compiled by the Federal Power Commission has two serious limitations. First, it represents information compiled by the FPC based on surveys of the electric utility industry, and certain aspects of the data strongly suggest an accompanying bias. Second, the data is based on contributing causes, rather than on single, or most important causes, and therefore any number of "causes" may be cited for the delay of a single powerplant. For these reasons the data is only approximate. It is also important to note that it has not been subject to independent analysis.

TABLE 3-7

CAUSES OF DELAY: 1975 - 1976

Causes of Delay	1975 Jan. - June	1975 July - Dec.	1976 Jan. - Mar.
Late Delivery of Major Equipment	21	14	-
Initial Operation Problems	10	10	-
Failure of Major Equipment	12	4	-
Rescheduling Associated Facilities	12	3	1
Fiscal Problems	8	1	3
Unspecified Reasons	9	2	1
Construction Labor Strikes	3	4	-
Shortages of Construction Labor	2	2	2
Poor Productivity of Labor	8	2	-
Faulty Installations	3	2	-
Changes in Regulatory Requirements	3	2	-
Natural Disasters	4	-	-
Delays in State Certification	1	2	-
Delays in Federal Certification	-	2	-
Environmental Challenges	-	2	-
Land Use Challenges	-	2	-
Delays in Local Certification	-	1	-

Source: Federal Power Commission Reports No. 21817, October 1975, No. 22333, May 1976, and No. 22698, October 1976.

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Faulty Installations	3	2	-
Changes in Regulatory Requirements	3	2	-
Natural Disasters	4	-	-
Delays in State Certification	1	2	-
Delays in Federal Certification	-	2	-
Environmental Challenges	-	2	-
Land Use Challenges	-	2	-
Delays in Local Certification	-	1	-

Source: Federal Power Commission Reports No. 21817, October 1975, No. 22333, May 1976, and No. 22698, October 1976.

There were increased licensing delays in the early seventies. Former General Counsel of the AEC Joseph Hennessy identified a number of causes that may be responsible for delays in the licensing process. These include (1) the type of possible reactor and periodic design alterations purchased by the utility; (2) the quality of input (inadequate or incomplete information) provided by the manufacturer,the architect-engineer, and the utility in the preparation of the permit application; (3) the need for review by the Advisory Committee on Reactor Safeguards (ACRS) for standardized second and third plants for existing sites; and (4) the addition of issues raised by intervenors.[348] This last cause needs to be examined closely in evaluating the role of the public in administrative processes.

In 1970, Congress enacted two pieces of legislation which significantly expanded the number of issues to be addressed by the AEC. Until 1970 the only issues addressed were those relating to radiological health and safety. The National Environmental Policy Act (NEPA) directed all federal agencies to consider environmental amenities and values "in decision-making along with economic and technical considerations."[349] The AEC's obligation to comply with NEPA was clearly spelled out in Calvert Cliffs' Coordinating Committee v. AEC.[350] In addition, the 1970 amendment to section 105 of the Atomic Energy Act required the AEC to review antitrust aspects of any application for a nuclear power plant license.[351] Both of these laws provided forums for the public to raise issues, which up to this point had not been addressed by the AEC. Coupled with these laws were more stringent environmental requirements for air and water emissions also authorized by Congress.

In the early seventies, the EIS process required by NEPA did result in extensive delays in licensing nuclear power plants. The court's decision in Calvert Cliffs' required the AEC to do a comprehensive EIS on all nuclear facilities which had not received full operating licenses before January 1, 1970. This affected over 100 projects. In addition, some projects were delayed when the AEC

implemented the EIS process at the end of the project and when inadequate EIS procedures were challenged in courts. In a study conducted by the NRC, which examined 12 nuclear facilities' licensing processes for delay from 1970 to 1974, the length of time decreased from three years to eight to ten months for completion of the final EIS and the average docketing time for the period 1970 to 1977 decreased from nearly two years to generally less than one year.[352] The following conclusions were reached by the Council on Environmental Quality (CEQ) in its study of the first six years of NEPA:[353]

> The CEQ review indicates that these serious delay problems have greatly diminished; the backlog of pre-NEPA proposals has been reduced substantially, and delays caused by faulty timing are disappearing as agencies improve their environmental analyses and integrate EIS requirements into regular decision-making processes. The Council's study of the three points at which delays can occur--in preparing a draft EIS, in preparing a final EIS, and after filing the final statement, when litigation may occur--indicates that most agencies have continued to reduce the times required for EIS preparation. Moreover, as agencies follow EIS procedures more consistently, the effects of litigation in delaying decisions have also been diminished.

The NRC study noted above also examined many other factors which could potentially result in the delay of a license. They found (1) the technical issue of seimicity can be a delaying factor in the safety review of an application; (2) that while waste management was not "a direct cause of delay in any of the case histories" examined in their report, they did believe that this issue might be "a potential source of delay in the future" based upon their interpretation of a case in which the Second Circuit in NRDC v. NRC has ruled that "information concerning the environmental effects of radioactive wastes must be considered on the public record in decisions to license nuclear reactors;[354] (3) the problem of "ratcheting" (revision of NRC standards and regulations in retrofitting of component parts)" has not shown itself to be a serious cause of delay"; and (4) the anti-

trust review process is not expected to become "a critical source of delay now or in the future."[355]

3. Delay in the Decision Making Process

The decision-making process including the hearing procedure has also been cited as a source of delay. The GAO (General Accounting Office) found that the primary reason that the length of time for reaching a decision on an application had increased two and one-half times in the late sixties was that the AEC neither had, nor requested until the early seventies, adequate staff to process the applications.[356] Another problem was the habitual filing of incomplete applications. Under rules promulgated in 1972 no application can be docketed until completed.[357] In examining the Federal Energy Regulatory Commission (FERC) (the successor to the old FPC), the GAO found after examining 22 cases that the hearing process takes two years to complete for a wide variety of procedural reasons.[358] The length of time for any one application varied considerably. The NRC study noted above found that there was no relationship between ASLB (Atomic Safety and Licensing Board) hearings and the historical docket date.[359] In another study, the GAO found that the administrative law process has generally resulted in "extensive delays which can deprive rather than guarantee due process to the parties involved."[360] The U. S. Senate study found the following additional reasons as causes of delay:[361]

- Agency procedures are excessively judicial in nature; there is far too much emphasis on trial-type procedures;
- Planning, priority-setting, and leadership by top agency management are often inadequate;
- Agencies have made too little effort in setting deadlines for various stages of proceedings, and too little effort at enforcing deadlines;
- Many agencies, either by statute or regulation, provide extra and unnecessary layers of review before agency action becomes final;
- Agencies fail to make sufficient use of incentives and sanctions to encourage participants to speed up regulatory proceedings.

One of the major causes of delay in the regulatory process deals with information flow. An NSF-sponsored study concluded:[362]

> 13. Much of the delay in the hearing process can be attributed to legal and procedural hassles concerning production of documents and responses to interrogatories. Much of it results from a need to prepare responses, briefs, motions, rulings, technical reports,

> and environmental reports, and to set suitable hearing dates to accommodate part-time Board members and all of the parties involved and to avoid conflict with other concurrent hearings.

Another commentator has noted that "disputes over the production of documents have caused weeks and even months of delay in licensing proceedings." Such disputes were exacerbated by the agencies' refusals to disclose staff documents and keeping disclosable information secret until the formal hearing. Such actions inhibit public participation in the planning process. Litigations, such as the Green County case, has prolonged the process in order to extract information under the Freedom of Information Act (5 U.S.C. §552).[364] In addition, because both the old AEC and FPC had inhibited pre-hearing discovery, it was necessary for other parties to engage in extensive cross-examination in order to obtain the information, which unnecessarily prolongs the hearing process. These types of situations emphasize the need for a freedom of information act (see section 3.2B) and the importance of permitting public participation in the planning process (see section 3.3A) in order to minimize procedural delays in the hearing process.

A corollary to the information problem is the issue of public intervenors obtaining information necessary to the decision which the utility has declared proprietory, and, hence, nondisclosable. As a result, conflicts arise over questions of proprietory status, the need for information, the balancing of interests involved, the appropriateness of confidentiality agreements, the method by which evidence will be introduced, and the status of the evidence once introduced. Numerous examples exist where utilities, having released the information to agencies, Congress and others, have refused or made it difficult for the public to obtain information.[365]

Another cause of delay is the rescheduling of construction by utilities due to lowered demand forecasts. Recently, NSP (Northern States Power) revised downward its forecast for the two coal-fired facilities (Sherco 3 & 4) to a modified 3 and no 4. In addition, MP&L (Minnesota Power & Light) has revised its forecast

resulting in the need for a 500 MW plant at Floodwood-Pine Lakes instead of the original 800 MW facility originally projected to be needed. While public opposition existed, in each instance the final cause of delay was the utility's revision of the estimated need for power resulting in the reiteration of the certificate of need process before the MEA.

4. Delay and Public Participation

The final question of delay, as it relates to this chapter, is to what extent, if any, does public participation result in delay of the regulatory, decision-making process. It has been and, if the St. Regis incident* is any example, continues to be quite fashionable to blame public intervenors (some equate this exclusively with environmentalists) for any and all delays in the regulatory process. A 1972 study on delays of opening nuclear power plants conducted by the AEC's Office of Planning and Analysis has reportably shown that environmental opposition was not a significant source of delay. A request made to the AEC for a copy of the study resulted in a decision by the full commission not to release the report until it had been "refined", a process that would take "several months", since it was being put on a "back-burner."[366] Nucleonics Week reported that the AEC was "refining its methodology because of the study's 'somewhat unexpected results'."[367] Also in 1972, a letter from the CEQ to the AEC for a list of projects unreasonably delayed solely because of NEPA and "where the public interest would be served by something less than full compliance with NEPA", brought forth only the naming of one project (of over 100 possible), which was ultimately settled out of court.[368] During that same time period, a member of the AEC's ASLB has indicated that there is at present (1972) little if any evidence that public participation has been a major factor contributing to delays.[369] In addition, FPC chairman Nassikas observed in testimony and before Congress that "present problems are not at all, or even predominantly environmentally caused."[370] In short, at the peak of delay due to the regulatory process, little if any delay was the result of public participation.

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* The "St. Regis incident" refers to the efforts of blaming environmentalists for St. Regis' abandonment of a power plant expansion for a site at Sartell, Minn site for a site in Canada. It turned out that St. Regis wanted the Canadian site for economic reasons. The Canadians turned them down and now St. Regis is building at Sartell.

Has public participation been a problem since these observations were made? In a recent NRC report on the causes of delay in the licensing of nuclear power plants "public intervention resulted in extended delays in only two of the thirteen cases. . . a substantial part of which was the result of ASLB and ASLAB review of intervenor contentions."[371] These delays are not, by definition, inappropriate. As the ASLB itself said:[372]

> In short, delay in the issuance of an operating license attributable to an intervenor's ability to present to a licensing board legitimate contentions based on serious safety problems uncovered by the staff would establish not that the licensing system is being frustrated, but that it is working properly. Any delay in such a situation would be fairly attributable not to the intervenors but to the non-readiness of the facility for operation. Delay in the issuance of the license is entirely appropriate--indeed, mandated--in that circumstance.

The ASLB comments above are consistent with judicial interpretation of the law. The D. C. Circuit in Calvert Cliffs concluded that "whether or not the spectre of a national power crises is as real as the commission apparently believes, it is not to be used to create a blackout of environmental considerations in the agency review process." [Rather,]"it is far more consistent with the purposes of the Act to delay operation at a stage where real environmental protection may come about than at a stage where corrective action may be so costly as to be impossible."[373]

Implicit within most debates on the extent of delay caused by public participation is the assumption that delay is always the end product of public intervention and that delay always works to the disadvantage of the industry. The evidence does not support this assumption. The U. S. Senate study concluded that:[374]

> While delay is a general problem in regulatory proceedings, it is a problem that falls with special weight on citizen organizations such as environmental and consumer groups and on small businesses. Because of their usual lack of resources, long drawn-out proceedings greatly tax the finances of intervenor groups. More common than proceedings which are themselves lengthy is the length of time that elapses between the various stages of agency proceedings. While this elapsed time confers no direct cost on the participant group, delays of several years, which are common, severely strain the staying power of such groups.

resulting in the need for a 500 MW plant at Floodwood-Pine Lakes instead of the original 800 MW facility originally projected to be needed. While public opposition existed, in each instance the final cause of delay was the utility's revision of the estimated need for power resulting in the reiteration of the certificate of need process before the MEA.

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* The "St. Regis incident" refers to the efforts of blaming environmentalists for St. Regis' abandonment of a power plant expansion for a site at Sartell, Minn site for a site in Canada. It turned out that St. Regis wanted the Canadian site for economic reasons. The Canadians turned them down and now St. Regis is building at Sartell.

Has public participation been a problem since these observations were made? In a recent NRC report on the causes of delay in the licensing of nuclear power plants "public intervention resulted in extended delays in only two of the thirteen cases. . . a substantial part of which was the result of ASLB and ASLAB review of intervenor contentions."[371] These delays are not, by definition, inappropriate. As the ASLB itself said:[372]

> In short, delay in the issuance of an operating license attributable to an intervenor's ability to present to a licensing board legitimate contentions based on serious safety problems uncovered by the staff would establish not that the licensing system is being frustrated, but that it is working properly. Any delay in such a situation would be fairly attributable not to the intervenors but to the non-readiness of the facility for operation. Delay in the issuance of the license is entirely appropriate--indeed, mandated--in that circumstance.

The ASLB comments above are consistent with judicial interpretation of the law. The D. C. Circuit in Calvert Cliffs concluded that "whether or not the spectre of a national power crises is as real as the commission apparently believes, it is not to be used to create a blackout of environmental considerations in the agency review process." [Rather,]"it is far more consistent with the purposes of the Act to delay operation at a stage where real environmental protection may come about than at a stage where corrective action may be so costly as to be impossible."[373]

Implicit within most debates on the extent of delay caused by public participation is the assumption that delay is always the end product of public intervention and that delay always works to the disadvantage of the industry. The evidence does not support this assumption. The U. S. Senate study concluded that:[374]

> While delay is a general problem in regulatory proceedings, it is a problem that falls with special weight on citizen organizations such as environmental and consumer groups and on small businesses. Because of their usual lack of resources, long drawn-out proceedings greatly tax the finances of intervenor groups. More common than proceedings which are themselves lengthy is the length of time that elapses between the various stages of agency proceedings. While this elapsed time confers no direct cost on the participant group, delays of several years, which are common, severely strain the staying power of such groups.

> Public interest groups typically rely heavily on relatively short term volunteer staffing. Many groups have their filings prepared by legal interns who are available only for a year or two. As noted above, expert witnesses are usually obtainable only on a volunteer or discount basis and may not be readily accessible through the years of delay. This situation contrasts markedly with private intervenors who are much more able to incur the costs of delay and whose interests may even be served by such delay.
>
> More important than the strain on the public interest groups themselves is the fact that procedural delay adversely affects the broad public interests advocated by such groups. We do not suggest that the positions advocated by such groups ought always to prevail. Rather, to the extent that valid and broad social interests are at stake in regulatory proceedings, there should be some determination by the agency without unreasonable delay. Otherwise, the problems addressed by agency proceedings frequently continue to the detriment of the public interest. Unfortunately, there are many examples of cases where delay or outright inaction has occurred to the detriment of the public interest.

In addition, delay has been used to great advantage by many companies to obtain rate increases or to avoid paying claims.[375]

In 1972, the New York Bar Association Study concluded that "increased public participation does not mean delay . . . Moreover, increased public participation may actually decrease delay; in the short run, by raising relevant issues for agency consideration and thus making judicial reversals less likely, and in the long run, by increasing public confidence and making resistance to agency actions and policies less frequent."[376] Yale Professor Lloyd Irland is discussing citizen participation as a tool for conflict management over issues involving public lands concluded that "a strong commitment to citizen participation in decision-making need not create undue delay or inconvenience. Any delays created by citizen involvement will probably be small compared to those resulting from lawsuits filed by angry citizens who feel left out of planning. . . Citizen participation, if built into [the] process, need not lengthen these times further."[377] Finally, the

U. S. Senate study concluded:[378]

> In our view, the fact that an additional party participates in an administrative agency proceeding does not mean that the proceeding will be delayed. With appropriate management practices and with wide discretionary latitude accorded to presiding officers, administrative proceedings should not be lengthened by the inclusion of an additional participant. Not lengthened, that is, unless the additional participant raises new issues which are relevant and material to the proceeding--issues which cannot be summarily discussed and must be considered. When that occurs, the initial proceeding may indeed take longer--as it should--in order to explore the additional relevant considerations which have been raised. Ultimately, however, the overall time elapsed may in fact be lessened, since if all relevant issues are resolved in the initial proceeding, the likelihood of a subsequent court reversal to consider relevant issues is substantially reduced, and along with it the risk that the agency will simply have to go through its paces all over again.

In sum, delay due to public participation in the process is by no means inevitable. An improved quality of public participation could even reduce delay.

In March, 1977, the Comptroller General completed an analysis of existing and proposed nuclear licensing procedures, in which it found that utilities require "10 years or more" to plan, license, and construct nuclear powerplants, and from which it concluded that:[377A]

> Even though some measures taken by the Commission are long term and have not been fully implemented, the prospects are not good for reducing future leadtimes for licensing and constructing nuclear powerplants. In fact, GAO believes that both the Commission and industry will have difficulty in maintaining the current time frame of 10 years.

The bulk of the time required for the process, the GAO study found, was required for construction, during which time,[377B]

> ...the utility completes detailed design work, construction, and pre-operation testing. Often, design changes occur at this time to (1) enhance methods of powerplant operation or maintenance, (2) incorporate better solutions to engineering problems, (3) reduce project costs, and (4) incorporate new or revised regulations or other safety requirements promulgated by NRC.
>
> Other factors significantly affecting powerplant construction times include (1) project financing, (2) utility and construction contractor management abilities, (3) timely procurement and delivery of materials, (4) availability of labor skills, labor productivity and labor strikes, and (5) the weather.

Table 3-8 summarizes the causes of delay from 1967 through 1976. Based on available data it is clear that the principal causes of delay in bringing new powerplants on line have been related to labor, and to the inability of the component manufacturers to deliver high quality equipment on schedule. Although changes in regulatory requirements may have caused, or complicated other problems, they have not been a major cause of delay in new powerplants. Legal challenges, environmental reviews, and public participation in the existing process, simply have not been statistically significant. Delay is a relative term, i.e., it is often a question of whose ox is being gored. As the New York Bar Association Study noted:[379]

> The word 'delay' itself implies a particular viewpoint on the problem. Unless one believes that utilities along should weigh electric power and the environment, the time needed for some regulatory consideration is time well spent if it improves the quality of the final decision. But, opinion varies widely as to the extent of appropriate review. Accordingly, there are as many ideas about the causes of delay as there are ideas about what form the licensing of power generating facilities should take.
>
> Thus, for those utility executives who see environment as an emotional fad, the source of the delay is the environmental intervenors. For the environmentalist who sees the administrative process as a sham, the real delay is the period of time during which the utility and the regulatory staff keep the plans secret. Similarly, utility lawyers criticize allegedly foot-dragging commission staffs who in turn blame the poor applications submitted by the utilities. The commissioners themselves blame reversals by the courts, while the courts castigate commissioners for begrudgingly administering laws designed to protect the environment.

TABLE 3-8

SUMMARY OF CAUSES OF DELAY: 1967 - 1976

CAUSES OF DELAY	67	68	69	70	71	72	73	74	75	76	TOTALS
Vendor Related Problems											154
Late Delivery of Major Components	5	3	5	3	5	-	12	9	10	-	
Equipment Failures*	9	5	7	5	1	-	6	1	41	-	
Factory Strikes	-	-	-	-	-	-	3	-	-	-	
Labor Related Problems											142
Labor Strikes	5	6	8	10	11	-	9	-	7	-	
Reduced Productivity	1	-	4	4	5	-	12	9	10	-	
Shortages of Manpower	6	5	6	4	1	-	10	3	4	2	
Regulatory Problems											51
Changes in Regulatory Requirements	-	-	-	-	-	-	14	10	5	-	
Delays in Obtaining Permits	1	2	3	2	-	-	3	5	6	-	
Utility Related Problems											38
Changes in Plans	2	-	-	-	-	-	6	1	15	1	
Financial Problems	-	-	-	-	-	-	-	-	9	3	
Changes in Design	-	-	-	1	-	-	-	-	-	-	
Miscellaneous Problems											34
Legal Challenges	-	-	-	-	-	-	12	-	4	-	
Unspecified Reasons	-	-	-	-	-	-	-	-	11	1	
Adverse Weather	-	-	-	1	1	-	-	-	4	-	

Source: Messing, M., Reasons for Delay in Powerplant Licensing and Construction, (Compiled From FPC and JCAE reports and Hearings) Environmental Policy Institute, Washington, D.C., March 1978, p.10.

3.4 Summary of Findings and Recommendations

This chapter, while focusing on energy decision-making, is entirely applicable to most, if not all, technological decision-making. It is an understatement to recognize that technology has impacts (both positive and negative) on the day to day lives of most people. Few, if any, people are immune to the consequences of technology and the impact that technology may have on human values. As the awareness of the role that technology plays in the quality of life has grown, so too has the demand by the public for the opportunity to play a significant role in the decision-making processes, which underlie technological policies and investments. Because the applications of technology involve considerations of human and societal values, citizens have begun to seek a greater voice and vote. "It is not difficult to see citizen dissatisfaction with nuclear power as a symbol of increasing dissatisfaction among some segments of the population with the economic and technological determinism that they feel has characterized governmental management of limited environmental resources and a broader and more pervasive dissatisfaction with governance itself."[380]

In a general sense, this entire chapter is aimed at assessing the implications (i.e., the pros and cons) of increased public participation in technological decision-making, and energy related decision-making in particular, and offer recommendations to provide for and assure effective public participation. The first section (3.1) examined the role of technological decision-making in a democratic republic. It set the stage by examining the characteristics of technology generally, how these characters affect values, which in turn generates conflict, resulting in the need for dispute resolution, and the relationship of technological decision-making processes to a democratic society. A number of conclusions may be drawn from this section, which set the stage for examining specific decision-making process in the next two sections. First, choices or decisions about technology and the regulatory processes that govern them generally reflect the values and concerns of a small group, rather than the values of the society at large. Second, the disparity

of values between those reflected in the decision-making process and the components of society at large can and do generate conflict. Third, western society is pluralistic in nature and contains a wide variety of values which are often at odds with each other. Fourth, the existing process that permits technological decision-making by scientists or engineers or regulated interests alone is incompatible with any notion of a democratic society. Finally, any notion of a democratic,pluralistic society requires that all values, no matter how extreme, must be reflected and considered in all decision-making processes which affect the society at large.

The second section of this chapter (3.2) examined ways to improve public participation mechanisms. Section 2.6 of Chapter Two showed that public participation is an integral policy of Minnesota administrative law. Section 3.2 addresses defects in the law identified in the literature as obstacles or barriers to public participation. The literature indicates that there are a number of pre-adjudicatative obstacles which have effectively inhibited participation by the public. These include (1) inadequate notification exists for the public to discover forums to express their concerns about decisions that affect them; (2) information and technical expertise needed by the public to present their cases and held by the government or regulated interests is unavailable, unknown or denied to public participants; (3) the administrative process has placed limits on the ability of the public to participate as "parties" in decision-making process by inhibiting or prohibiting the public's opportunity to initiate, to testify, to intervene in agency decision-making, or to seek review of agency decisions; and (4) no mechanism presently exists which facilitates public participation of unrepresented interests in the decision-making process. The following recommendations are offered to remove these barriers:

1. Notification procedures both under the Administrative Procedures Act and enabling legislation for energy related decision-making should include paid ads and press releases to state-

wide and local newspapers, wire services, and radio and television stations for each and every hearing. Further, all energy related agencies should develop special public service announcements as part of their notification procedures for all official hearings.

2. The content of the notice should be explicit enough to provide information on the nature, type, and location of the hearing. Further, the notice should explain a citizen's rights and responsibilities for participating in the hearing.

3. The notice of hearing should provide adequate time, at least 90 days prior to the start of the hearing, for the citizen to organize and prepare his case. Consequently, the notice of hearing should run at least once a week for eight weeks.

4. The Public Advisor citizen involvement tool should be extended to the certificate of need, environmental impact statement, permitting rates, and designated service area processes. Further, this should be accomplished by the creation of an office of public advisor to be established in a manner similar to the Office of Hearing Examiners.

5. The primary energy related decision-making agencies (MEA, MEQB, PSC, and PCA) should coordinate their information gathering and provide a joint information clearinghouse to give citizens easy access to energy related information.

6. Minnesota Statutes §15.1611 et. seq. should be amended to give citizens an unqualified right of access to energy-related information of a nonpersonal nature.

7. The Minnesota Statutes §15.1611 et. seq. should specify access to information procedures which include time limits, uniform fee schedules, a right to judicial review, a regulation and notification requirement, a indexing requirement, and a right to see all disclosable information.

8. Transcripts of agency hearings should be provided at little or no cost; multiple file requirements should be removed; and citizens should have open access to agency experts as advisors and witnesses.

9. Standing as requirement for judicial review of agency decisions should be removed, except for the case or controversy requirement of Article III of the U. S. Constitution. The Administrative Procedures Act, in particular Minnesota Statutes sections 15.0423, 15.0424, and 15.0426 should be amended to reflect this policy.

10. The Minnesota Administrative Procedures Act should be amended to guarantee any citizen the right to intervene in any agency action regardless of the nature of the citizen's interest. In particular, no qualification of the right to intervene shall be considered in decisions involving the siting of any kind of facility.

11. The Minnesota Administrative Procedures Act should be amended to require agencies to have an affirmative duty to consider all interests in arriving at a decision. Further, the courts in reviewing agency activities should evaluate whether or not the agency adequately and fully considered the interests of all parties and participants.

12. The Minnesota Administrative Procedures Act contested case procedure should be amended to permit the public to petition to initiate formal contested case procedures where informal procedures may now be used. The petition should be specific as to what action is requested and the need for the action. Denial of the petition should be subject to judicial review.

13. The legislature should create a variety of institutional mechanisms to effectively provide representation for unrepresented interests in governmental decision-making. Three mechanisms should be enacted: (1) an office of public counsel should be created in each regulatory agency to represent nonregulated clients in adjudicatory or rulemaking proceedings under the jurisdiction of the Attorney General; (2) a department of citizen advocate should be created on the cabinet level to augment the representation of unrepresented interests in agency decision-making; and (3) a center for intervention and technical assistance or group of centers should be created to assist interested persons and groups who wish to intervene in agency decision-making or in judicial review of agency decisions.

    The office of public counsel, the department of citizen advocate, and the center for intervention and technical assistance should (1) be statuatorily established and be provided with a separate appropriations budget line; (2) the director of each office should have complete administrative authority over the office; (3) each office should be empowered to intervene with full party status in agency proceedings; (4) each office should be empowered to seek judicial review of agency decisions; (5) the office of public counsel should have public complaint handling responsibilities; (6) the office of public counsel and the center for intervention and technical assistance should be permitted to advise and assist, including the undertaking of studies and information dissemination, independent groups and individuals who seek to represent broad interests before governmental agencies; (7) each office or center should possess adequate authority to obtain information needed to carry out their functions; and (8) each office or center should have adequate funding to assume these responsibilities.

The third section of the chapter (3.3) examines additional aspects of the administrative process necessary to assure public participation by those who wish to represent themselves. While the recommendations offered above are important in that they remove barriers in the process to public participants, they are insufficient by themselves to assure effective public participation. Since many of the decisions with which the public may want to participate involve complex technologies, adequate time and resources are essential for the public to effectively present its case. A review of the literature indicates that these two components (timeliness

and resources) are crucial for public interest involvement. The following recommendations are offered to assure that timeliness and lack of resources do not constitute insuperable barriers to public participation.

14. The public should be permitted to become involved in the planning decisions relating to energy decision-making at an early date. Applications for certificates of need and site compatibility as well as upon designation should take place at least two to five years earlier than at present. Notification of the application should be undertaken as recommended earlier (see recommendations 1-4). Ex parte communication with agency decision-makers should be prohibited. All documents filed should be a matter of public record as recommended earlier (see recommendations 6 and 8).

15. The Minnesota Public Utilities Act should be amended to prohibit rate increases until after the Public Service Commission makes a decision.

16. It should be the policy of the State of Minnesota to provide financing to nonprofit citizen organizations and unincorporated citizen groups in order to assure that the public can participate in adjudicatory or rulemaking proceedings. Whenever possible, the legislature should provide funding through application fees in adjudicatory cases. Otherwise, funding should be provided via a direct appropriation, either through the center for intervention and technical assistance (see recommendation 13) recommended above or through the agency itself. The criteria for eligibility should be limited to the technical quality and importance of the group's proposal and the need for the funds. The amount of funding provided to any individual or group should be flexible with the criteria being the complexity of the issues, the number of groups to be funded, and the amount of funds available.

17. The Minnesota Administrative Procedures Act should be amended to empower agencies to order "fee shifting" in cases of bad faith, willful violation of an agency order, or other egregious conduct.

18. The Minnesota Administrative Procedures Act should be amended to require the courts to provide legal fees to any plaintiff who brings an action against an administrative agency compelling the agency to do its job or challenging the agency's decision for being arbitrary and capricious, and wins, or in the opinion of the presiding justice has a legitimate issue, but still loses. Agencies should not be able to collect fees under any circumstances from the plaintiff.

Emotions run high on the wisdom of facilitating broader public participation in agency proceedings and in particular of subsidizing private individuals or groups at the regulated interests or at the taxpayers expense. The primary argument against broadening public participation is that of delay. Yet, as

section 3.3C notes, public participation is responsible for little, if any, delay in administrative decision-making. Further, many commentators believe that increased, effective public participation will reduce delay by raising legitimate issues early, thereby avoiding prolonged court cases.

Yet, as an NRC study observed, "most of those observed believed that these issues (nuclear power plant licensing) could and should be determined. A decision one way or another would neither bring the nuclear industry to its knees, nor wipe out intervenors. After all, what is under discussion is a concordant procedure for dispute resolution--not a clandestine plan for revolution."[381] We need, as attorney Mark Massel suggested, to take a fresh look at the regulatory process:[382]

> . . . government regulation has been treated as an insulated, technical activity of government. Much of the discussion has been founded on the implication--stronger because unstated--that regulation is a legal function that can be protected from the contamination of other government activities. This academic assumption has been so imbedded that most of the debating gambits have overlooked three significant features of the regulatory process: first, it is inherently a political activity that is a substantial element in modern economies; second, the regulatory functions are too intertwined with a host of other government activities to be set as a class apart; and third, while procedural problems are important, they are subsidiary to the objectives and accomplishments of the regulatory functions.
>
> Adequate consideration of the policy issues that are inherent in the regulatory process will depend upon a continuing awareness of our traditional anxiety about government regulation, an anxiety that stems from our inability to make clear-cut decisions about what functions we want government to undertake. Our ultimate public policy goals are an interesting compound of social, economic, political, and international aims. Many of these aims conflict with each other. At least, they give such an appearance. For social and political reasons, we want many independent private enterprises because we believe that they will insure the effective working of the democratic process and equality of opportunity; at the same time, we look to large corporate aggregations to satisfy certain economic and military objectives. Many look to government for the solutions to broad economic and social problems; but others are restive about government interference. We want to assure everyone of his day in court; yet, we are unhappy with the lengthy administrative hearings that this objective entails.

Public participation in administrative agency decision-making is, of course, not an end in itself. Rather, it is a means of insuring that regulation does in fact further the "public interest." Attacks on the process that the agencies too often favor and accommodate the desires and ends of the regulated interests are often voiced. If the response is to admit only the most well organized and financed groups to a position of influence (i.e. the regulated interests), the ultimate decisions will reflect the value of only a subset of the society. If the public interest is truly defined through process, then the public must be able to effectively participate in the process.

CHAPTER FOUR

SELECTED ISSUES IN ELECTRICAL ENERGY POLICY

The purpose of this study is to examine the administrative regulatory processes affecting electrical energy. This chapter reviews three aspects of electrical energy policy: (1) power plant siting and the environment; (2) conservation of electrical energy; and, (3) electric rates and the poor. In addition, a summary of the chapter is provided.

As noted in the forward, there were a number of limitations placed upon this study. These limitations greatly restrict the scope of inquiry this report may address. For example, the study does not evaluate: (1) the viability or feasibility of specific energy technologies; (2) the institutional structure for supplying electricity, i.e., the type of ownership, the nature of supply policies, and economic aspects of utility structure and regulations; (3) non-regulatory factors relating to the demand for electricity, including the accuracy of forecasting techniques, and the technology for reducing demand; and (4) rate structuresand designs, including such specific issues as "fair rate of return" and "work in progress". The purpose of this study is to address public administration or "process" questions, i.e., is the process structured so that technological and value factors can be considered. Questions relating to the appropriateness, feasibility, and viability of specific technologies is beyond the scope of this study. Questions relating to the "rightness" or "wrongness" of particular values are also beyond the scope of this study.

4.1 Power Plant Siting and the Environment

In the last forty years people have become accustomed to an abundant supply of electricity at relatively low cost. While the use of electric power over these last few decades has been rising at an average rate of consumption of over seven percent per year, the rate of consumption (in the last few years) has dropped off to over four percent. The still increasing demand for electricity is met by the construction of more and more power plants and lines. The building of electric energy facilities

and the siting of these facilities has in recent times raised substantial conflict. The conflict centers on the competition between many important social interests. Two interests that this chapter is concerned with include (1) the need to provide an adequate, reliable supply of power; and (2) the need to protect the public health and to prevent further environmental degradation. The competition between these two interests is for the utilization of scarce resources, i.e., the use of air and water for cooling and plant discharges versus the need for clean air and water for life; and the use of land for electric energy facilities versus the need to preserve a way of life.

A civilized and democratic society requires non-violent mechanisms to resolve disputes. Traditionally, disputes between individuals have been resolved in the courts. Yet, it is now recognized that the courts alone are inadequate to resolve conflicts that go far beyond a dispute between two individuals. For example, the dispute over nuclear power involves not just a conflict between two individuals or groups of people, but involves a conflict between differing values. In the nuclear power case, the conflict is compounded by the qualitative as well as quantitative differences between it and other technologies which provide electric energy. While the literature discussing this conflict is voluminous, the review of this literature is beyond the scope of this paper.[1]

The very purpose of the courts is to resolve disputes over things and actions. The concept and the nature of a court of law grew out of conflicts between individuals over land (real property), goods (chattel), contracts of every sort, tortious actions (injury), and the guilt or innocence of individuals who were alleged to have engaged in behaviors unacceptable to the state and/or society.[2] The legislative process is usually looked upon as the best mechanism to make policy or law which affects values.

With the advent of electric power, the legislature enacted a policy to assure a reliable supply of power available to all. As technology in general affected the health and welfare of the people and their environment, the legislature enacted

policies to protect the air, water and land. As noted in the previous chapter (Chapter Three, Section 3.1B), if two things are related it becomes impossible to maximize for both things. When those things are electric energy and a safe and healthful environment, and to the extent that they both compete for the same things (air, water, and land), it is readily apparent that you cannot maximize both. The original policies created by the legislature paid scant attention to this truism. In effect, the legislature decided to maximize for both policies. This has resulted in continued conflict. The continued conflict required the legislature to take remedial action, which came in the form of the Power Plant Siting Act, as amended, and the Energy Agency Act, as amended. A review of the Energy Agency Act and the Power Plant Siting Act (PPSA) is provided in Chapter Two (Sections 2.2 and 2.3). A review of state siting laws shows that the Minnesota law differs little from the average state power plant siting laws in the United States.[3] The key questions, then, become these: (1) do these laws resolve the inherent conflict in values that existed in the original policies? (2) do these laws make decisions which balance the competing interests? and (3) how are environmental factions reflected in these laws.

Does the PPSA and the Energy Agency Act resolve the inherent conflict in values that existed in the establishment of the original policies? A review of these two laws reveal four objectives for the siting of new energy facilities. First, the laws attempt to insure that environmental values are given weight in any decisions to construct a new power plant and where to put it. Second, the laws attempt to insure an adequate and reliable supply of electricity. Third, the laws attempt to insure that the process by which sites are chosen is impartially administered and adjudicated. Finally, that laws attempt to minimize the disruption of existing agencies and the social needs they serve, including pollution control activities and land use management.

There are a number of problems within the process and these objectives which contribute to the perpetuation of the conflict in values. A Rand Corporation study, conducted for the California General Assembly, identified the following problems as having the greatest bearing on the power plant siting decisions:[4]

1. Some important issues receive inadequate, fragmented, or no consideration because they "fall between the cracks" of the various agencies. They include:
   - Questions of the conservation and allocation of resources such as fuels and fresh water, beyond the imperfect allocation of the market system and uncoordinated governmental intervention.

   - Consideration of potential, socially preferable future uses of the land around the proposed plant or transmission lines that would be foreclosed by their installation. (Comprehensive land-use planning and policy guidelines are required to clarify the potentialities and optimum uses.)

   - Identification of sites, transmission lines, methods for electricity generation, and overall strategies for system development alternative to those proposed by the utility.

   - Consideration of a full range of means for conserving electricity or slowing growth in demand as an alternative to expanding power facilities or as a means of averting power-system overloading and blackouts.

2. There are seldom clear or consistent guidelines, standards, criteria, and policies from governmental agencies to aid utilities in their long-range system planning and site selection. Particular problems include:

   - Changing standards for air- and water-pollution control.

   - Absence of reliable standards for land-use compatibility, due to lack of statewide policy and to local land-use plans that often have no logical basis, are subject to capricious change, or do not have public acceptance.

   - Lack of legislative guidelines or clear public consensus about the objectives and priorities to be followed in resolving conflicting needs or values.

3. Multiple jurisdictions and licensing procedures often overlap and are uncoordinated, resulting in:

   - The necessity for many separate hearings, sometimes covering the same issues.

   - The possibility of different standards imposed for the same aspect of regulation.

   - The possibility of conflicting or infeasible requirements due to independent standards for different aspects of regulation (e.g., air pollution versus water pollution.)

   - The possibility that the community surrounding a potential site will reject it in order to transfer its effects to another community.

- Delays and uncertainty in licensing or inability to license any alternative.

4. There is no consistent system of long-range planning to provide for:

   - Public participation.

   - Early identification of site alternatives and resolution of conflicts before either power or environmental issues become critical.

   - Consideration of the demand for energy in determining the need for new capacity.

5. There is no research and development program that:

   - Presents state priorities to federal funding agencies and attempts to influence federal research and development policies and actions to meet the needs of California.

   - Provides funding for new technology to better meet energy demand with the least negative environmental impact and to develop better methods for siting plants.

In sum, each of the objectives noted above, which may individually be socially valid, are still often in conflict with one another. Consequently, the laws result in the making of a decision, but not necessarily the "right" decision or the "best" decision. The process is basically a tradeoff between objectives and not a resolution of the conflict in values inherent in the objectives.

Do the decisions that arise from the certificate of need process and the power plant siting process result in a balanced decision of the competing interest? Historically, regulatory agencies responsible for licensing new power plants have generally favored utility interests, subordinating environmental concerns to the desire for abundant and economical power. Siting decisions in the past have generally been based on load center proximity, land requirements, fuel supply, access to transportation, and proximity to a direct water source.[5] In making these decisions agency officials often paid scant attention to environmental ramifications.[6] Despite recent efforts by the legislature to require agencies to be more responsive to environmental needs, state agencies including the MEA and MEQB continue to make site-by-site decisions, which permit new plants to be constructed whenever electricity

needs require them. The defacto policy implications of simply constructing new power plants according to demand projections are tremendous, but, unfortunately, are beyond the scope of this paper.[7] However, it is recognized that an understanding of future demand is essential to formulating constructive policies to control demand. For example, if it is expected that the growth in demand for electricity would not taper off, decision makers could develop and implement demand curbing policies in order to restrain demand within reasonable limits.[8]

When agencies permit the construction of new power plants whenever electricity needs require them on a site-by-site basis, they ignore fundamental questions concerning the amount of electricity that should be consumed and the sources of power that should be exploited. As Clifford Case and David Shoenbrod noted:[9]

> [Such an] administrative scheme avoids the most important issues concerning electric power and the environment. . . The administrative process asks whether a facility is needed to make supply equal demand but assumes that nothing should be done to shape the demand for power. It asks whether a plant is well designed for its type but ignores the alternative of building a different type of plant. It asks whether a plant incorporates technological advances but fails to allocate consciously the research funds that will produce tomorrow's improvements. It investigates the immediate area of a utility's proposed site in great detail but generally does not question whether the plant should be located in a different region. The fundamental issues of how much electricity should be consumed and what sources of power should be exploited. . . reach resolution as a random by-product of many private and public forces pursuing their disparate missions.

In sum, instead of consciously balancing competing economic, environmental and social considerations, the regulatory process leaves the fundamental questions to be resolved randomly, if at all.

How are environmental factors reflected in the Power Plant Siting Act and the Energy Agency Act? The purpose of these two laws is, as noted above, to make a decision. The decision that is derived from the process provided by these laws determines the size, type, timing, and location of new electric energy facilities. The size, type, and location of energy facilities is the ultimate concern of those whose primary interest is to protect the public health and prevent further deterioration of the environment. The decision by government agencies on size, type,

and location of electric energy facilities is not the first step in the process. Rather, the decisions made by the agencies is the last step in a long planning process.

It is important to recognize that the planning process is controlled almost totally by the private sector. As noted in the previous chapter (Chapter Three, section 3.3A), agency involvement in the planning and decision making processes for new energy facilities does not formally occur until a utility files some type of application. Citizen involvement usually does not occur until the agency takes the form of a request for zoning, effluent permits, need determination, site compatibility determination, etc. Consequently, the private sector, i.e., the utility, controls to a large extent the initiation of agency and citizen involvement in the actual decision making relating to the siting and construction of energy facilities. In sum, "the utility decides in secret what the energy requirements of the area it serves, are. Then in secret it decides whether it will propose a nuclear plant--what kind of a nuclear plant and how big--or a coal fired plant or something else. Then, again as surreptitiously as possible, it surveys its area and picks out a site. At this point it springs its decision on the people."[10]

Recognizing that the planning process which ultimately determines the size, type, and location of electrical energy facilities rests almost wholly with the utility, whose primary interest is to maintain an adequate and reliable supply of electricity, how are public health and environmental questions addressed in that planning process? No one knows for sure, since the process is conducted in secret. This brings us back to the previous question, how do the state agencies (MEA and MEQB), which ultimately approve utility decisions, address environmental factors? This question can be broken down into two areas. First, how are governmental decisions on size, type, and location made and is the present process the best way to make these decisions? Second, at what point and through what mechanisms is environmental and public health information presented to the decision makers? The rest of this section will address these areas.

A. Size, Type, and Location

The decision making process for evaluating and approving the utilities plan for size, type, and location involves two steps. In the first step the utility submits an application for a "certificate of need" to the Minnesota Energy Agency (MEA). "The purpose of the Certificate of Need Program is to insure that large energy facilities built in Minnesota are needed and represent the best alternative available to the state."[11] The areas of responsibility of the MEA include size, type, and timing of large energy facilities. The rules governing the contents of applications require, among other items, detailed information on peak demand and an annual electric consumption forecast (6 MCAR § 2.0635) and specific information about the size, type, and "anticipated areas where the proposed facility could be located" (6 MCAR § 2.0633). The Energy Agency Act requires that the MEA make a decision within six months after receipt of the application.[12] No certificate of need will be granted unless the applicant "has justified its need."[13] There are eight criteria the director uses to evaluate need (see Table 2.2, supra). Under the rules promulgated in accordance with the provisions of the Act, a certificate of need must be granted if the agency determines that:[14]

1. The probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states, considering:

2. a more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record by parties or persons other than the applicant, considering:

3. it has been demonstrated by a preponderance of the evidence on the record that the proposed facility, or a suitable modification thereof, will provide benefits to society in a manner compatible with protection of the natural and socioeconomic environments, including human health, considering:

4. it has not been demonstrated on the record that the design, construction or operation of the proposed facility, or a suitable modification thereof, will fail to comply with relevant policies rules and regulations of other state and federal agencies and local governments.

In the second step, the utility submits an application for site compatibility to the Minnesota Environmental Quality Board (MEQB). The purpose of the Power Plant Siting Act is to "locate large electric power facilities in an orderly manner compatible with environmental preservation and the efficient use of resources."[15] The areas of responsibility of the MEQB include the development of an inventory for power plant sites and the designation of electric power sites and transmission line routes. The Power Plant Siting Act and the rules promulgated thereunder require the utility to submit an application to the MEQB for "designation of a specific site for a specific size and type of facility. The application shall contain at least two proposed sites."[16] Within one year after receipt of the application (plus an allowable six month extension), the MEQB must grant or refuse a certificate of site compatibility or route designation.

In sum, an electric utility submits an application to the MEA for a decision on the size, type, and timing of the facility. Once this is granted, with possible modification by the MEA, the utility then submits an application to the MEQB for the designation of a specific site, for the previously approved size and type of facility. The MEQB then designates a site for the particular size and type of plant with possible modifications.

Can size, type, and location be separated from each other, i.e., can location factors affect size and type decisions and vice versa, do size and type decisions affect location? The decision to construct a particular type of plant, of a given size, at a specific location has many consequences. Such a decision can affect the supply and utilization of important natural resources such as fossil fuels and water, the future use of land in the area surrounding the plant, the local and regional environment, and the economy of the local area, as well as the supply and cost of electricity. These matters in turn are related to other important issues such as public health, public works, transportation policy, the general economy, and the supply and demand for other forms of energy. According to the Minnesota Pollution Control Agency (MPCA), location factors have a major impact on size and type

decisions:[17]

> Location factors have potential for affecting size and type decisions as indicated in the response to question 1 above. Application of pollution control requirements can be done precisely only when the location, site, environmental characteristics and plant design are known in detail. In the absence of such detailed knowledge at the time when the size and type decisions are being made, it is possible to provide only estimates or approximations of pollution control requirements on a general basis. This being the case, a search for a suitable site must then be instituted, which may or may not be successful in finding a single site to satisfy all applicable utility and regulatory requirements. A new electric power plant, for example, must meet federal Prevention of Significant Deterioration (PSD) requirements and the allowable ambient air contaminant increase will be affected by proximity to a non-attainment area or a pristine area.
>
> In considering the impacts of coal or nuclear power plants, risks to public health must be considered. For example, it is doubtful that a nuclear power plant would be sited in the Twin Cities area. District heating applications are a good example of where location factors could heavily influence size and type decisions. Location factors, thus, should be taken into account at the time when the size and type decisions are made. We believe this can be accomplished only by having available a reliable inventory of potential sites which are known to be suitable for the location of various sizes and types of plants. Although such an inventory was required by the original power plant siting act, this requirement was not successfully implemented and a suitable site inventory is not yet available. We would recommend that the plant site inventory should consist of state acquired holdings of specific sites which have been evaluated in sufficient detail to leave no doubt as to their suitability for use for this purpose. Location factors are of paramount importance from the viewpoint of environmental effects and economic feasibility.

Consequently, size, type, and location decisions cannot and should not be made in isolation from other public policy matters.

The trend by utilities toward large plants and power complexes may initiate or aggravate existing environmental problems and may undermine the reliability of the power supply. The present practice in the utility industry is to build fewer, but larger plants ostensibly to achieve "economies of scale" and lower unit costs of production. It is expected that much of the new generating capacity to be installed in the next 20 years will come in the form of power plants of 1000 MW (megawatts) to 3000 MW. Along with the increase in the size of units (from 300 MW in the early

1950's), has come the tendency to locate the many and larger units at single sites. Power complexes of 5000 MW are expected to become common in the next 20 years.[18]

The trend toward larger units and power complexes raises serious environmental problems. Some have argued that larger plants offer an environmental benefit "because less pollution per kilowatt hour can be produced in a larger and more efficient power plant" and that emissions from such power plants are easier to control than emmissions from several small plants.[19] This argument ignores the fact that amounts of generating capacity at one site intensify the impact of power generation on the local environment and, "if uncontrolled, could overwhelm the surrounding environment."[20] In addition, the ease of emission control argument in favor of large electric plants ignores the relative inefficiency of current methods of electric power generation and transmission, with the resultant increase in pollutants, as compared to direct conversion of fuel to useful energy on the user's premises.

The trend toward larger units may also undermine the reliability of the power pool. All utilities maintain a reserve requirement designed to protect against outages, whether scheduled or unscheduled. It is recognized that, as a general rule, when units are added to a power system which have capacities larger than the system average, the required generation reserve is also increased. This means that the initial installation of a larger unit to a system of smaller units will require a sharp increase in reserve requirements, i.e., a requirement for the utility to add more generating capacity to a system to insure against the loss of increasingly larger units. Consequently, "the trend toward larger units at single locations must be reexamined with a view toward ensuring system stability, reliability of power supply, and encouraging sound environmental planning of utility facilities."[21]

The type of power plant with its associated environmental impacts can affect the location of the plant. Nuclear power plants must be built away from populated areas, have access to adequate cooling water, and meet radiation emission standards. Fossil fuel plants must also have access to cooling water and must meet air and water

quality standards. Consequently, the type of power plant chosen, with its own prior constraints, indicates that there is little flexibility in the site selection.

The MEA and the MEQB are aware that location factors do affect size and type decisions. As the MEQB noted:[22]

> The location, size and type of large electric power facilities are significantly interrelated. The interrelationship involves both technical siting opportunities and constraints and public acceptance of facility siting. An example of a technical factor is that the Twin Cities and a few other densely populated areas provide the best opportunities for district heating with the waste heat from power plants. The size of power plants may have a significant effect of public acceptance based on minimizing localized impacts and sharing the burdens of power plants. However, it is not clear whether the affected public would find, say, twelve 200 megawatt or six 400 megawatt power plant sites any more acceptable than a single 2400 megawatt site. Size and type modifications should be considered for their potential to improve siting decisions.

In sum, every electric energy facility is part of a system of such facilities and is interdependent on other parts of the system. The system impinges upon land, air, water, and other resources which extend far beyond the vicinity of individual plants and their location. Size, type, and location as factors in a decision are clearly interrelated with each other as well as with larger public policy issues.

1. Structuring Decision Making

Because of the relationship between the decision on size, type, and location and other important public policy matters (noted above), a basic problem in the design of a decision making process is how to structure government responsibility in order to coordinate the size, type, and location decision. If an agency is to be given responsibility for regulating the siting of power plants such as the MEQB, then a decision must also be made on the scope of its responsibilities in relation to other important matters affecting siting, in particular size and type. A report by the Rand Corporation to the California State Assembly on power plant siting noted that there are many possible ways to divide decision making responsibility for power plant siting, and other functions. The report recommended the following guidelines for the design of an appropriate state mechanism for

decision making and dividing agency responsibilities:[23]

- Group functions that are already linked, either naturally or in other important ways.
- Distinguish among responsibilities for policymaking and administration, and between implementation (development) and regulation.
- Take account of natural tendencies of group and institutional behavior that may indicate potential biases or other weaknesses.
- Avoid disrupting existing agencies or systems that are working well.
- Insure that the siting agency has the proper balance of responsibilities to provide technical competence and impartiality.

How do the Energy Agency Act and the Power Plant Siting Act fare in an analysis based upon these guidelines? The first guideline recommended the grouping of functions that already are linked together. One function that is clearly linked is that of the decision of size, type, and location. The MPCA believes that the legal process should be amended so that size, type, and location decisions are made together:[24]

> We believe that the siting or location decisions should be made in concert, or concurrently, with the need decision which determines the size, type and timing. This could be accomplished by amending the power plant siting and certificate of need statutes or regulations to acquire simultaneous submission by the utility of applications to the Energy Agency and the EQB for certificates of need and site compatibility, respectively. This procedural change would allow for maximum public participation in evaluation of the need for and location of the proposed plant, minimize duplication with respect to public hearings and related matters, and eliminate potential conflicts among size, type and location decisions.
>
> There should be a focal point in the regulatory process where size, type and location factors can be considered concurrently with detailed environmental impact information available. All these factors are interrelated and impact each other. To be consistent with the Environmental Policy Act (Minnesota Statutes 116D), decisions of type, size and location should not be final until the EIS is completed. This is the ideal situation.
>
> The current process is not ideal because it is segmented and there is no focal point where many interrelated factors can be considered. A major problem that has resulted has been one relating to public participation. As a power plant proposal goes through the existing process and more detailed information is developed, increased public concern is expressed. When specific information concerning impacts of a power plant on a geographical location is finally developed in the EIS, it is already too late for citizens in that area to balance their impacts against or affect the need and siting decisions made.

> If a local government or citizens group in a geographical area were concerned over impacts of siting a power plant in their area, in the existing process they would have to participate in every hearing concerning every power plant application for a Certificate of Need.

Hubert Van Dyke, director of the Office of Siting of the Federal Energy Administration has noted that "it is very important, in considering a specific facility site, to consider all the supporting elements to go to making a viable system."[25] Clearly, size, type and location are the crux of the elements that go into a siting decision.

The second guideline suggested the wisdom of distinguishing among responsibilities for policy making and administration and between implementation (development) and regulation, i.e., to have separate institutions for separate roles. This guideline is the same as one of the recommendations that came from Clifford Case, III and David Shoenbrod's analysis of electric and environmental policies.[26] One way to distinguish among responsibilities is to place size, type and location together in one agency such as the MEQB since under the first guideline they would be inseparable. Both the Special Committee on Environmental Law of the American Bar Association and the Energy Policy Staff of the President's Office of Science and Technology have recommended that a single agency have jurisdiction over siting decisions and "would bring together all the environmental and power supply concerns."[27] General policy making would reside with the legislature and the administration of general energy programs with the MEA. One administrative process that would remain at the MEA would be the certificate of need process, but a process that would determine need without determining size and type.

The third guideline suggested that in designing a decision making process one must take into account the natural tendencies of group and institutional behavior which may indicate a potential bias or other weakness. This guideline could be translated into a question: Why not place size, type, and location decisions in the MEA instead of the MEQB? One reason for not doing so is that the MEA does not deal with location decisions. The MEQB, however, does deal with size and type and has the authority to modify size and type decisions. This, therefore, represents

a weakness in the MEA capability. In addition, the MEA does not deal with the environmental consequences to the same extent that the MEQB does (See Section 4.1B, infra, for more details).

In addition, there seems to be a reluctance on the MEA's part to deal with the issue of type. In reply to a questionaire, the MEA noted: "we have not learned enough about the present process to advocate a large shift in the determination of type. The Agency believes that the system should be given a chance to work before we decide on substantial modifications to it. The agency believes that the criteria now used to determine type are appropriate."[28] This position of the MEA is in sharp contrast to the intent of the 1973 report of the Energy Policy Task Force of the MEQB: "The State. . . should be authorized to determine what type of fuel will be used in all new electric generating plants."[29] Finally, neither the Energy Agency Act nor the rules promulgated thereunder reveal any specific criteria for type. The type decision is basically made by the utility with the burden of proof on others to show why such a choice is not appropriate. Because of the difficulty in disproving the utility position, the Act would seem to provide a natural tendency toward accepting utility type decisions. On the other hand, the MEQB has recognized that "clarification and streamlining of the Board's authority to modify size and type to minimize human and environmental impacts might be in order to assure that the authority could be exercised in an effective and responsible manner."[30] The importance of the type decision cannot be understated:[31]

> Determination of the type of facility should be constrained by the same limitations which are now included in the power plant siting act with respect to location; i.e., it should not be permissible to certify a need for a specific type of plant if that type of plant cannot be located or operated in conformance with other state agency regulations. The potential for disastrous human and environmental effects from failures of nuclear plants and waste disposal facilities is so great that these considerations clearly should override any certification of need for this type of plant in Minnesota. A certificate of need for this type of plant should be issued only as a last resort, after every other feasible means of satisfying the need for the energy has been exhausted.

The fourth guideline recommended not disrupting existing agencies or systems that are working well. One indicator for a good functioning administrative process is how well the decisions are accepted by the public. The November 2, 1978 notice of the annual public hearing on the power plant siting program required under PPSA, summarized citizen comments raised during the annual hearing on the power plant siting inventory program. With regard to plant size and type, the notice of hearing stated: "Public concern on the size of electric power generating plants is so significant that it is important to consider size variations."[32] Allan Jaisle, manager of the power plant siting program at the MEQB stated in testimony before the House Environment and Natural Resources Committee: "There has been considerable public discussion on the segmented nature of the regulatory process for electric power facilities. During the Board's decision process to determine facility location, questions are repeatedly raised concerning the need for and the particular size and type of facility which has already been authorized by the Energy Agency. It is essential that location and need decisions be much better coordinated."[33] The public dissatisfaction with MEA size and type decisions would appear to indicate that the Certificate of Need program at the MEA is not working well.

A second indicator of how well an administrative program works is the frequency to which a decision is modified at a later date. Part of the certificate of need function is to evaluate the utility's projected demand for new facilities. A few years ago NSP (Northern States Power Company) asked for and received a certificate of need for two 800 MW coal-fired plants at its Sherco site, i.e., Sherco 3 and 4. A short time later NSP modified its request by eliminating Sherco 4 and requesting only one 800 MW facility (Sherco 3). A couple of years ago Minnesota Power and Light Company (MP&L) applied for and received a certificate of need for an 800 MW facility at Floodwood-Pine Lakes. Recently, this was modified to a 500 MW facility. It would appear that the MEA has not paid close enough attention to a utility's demand forecast. The inability of the MEA to catch the actual demand projection in the MP&L application is surprising since the MEA believes it "now has sophisticated

forecasting methodologies which are independent of and are believed to be more accurate than those of the electric utilities."[34]

The fifth guideline suggested that one should insure that the siting agency has the proper balance of responsibilities to provide technical competence and impartiality. The balancing function would be, as noted earlier, to balance the siting decision, i.e., the size, type, and location decision, with concerns about the environment. The MEQB in addition to the function of siting power plants and lines also has the responsibility under the Minnesota Environmental Policy Act (MEPA) to consider the environmental consequences of major actions, such as building power plants and lines, in its decisions. Therefore, the MEQB would be better suited to balance these two issues than the MEA.

RECOMMENDATION: SIZE, TYPE, AND LOCATION DECISIONS SHOULD BE MADE TOGETHER IN ONE AGENCY. THE AGENCY BEST SUITED TO MAKING THIS DECISION IS THE MEQB. THE MEA SHOULD CONTINUE TO ISSUE A CERTIFICATE OF NEED BASED ON FACTORS THAT AFFECT DEMAND WITHOUT REGARD TO THE SIZE(S) AND TYPE(S) OF FACILITIES NECESSARY TO MEET THAT DEMAND.

B. Public Health and Environmental Information

There are three stages in the segmented administrative processes for siting plants and routing lines when public health and environmental information is considered. These include the certificate of need stage, the power plant site and/or line routing designation stage, and the permitting stage. During the certificate of need stage, public health and environmental information is considered in two ways. First, the Minnesota Energy Agency (MEA) is required to prepare an environmental report (ER) on the power plant or line.[35] The purpose of the ER is to provide an evaluation of the environmental impact of the proposed action and its alternatives. The ER does not include all the requirements of the more detailed and exhaustive environmental impact statement (EIS) (see Table 2.5 for the content of an EIS). In addition to the ER, other state agencies who issue permits for siting, construction, and operation of power plants and lines are required to submit "position" papers to the MEA for its consideration.[36] No criteria exists for what should be included in

these "position" papers.

During the power plant site or line/route designation stage, public health and environmental information is considered in three ways. First, an environmental assessment worksheet (EAW) is prepared by the responsible agency: the Pollution Control Agency (MPCA) for power plants and the Minnesota Environmental Quality Board (MEQB) for lines though this is rarely done on major plants or lines.[37] The purpose of the EAW is to quickly assess whether an action is major, i.e., whether it could significantly affect the quality of the environment, and whether it is of more than local significance. MEQB rules spell out the content of the EAW.

Second, an ER is prepared by the MEQB for either the plant or line under consideration (plants and lines are considered separately under the MEQB rules).[38] The ER provides an evaluation of the "exclusion criteria, avoidance areas and site selection criteria" as provided in the Power Plant Siting Act (PPSA) and its regulations (see Table 2.4 for these criteria) as well as the subject areas required in a draft EIS required by the Minnesota Environmental Policy Act (MEPA) and its rules (see Table 2.5, supra, for the content requirements of an EIS). The ER in this second state is not meant to be as detailed or exhaustive as an EIS. Finally, environmental information is also provided through another set of "position" papers required to be prepared by state agencies required to issue permits for the construction or operation of power plants or lines.[39] The "position" papers are usually presented orally at the siting and routing public hearings. Again, no criteria exists for what should be included in these "position" papers.

In the third or permitting stage, public health and environmental information is provided in two ways. First, a draft EIS is prepared on a specific plant or route, which has been designated by the MEQB.[40] The draft EIS, if required by the Board, is prepared by the MPCA for plants and the MEQB for lines and is a "detailed and exhaustive document." The criteria for the content of the draft EIS is provided in Table 2.5 and is usually completed prior to site or route designation and the public hearings. After public comment, a final EIS is prepared.[41] The final EIS includes the draft EIS, any changes to the draft EIS, plus all comments received by the MEQB and the

MPCA on the draft EIS. The final EIS is completed after the need decision and the site or route decision has been made. The draft and final EIS prepared during the permitting process cannot consider the need for the plant or line nor any alternative sites or routes which were not designated by the MEQB for inclusion in the EIS. The ERs, the EAW, and the "position" papers which are prepared in the first two segments of the process are distributed prior to or during the hearings held at that segment of the process.

With the exception of the "position" papers, which are required by both the Minnesota Energy Agency Act and the Power Plant Siting Act, the remaining information gathering documents, including the environmental assessment worksheet (EAW), the environmental report (ER), and the environmental impact statement (EIS), are required by the rules promulgated under the Minnesota Environmental Policy Act (MEPA). (An overview of MEPA and its similarity to the National Environmental Policy Act (NEPA) is provided in Chapter Two, Section 2.3B.) Both of these laws altered the decision making processes of administrative agencies in a number of ways. First, they expanded the mandates of agencies through the enactment of an environmental policy. Second, they required the preparation of an annual report on the quality of the environment. Third, they established action forcing procedures to implement the environmental policy, i.e., the impact statement process. Finally, they altered the way agencies make decisions on matters that affect the environment.[42]

NEPA and MEPA altered the way agencies make decisions in two important ways. First, these laws do not just establish a broad environmental policy. They also "laid the groundwork for establishing a series of procedures whereby environmental considerations could be fed into agency decision making routines."[43] The key to this "groundwork" is the environmental impact statement (EIS) process. The purpose of the EIS process was clearly articulated in this new draft Council on Environmental Quality (CEQ) regulations on the EIS process:[44]

> The primary purpose of an environmental impact statement is as an action-forcing device to insure that the policies and goals defined in the Act are infused into the ongoing programs and actions of the Federal Government. It shall provide full and fair discussion of environmental impacts and shall inform decision makers and the public of all reasonable alternatives available for

> achieving Federal goals and shall compare the impacts of those alternatives on the human environment. Agencies shall focus on significant environmental issues and alternatives and shall reduce paperwork and the accumulation of extraneous background data. Statements shall be concise, clear, and to the point, and shall be supported by evidence that the agency has made the necessary environmental analyses. An environmental impact statement is more than a disclosure document. It shall be used by Federal officials in conjunction with other relevant material to plan actions and make decisions.

In short, the EIS is first of all a disclosure document, i.e. (an information gathering procedure). "Policy makers at least need to be informed about how their policies affect the quality of air, water, and land" before they make a decision.[45]

Second, these laws are more than just an information gathering tool, they are also an action planning procedure. It has been long recognized by scholars in public administration that policy emerges from a series of unconnected actions rather than from reasoned decision making.[46] Such fragmentation can produce decisions which individually make sense, but which together do not. The environmental policy acts were designed to help correct this problem. As noted in the legislative history of NEPA:[47]

> Important decisions concerning the use and shape of man's future environment continue to be made in small but steady increments which perpetuate rather than avoid the recognized mistakes of previous decades. NEPA told agencies to consider the broad context and commanded individual agencies to inform it if their powers were not adequate.

A recent Nuclear Regulatory Commission (NRC) study has noted that the legacy of NEPA in improving the coordination of decision making among agencies has been substantial. There are a number of reasons why improved coordination and effectiveness in decision making have resulted from National Environmental Policy Act (NEPA). First, NEPA has fostered specialized administrative staffs to review and assess the EISs. Second, the EIS process has promoted greater realization of the impacts which a decision by one governmental agency has on other agencies mandates and on state and local activities. Third, detailed information and analysis of these impacts has occurred early enough in the decision making process so the

action planning potential could be realized before irretrievable resources were spent. Fourth, the Act has provided for review of the EIS document by the public (interested people and groups), which has helped to identify additional impacts, information, and values which may not have been considered. Finally, the Act which requires the agencies to consider alternatives to their proposed decision, permits agencies to make the most environmentally sound decision compatible with the agency's function.[48]

It must be recognized that "the increased governmental awareness resulting from NEPA is, however, only the first step toward establishing effective inter-governmental coordination. While an understanding by the government's right hand of what the left hand is doing is necessary to achieve comprehensive decision making, it is not in itself sufficient. What is needed are mechanisms to ensure that a comprehensive approach to formulating decisions is adopted at all stages of the decision making process."[49]

Are some of these elements, which have resulted in improved coordination and effectiveness in decision making, missing from the Minnesota Environmental Policy Act (MEPA), as implemented by the rules promulgated under the Act? As noted previously, the MEQB rules have special procedures for identifying the environmental impact involved in siting plants and routing lines. These procedures are different from the normal EIS procedures used to determine the environmental and public health impact of all other proposed actions. Consequently, some aspects of the following analysis are not necessarily valid for the normal EIS procedure (non-power plant and line procedure). The analysis which consists of six parts, analyzes whether MEPA (1) considers all possible environmental effects at each stage of the decision making process; (2) provides for adequate staff to review the environmental impacts; (3) permits adequate consideration of other agency mandates in the decision making process; (4) provides for timely consideration of the environmental impacts of the proposed action; (5) provides for reasonable public review of the environmental information documents; and (6) provides for adequate consideration of alternatives

to the proposed action.

1. All Possible Effects

Does MEPA consider all possible environmental effects at each stage of the decision making process? MEPA requires agencies "to use all practicable means" consistent with state policy to protect the environment, including the use of a "systematic, interdisciplinary approach"; "identify and develop methods and procedures that will ensure that environmental amenities and values. . . will be given equal consideration in decision making"; to "recognize the worldwide and long range character of environmental problems"; to "make available. . . information useful in . . . meeting the policies of the state"; and to "initiate the gathering and utilization of ecological information in the planning and development of resource oriented projects."[50] Further, "where there is potential for significant environmental effect resulting from any major governmental action. . . such action shall be preceded by a detailed statement."[51] The meaning of these words is analogous to NEPA's requirement that the government "use all practicable means", "to the fullest extent possible" to protect the environment.[52] The consequence of these requirements is that "at the very least, NEPA [and MEPA are] an environmental full disclosure law. . . to all known possible environmental consequences of the proposed agency action."[53]

A Senate Committee on Interior and Insular Affairs report noted that this language was drafted in response to the belief that agencies had given inadequate attention to environmental consequences of their actions due to "an ignorance of and disregard for man's relationship to his environment."[54] The report extensively discussed the lack of any means for relating knowledge and policy:[55]

> In pending legislation (NEPA) the knowledge assembled through survey and research would be systematically related to official reporting, appraisal, and review. The need for more knowledge has been established beyond doubt. But of equal and perhaps greater importance at this time is the establishment of a system to ensure that existing knowledge and new findings will be organized in a manner suitable for review and decision as matters of public policy.

> In summary, to make policy effective through action, a comprehensive system is required for the assembly and reporting of relevant knowledge; and for placing before the President, the Congress, and the people, for public decision, the alternative courses of action that this knowledge suggests.

The purpose of the "detailed statement", which is referred to both in NEPA and MEPA, is, as Judge Wright noted in Calvert Cliffs' Coordinating Committee v. AEC, to aid agencies in their decision making and to alert other interested agencies and the public to the environmental consequences of planned action.[56] In addition, the role of the environmental impact statement is to be the "environmental source material" for the decision makers, and the statement must be sufficient to enable them to make an"informed choice."[57] In sum, a statement's adequacy, in the end, is measured by its functional usefulness in decision making. As noted legal scholar Frederick R. Anderson, Jr. concluded: "The statement must be of a nature and form that enables the decision maker to consider environmental factors in good faith. The decision in Calvert Cliffs'. . . spells out how consideration through a 'finely tuned' and 'systematic' balancing process must take place."[58]

The process for evaluating the environmental impact of the decision by the MEA to issue a certificate of need (resulting in decisions for size and type) and by the MEQB to issue a certificate of site compatibility or route designation fails at each of these stages to provide a "detailed statement" or to consider "all known possible environmental consequences" of their decision. First, the environmental report (ER) written by the MEA in the certificate of need process, the ER written by the MEQB and the EAW written by either the MPCA or MEQB in the siting and routing stage are not detailed. The regulations specifically state that the ERs "shall not be exhaustive or detailed as an EIS."[59] No EIS is completed at either the certificate of need stage or the siting/routing stage. The ERs are an environmental "assessment" and not an "impact statement". The environmental assessment provides input into the EIS, but, it is not an EIS. Consequently, to paraphrase Judge Kaufman in Greene County Planning Board v. FPC: the MEQB"has abdicated a significant part of its responsibility" to the MEA by substituting the ER for a full EIS for a major decision

(the size and type of power plants and lines), which has major environmental consequences. The MEQB, which apparently believes that an ER is comparable to an EIS, has misconstrued the Act.[60]

Second, the ERs do not consider all known possible environmental consequences. At the certificate of need stage, the MEA does not consider the location impacts when determining size and type. Moreover, the MEQB does not consider size and type when it evaluates the location impact of lines when they attempt to evaluate the impact of the plant. As noted by the MPCA:[61]

> An additional issue is whether transmission line impacts should also be considered in a power plant EIS. While it may be appropriate to consider power plant impacts and transmission line impacts independently when the power plant is in another state, it is not appropriate to consider transmission line impacts independently when both will be built in Minnesota. It is difficult to imagine how new power plants built in Minnesota will be built in the absence of a need for additional transmission lines. Indeed, the need for transmission lines could be a major factor in the siting of power plants. Power plant EIS documents should consider impacts of transmission lines which will be constructed as a result of the power plant.

MEPA requires that a systematic perspective be taken, "for such a perspective will make analysis as precise and relevant as possible."[62] As Davis Aggerholm of the U. S. Army Corp of Engineers' Institute for Water Resources has noted:[63]

> The overriding problem, in my opinion, is that impact assessment is not accomplished in a systems context. Those who do the assessments (even ecologists) do not think about or approach the problem with a truly holistic, ecological point of view; i.e., proposed actions are not viewed as perturbations of dynamic environmental and social systems, and impacts are not treated as systems changes. Rather, impacts are treated as discreet, separable, generally unrelated events. Likewise, to the extent they are recognized, whole systems are treated discreetly. This is just not how the real world works.

In sum, "all known possible environmental consequences" are not considered at the point at which the MEA or the MEQB makes a decision.

2. Adequate Staff

Do the MEA and the MEQB have adequate staff to review the environmental impacts of their decisions? In responding to a questionnaire, the MEA stated that it has only the equivalent of 1.5 people assigned to work on EISs and presumably

the ERs.[64] The MEQB has a staff of four people who review all (both energy and other EAWs, ERs, and EISs as necessary.[65] These staff people serve primarily in an Administrative function with member agencies providing staff to review ERs and EISs. Adequate staff is important in balancing protection of the environment with the need for power. In a 1970 report the Energy Policy Staff of the President's Office of Science and Technology concluded and recommended:[66]

> To assure that this long-range planning process is successful in protecting environmental values, environmental protection must be made an integral part of the utility planning process just as foundation testing and power system stability studies are at present. Those utilities who have not done so should develop professional competence and understanding in regional planning, architecture, biology, ecology, and other environmental sciences to assure that these considerations are an integral part of their planning. Comparable strengthening of staff resources will be required for the state, regional, and federal agencies reviewing these plans on behalf of the public.

The importance of adequate staff cannot be understated. In a six-year evaluation of the experiences of 70 federal agencies in handling the EIS process, the Council on Environmental Quality (CEQ) concluded:[67]

> Agencies with major EIS responsibilities should support high-level, well-staffed offices charged with implementing NEPA and the EIS process effectively. An important duty of the NEPA office is to educate agency personnel--including top management--on NEPA goals, procedures, and possibilities. Agency leaders need a clearer understanding of the potential of the EIS process as a management tool.

The CEQ study noted above has further concluded that "special NEPA offices within each agency have proved critical to the successful implementation of NEPA."[68] More recently, the Minnesota Supreme Court has noted in both No Power Line v. MEQC and PEER v. MEQC that an agency, in particular the MEQB, should not rely on information presented by parties in the preparation of an EIS, but must be a source of independent expertise.[69] The equivalent of 1.5 people in the MEA and four people in the MEQB is not sufficient to review and analyze all the environmental impacts associated with determining the size, type and location of power plants and lines. The problem is compounded by the fact that MEQB are administrative personnel. Moreover agency staff while actually reviewing the ERs and EISs are often placed in the position of evaluating documents prepared by their own agency. High level staffs need to be

placed within agencies to independently evaluate environmental consequences of their actions.

3. Other Agency Mandates

Do the certificate of need process and the power plant siting and/or line routing process provide for consideration of other agency mandates in MEA and MEQB decisions? MEPA (M.S. §116D.04, Subdivision 4) requires the preparing agency to "consult with and request the comments of every governmental office which has jurisdiction by law or special expertise with regard to any environmental effect involved," prior to the preparation of the final EIS. Agencies in Minnesota with special expertise include the Minnesota Pollution Control Agency (MPCA), the Department of Natural Resources (DNR), the Department of Health (DOH), and others. Generally, the purpose of the requirement is to require state agencies to cooperate with the preparing agency in the preparation of the EIS and to evaluate the adequacy and accuracy of the draft EIS document. Ostensibly, the comments and information provided to the preparing agency would address the criteria for inclusion in the EIS required by the statute and the rules promulgated thereunder. One additional point worth noting is that the comments and information provided to the preparing agency would be included in the final EIS and therefore be made available to the agency prior to its decision. Since no EIS is prepared at the certificate of need stage and the power plant siting and/or line routing stage, this requirement is not applicable.

However, agencies are required to provide some environmental information at the need and siting/routing stages. Minnesota Statutes §116H.13, Subd. 7 and Minnesota Statutes §116C.61, Subd. 3 require state agencies authorized to issue permits for siting, construction or operation of large energy facilities (power plants and lines) "to present their position regarding need in the certificate of need process and regarding sites or routes in the power plant siting and/or line routing process. The purpose of these "position" papers is to determine whether the proposed decision on need or site/route designation "will be in compliance with state agency standards, regulations, or policies." As noted earlier, no criteria is specified as to what is to be included in these position papers. There is no formal

opportunity for public review and comment on these position papers as there would be for an EIS. Further, since little information is provided on the environmental consequences of the proposed action at these two stages, agencies submitting position papers are operating in the dark. As the MPCA noted:[70]

> The PCA position papers submitted to the Energy Agency and the EQB in conjunction with the need and siting processes, respectively, usually are not adequate to allow making a fully informed determination of these effects. Because of the lack of specificity of the information available at these stages under current procedures, the PCA can provide little more than an informed estimate based on the expressed intention of the utility and the existing state of the art of the technology involved that, given certain circumstances, it would be possible for the applicant to design, construct and operate the plant to comply with applicable regulations. PCA position papers can only be regarded as best estimates on our part and are in no way definitive enough to insure that environmental considerations are given at least equal weight in the need and siting decision processes. Until the EIS has been completed, it is nearly impossible to draw sound conclusions concerning compliance or noncompliance with Agency standards.

4. Timely Consideration

Does the size, type, and location of power plants and lines provide for timely consideration of the environmental impacts of the proposed action? There is no issue in the environmental impact statement process that is as critical to the intended success as the question of when the impact statement is prepared, reviewed, and circulated for comments. If the EIS is prepared too early, not enough will be known about the specific impacts of the project to make an informed decision. Alternatively, if disclosure of the probable impacts awaits sufficient information to make detailed evaluations of both the proposed action and its "prudent and feasible" alternatives the recommendation for the proposed action may appear to be, or in fact may be, a fait accompli. The policy of when to consider environmental questions was expressed well in the Ford Foundation Study Exploring Energy Choices: "One crucial guide for energy policy stands out, however. Energy policy must be acutely sensitive to energy activities that may irreparably damage the environment for decades or even generations to come. Attention to the environment also requires bringing environmental considerations into the energy planning process long before new technologies or new energy installations are in place.

Technologies should be built with environmental quality as a constraint, rather than as an afterthought."[71]

In order that "technologies be built with environmental quality as a constraint, rather than an afterthought," the EIS must be prepared early in the process. The CEQ guidelines promulgated under NEPA require that the EIS be prepared early in the process. The 1973 annual report of the CEQ elaborated on the importance of preparing the EIS early:[72]

> The proposed new guidelines emphasize that environmental considerations should be taken into account from the beginning of the decision making process. Initial environmental studies, for example, should be undertaken concurrently with initial technical and economic studies. Too often agencies have written statements to justify decisions long since made. If they had begun their environmental assessments at the conception of their projects, the environmental information could have been integrated into, rather than tacked onto, the decision making process, and in many cases delays could have been avoided. Under the proposed guidelines, draft impact statements are to be prepared and circulated at the earliest possible stage in the decision making process.

The issue of timing the EIS becomes particularly vexing when it comes to the considerations of project alternatives. In general, "agencies have tended to err on the side of preparing impact statements too late, rather than too early."[73] For example, one official has complained:[74]

> We have repeatedly seen that we cannot rely upon sponsors to look at the most reasonable alternatives to the proposed actions. The alternatives usually presented are those which are patently worse than the recommended course of action. Alternatives which commend themselves to us and to a number of reviewing agencies as likely to be better than the recommended action are not mentioned. Queries to sponsor agencies beget obscurities, ambiguities, or diversionary descriptions of the delays and additional expenses which would be incurred if a new alternative were adopted or even studied. In summary, we are disturbed that, at the time the draft and final statements are reviewed, the sponsor agency is already committed to the recommended alternative to such an extent that reviewing and approval authorities are not given the opportunity to make a truly free and impartial decision. In effect, we are often given a choice of one; no real decision is possible. Currently, the requirement for filing a final environmental statement with CEQ is more akin to getting a construction permit than it is part of the decision process as is contemplated in the Act. Positive action needs to be taken to insure environmental statements are prepared so early that consideration of all reasonable alternatives can truly become part of the decision making process. (emphasis not added)

Recently, the Minnesota Supreme Court in No Power Line v. MEQC recommended that the MEQB prepare the EIS earlier in the process than is now the case.[75] It is also worth noting that "integrating the (EIS) review early in the planning of actions means less delay at later stages."[76]

How early in the process should the EIS be prepared? The new proposed CEQ EIS regulations suggest that the EIS should be prepared as close as possible to the time an agency makes a proposal. "The statement shall be prepared early enough so that it can practically serve as an important contribution to the decision making process and shall not be used to rationalize or justify decisions already made."[77] The guidelines recommend the following stages for agency initiated projects, applications to the agencies (such as the certificate of need application and the power plant siting and/or line routing application), and adjudication:[78]

> (a) For projects directly undertaken by Federal agencies such statements shall be prepared at the feasibility analysis (go-no go) stage rather than the engineering design stage (and may be supplemented at the latter stage if necessary).
>
> (b) For applications to the agency statements shall be prepared at the latest immediately after the application is received, but federal agencies are encouraged (preferably jointly with applicable state or local agencies) to prepare them earlier.
>
> (c) For adjudication, the final environmental impact statement shall precede the staff recommendation and public hearing.

The MPCA, which prepares the EIS on power plants, has recommended that the EIS be prepared before the certificate of need stage:[79]

> To better serve the purpose for which it is intended, and to conform with the requirements of the Environmental Policy Act concerning its availability before final decisions are made, the EIS should be completed before and be available for use at all three stages of the regulatory process; i.e., need determination, site certification, and construction and operation permit issuance. Given the availability of a reliable inventory of suitable sites and the simultaneous submission of applications, as discussed in our responses to questions 3 and 5 above, it would be possible to prepare the EIS before the first stage of the regulatory process rather than after the second stage and to produce a better and more informative product, without adding substantially to the lead time required for the regulatory process. This procedural change also would require that the utilities do their site environmental background and preliminary engineering studies at a much earlier stage and on several potential sites rather than on a preferred one or two sites.

> Consistent with MEPA (Minnesota Statutes 116D) no state agency should make a final decision (i.e., issue a permit or certificate) until an EIS has been completed. The current process in which the EIS comes after the second step in the regulatory process has problems related to the segmented nature of the process. Three alternatives to the existing process should be considered:
>
> (1) the EIS could be prepared first which would require the utility to initially present specific information on the size, type, location and etc., with the certificates of need and siting as well as the permits being issued only after the EIS is prepared.
>
> (2) the process could proceed similar to the current process except that the Energy Agency and EQB would not issue final certificates until after the EIS is prepared, and the EIS would consider energy and siting alternatives, or
>
> (3) the EIS and siting processes could be combined with the Energy Agency issuing a preliminary certificate of need prior to the EIS and a final certificate after the EIS. It is important to have a process that works efficiently, is consistent with the Environmental Policy Act and responsive to the public. Alternative No. 1 above would accomplish this.

5. Public Review

Are the environmental documents provided for under the MEQB rules subject to reasonable public review? From its inception the EIS has not been viewed as an end in itself, "but as a procedural safeguard to assure public disclosure of the likely environmental consequences of the proposed. . . action and timely participation of the public in consideration of these consequences."[80] The EIS as a procedural safeguard, then, has two components. First, it is a disclosure document. The EIS review process affords, as a recent NRC study noted, "a significant opportunity for both the. . .(agency) and the public to assess the implications of the proposed plans on the siting of. . . (energy) facilities."[81] Further, the EIS must not only be disclosed to the public, but sufficiently detailed to allow the courts (at least under NEPA) to determine if there has been full compliance with the law:[82]

> . . . a federal agency. . .may not evade [its NEPA] obligation by keeping its thought process under wraps. Discretion to decide does not include the right to act perfunctorily or arbitrarily. That is the antithesis of discretion. The agency must not only observe the prescribed procedural requirements and actually take account of the factors specified, but it must also make a sufficiently detailed disclosure so that in the event of a later

> challenge to the agency's procedure, the courts will not be left to guess whether the requirements of . . . NEPA have been obeyed.
>
> . . . to enable a court to ascertain whether there has been a genuine, not a perfunctory compliance with NEPA, the LEAA will be required to explicate fully its course of inquiry, its analysis and its reasoning.

In addition, the EIS statement "must at 'a minimum' contain information which will alert the public 'to all known possible environmental consequences,' including the contentions and opinions as to the possible environmental consequences brought to the agency's attention by 'experts, or by concerned public or private organizations, or even ordinary lay citizens,' at least to the extent that these views are 'responsible.'"[83]

The second procedural safeguard of the EIS process is that it must involve the public. "The burden in preparing environmental impact statements is not simply to inform the public (implying a one-way flow of information from the. . . government to the public), but rather to involve the public in a two-way communications process."[84] The new proposed CEQ EIS procedures require public commenting after preparing a draft EIS and shall:[85]

> (1) Obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved or which is authorized to develop and enforce environmental standards. . . An agency which has acted as a cooperating agency may reply that it has no comment.
>
> (2) Request the comments of appropriate State and local agencies which are authorized to develop and enforce environmental standards, or any agency which has requested that it receive statements on actions of the kind proposed.
>
> (3) Request comments from the public, affirmatively soliciting comments from those persons or organizations who may be interested or affected.

It is worth noting that the agency has an obligation to affirmatively solicit comments, so that a reasonable dialogue can take place.

The MEQB environmental review procedures are inadequate in assuring that a dialogue between the public and the agency takes place. First, while the public

is notified of the existence of the ER in the EQC Monitor and through a distribution list, and comments on it are included in the hearing record, there is no affirmative duty on the part of the agency to respond to the comments. Second, the public is not notified of the "position" papers prepared pursuant to the enabling legislation, nor is a commenting or review process provided for those position papers. Finally, no formal review procedure has been established for the draft EIS on large electric power plants prepared pursuant to MEQB regulations.[85A]

Another problem with the commenting process concerns the deadlines set by the regulations for ERs, EISs, and "position" papers. The regulations provide for (1) the submission of the certificate of need ER 20 days prior to the start of the hearing; (2) the submission of the plant ER 30 days prior to the conclusion of the public hearings held on the site application; (3) the submission of the line ER 20 days prior to the conclusion of the public hearing held on the route application; (4) no procedure for the submission of the draft EIS on the plant; and (5) the submission of the draft EIS sometime during the public hearing on the route application. The normal EIS procedure (i.e., not the special procedure for plants and line) provides for 30 days to review the draft EIS after receiving the document.[86] Twenty to 30 days is too short a time to review and comment on an EIS or even on a document as short as an ER. The general public simply does not have the time or resources to comment on a document involving complex issues in such a short time.

The short commenting period of 30 to 45 days allows for very little, if any, informed analysis and debate. As noted in the third annual CEQ report:[87]

> Agencies and private groups whose interests and expertise put them frequently in a commenting role on draft 102 statements have complained at times of the difficulty of preparing helpful comments in only 30 to 45 days. For example, the Department of the Interior is asked to comment on hundreds of proposed actions affecting land use and fish and wildlife values. EPA, with its expertise in pollution control, faces a similar situation. EPA's workload is increased by section 309 of the Clean Air Act.

> One answer to this problem, obviously is for the commenting entities to add the staff and other resources to handle the commenting task. The opportunity to make Federal decision making better informed and more carefully planned warrants the necessary manpower. However, even with adequate resources, it is often impossible to prepare comments in 30 days that will do justice to a draft statement that may have taken years to prepare.

6. Alternatives

Do the environmental review procedures established under the enabling legislation and MEQB rules provide for adequate consideration of alternatives to the proposed action? The decision of how, when and where to produce electricity is an issue of major importance, because each type of plant, the varying sizes and differing locations pose different environmental consequences. Each choice of size, type, and location offers the possibility of employing quite distinct technologies and each technology has alternate refinements.

At present, the choice of size, type and generally the choice of location is left to the individual utility subject to review by government agencies. Presumably, the utility bases its selection on the costs of the various alternatives available. However, many of these costs such as mineral depletion allowances, oil import policies, freight charges, sale of government-owned reserves and stockpiles, and prices charged by government enrichment facilities, as well as a multitude of other factors that go into the design of a particular facility have little correlation to ecologically optimum resource allocation. In addition, environmental damage is a social cost which is relevant in the management calculus of utilities only to the extent that opposition may complicate the building of a plant. Thus, there is little reason to assume that the utility's choice of size, type, timing, and location is the most socially desirable choice. Consequently, the question becomes: does the licensing process provide effective review of the utility's choice?

The review of the environmental consequences of the utility's choice in the licensing process is provided through the EIS procedures. The legislative history of NEPA clearly indicates that the Act was intended to facilitate policy choices. Yet, it is clear that there can be no choice if a decision lacks alternatives to the proposed action. The importance of alternatives is emphasized throughout the

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The review of the environmental consequences of the utility's choice in the licensing process is provided through the EIS procedures. The legislative history of NEPA clearly indicates that the Act was intended to facilitate policy choices. Yet, it is clear that there can be no choice if a decision lacks alternatives to the proposed action. The importance of alternatives is emphasized throughout the

Act, which requires the consideration of "appropriate alternatives" when there are "unresolved conflicts concerning alternative uses of available resources."[88] These sections tell agencies to present reviewers with options other than the favored one. The CEQ Guidelines call for the EIS to examine:[89]

> . . . alternatives to the proposed action, including, where relevant, those not within the existing authority of the responsible agency. . . A rigorous exploration and objective evaluation of the environmental impact of all reasonable alternative actions, particularly those that might enhance environmental quality or avoid some or all of the adverse environmental effects, is essential. Sufficient analysis of such alternatives and their environmental benefits, costs and risks should accompany the proposed action through the agency review process in order not to foreclose prematurely options which might enhance environmental quality or have less detrimental effects. Examples of such alternatives include: the alternative of taking no action or of postponing action pending further study; alternatives requiring actions of a significantly different nature which would provide similar benefits with different environmental impacts (e.g., non-structural alternatives to flood control programs, or mass transit alternatives to highway construction); alternatives related to different designs or details of the proposed action which would present different environmental impacts (e.g. cooling ponds vs. cooling towers for a power plant or alternatives that will significantly reconserve energy); alternative measures to provide for compensation of fish and wildlife losses, including the acquisition of land, waters and interests therein. In each case, the analysis should be sufficiently detailed to reveal the agency's comparative evaluation of the environmental benefits, costs and risks of the proposed action and each reasonable alternative. Where an existing impact statement already contains such an analysis, its treatment of alternatives may be incorporated provided that such treatment is current and relevant to the precise purpose of the proposed action.

The crucial point in the guidelines is that the preparing agency should rigorously explore and objectively evaluate all reasonable alternatives. "A principal theme of NEPA regulations is that decisions will be improved if agencies concentrate on important issues. . . and analysis of alternatives, 'the heart of the environmental impact statement,' should be emphasized."[90]

In addition, the preparing agency should devote equal treatment to alternatives to the proposed action. "In other words, it is not sufficient to merely describe in

detail the various alternatives to the recommended course of action. Without full treatment of the effects of each of the alternatives, it is not possible for the responsible agency properly to evaluate the relative merits of the alternatives. The thrust of Natural Resources Defense Council v. Morton and similar cases related to the appropriate treatment of alternatives is that "the same burden falls on the sponsoring agency to discuss fully the effects of alternatives to an action as is incumbant on the agency to discuss the proposed action itself. . . the same standard of analysis should apply. In these cases, a similar or comparative level of design and analysis should be conducted so that parallel comparisons can be made between the proposal and its impacts as against the alternatives and their impacts."[91]

The licensing process in Minnesota considers alternatives at the certificate of need stage and the power plant/line siting/routing stage. In the certificate of need process, the director considers "only those alternatives proposed before the close of the public hearing and for which there exists substantial evidence on the record with respect" to the criteria for determining need under the regulations.[92] The effect of this regulation is to place the burden on those other than the utility or agency who wish a different size or type of plant. The application by the utility for the certificate of need requires the utility to provide "a discussion of the availability of alternatives to the facility", i.e., a discussion of alternative ways of meeting demand, for both plants and lines.[93] There is no requirement to consider the effects of these alternatives and the recommended action in the application.

The environmental report (ER) prepared by the MEA on the certificate of need application requires "a brief analysis" of alternatives to the recommended action including a "discussion of the . . . environmental feasibility of each alternative including the alternative of a different sized facility."[94] A "brief analysis" of type (without specifying how to determine the reasonableness of alternatives) and a "discussion" of "environmental feasibility" does not provide the equal treatment

of alternatives and their effects with the recommended action. As a result, the ER is of limited usefulness since it fails to provide sufficient information to facilitate policy choices, which is the ultimate purpose of MEPA.

The Power Plant Siting Act (PPSA) requires the MEQB to consider at least two different sites for plants and at least two different routes for lines.[95] The site ER provided under the MEQB MEPA regulations "shall not consider the need for the LEGGP (plant) or information not related to site differentiating impacts." The ER only considers "an evaluation of each site that is considered for designation at the siting public hearings."[96] The ER on corridors for a line considers an evaluation of all possible routes including those designated by the MEQB.[97] These ERs unnecessarily restrict the consideration of other available alternatives to the site, and prohibit complete consideration of the effect of total environmental impact resulting from the overall decision (size, type, timing, and location). Consequently, the ER does not provide for equal treatment of alternatives and their effects in order to facilitate policy choices.

In addition to the inadequacies of the ERs at the need and at siting/routing stages noted above, the EISs provided for under the MEQB rules also strictly limit the consideration of alternatives. The EIS on the plant is restricted from considering alternatives on "the need for the facility, and any other issues previously determined by the Minnesota Energy Agency or the Council (MEQB).[98] With regard to routes, "the EIS shall not consider the need for the facility, routes outside the designated corridor or any routes not designated for study" by the MEQB.[99] As a result, at the only point when an EIS is finally undertaken, the consideration of alternatives is greatly restricted.

The MEQB under the PPSA is required to prepare an inventory of power plant site study areas (see Chapter Two, section 2.3A for more details). The inventory "is intended to be a strategic planning study to find general areas where it may be possible to locate power plants."[100] The inventory considers a wide range of generating plant sizes and types study areas, from 50 to 2400 MW (megawatts).

Included in the inventory is information about (1) avoidance areas and exclusion areas; (2) water supply and water quality; (3) air quality; (4) agricultural land; (5) economics; (6) coal transportation; and (7) associated transmission needs. The inventory of study areas addresses key aspects of the effects of size, type, and location decisions. Nowhere in the need or siting/routing process are the regional aspects of size, type, and location decisions considered. Consequently, the siting decision excludes the consideration of alternative study area locations, identified by the inventory program, because the application by the utility for a plant site is usually restricted to two sites within one study area without evaluating the environmental consequences of different sizes and types between study areas.

In sum, the existing environmental review process defeats the purpose and intent of the Minnesota Environmental Policy Act (MEPA). This Act was designed to facilitate policy choices by considering both the proposed action and its alternatives by giving equal treatment to both the proposed action and alternatives. In particular, the existing process fails to (1) consider all possible environmental effects at each stage of the process where "decision can affect the environment;" (2) provide adequate staff to independently review the environmental impact of the proposed action and its alternatives; (3) permit adequate consideration of other agency mandates in the decision making process for determining the size, type, and location of power plants and lines; (4) provide timely consideration of the environmental impact of both the proposed action and its alternatives; (5) provide reasonable public review of environmental information documents necessary to meet the purposes of MEPA; and (6) provide adequate consideration of alternatives by specifically excluding alternatives and by failing to provide equal treatment of the few remaining alternatives considered with the proposed action.

C. Using MEPA to Improve Governmental Decision Making

As noted earlier, MEPA was designed to alter agency decision making in two ways. First, MEPA is an environmental disclosure document to provide information to

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In addition to the inadequacies of the ERs at the need and at siting/routing stages noted above, the EISs provided for under the MEQB rules also strictly limit the consideration of alternatives. The EIS on the plant is restricted from considering alternatives on "the need for the facility, and any other issues previously determined by the Minnesota Energy Agency or the Council (MEQB).[98] With regard to routes, "the EIS shall not consider the need for the facility, routes outside the designated corridor or any routes not designated for study" by the MEQB.[99] As a result, at the only point when an EIS is finally undertaken, the consideration of alternatives is greatly restricted.

The MEQB under the PPSA is required to prepare an inventory of power plant site study areas (see Chapter Two, section 2.3A for more details). The inventory "is intended to be a strategic planning study to find general areas where it may be possible to locate power plants."[100] The inventory considers a wide range of generating plant sizes and types study areas, from 50 to 2400 MW (megawatts).

Included in the inventory is information about (1) avoidance areas and exclusion areas; (2) water supply and water quality; (3) air quality; (4) agricultural land; (5) economics; (6) coal transportation; and (7) associated transmission needs. The inventory of study areas addresses key aspects of the effects of size, type, and location decisions. Nowhere in the need or siting/routing process are the regional aspects of size, type, and location decisions considered. Consequently, the siting decision excludes the consideration of alternative study area locations, identified by the inventory program, because the application by the utility for a plant site is usually restricted to two sites within one study area without evaluating the environmental consequences of different sizes and types between study areas.

In sum, the existing environmental review process defeats the purpose and intent of the Minnesota Environmental Policy Act (MEPA). This Act was designed to facilitate policy choices by considering both the proposed action and its alternatives by giving equal treatment to both the proposed action and alternatives. In particular, the existing process fails to (1) consider all possible environmental effects at each stage of the process where "decision can affect the environment;" (2) provide adequate staff to independently review the environmental impact of the proposed action and its alternatives; (3) permit adequate consideration of other agency mandates in the decision making process for determining the size, type, and location of power plants and lines; (4) provide timely consideration of the environmental impact of both the proposed action and its alternatives; (5) provide reasonable public review of environmental information documents necessary to meet the purposes of MEPA; and (6) provide adequate consideration of alternatives by specifically excluding alternatives and by failing to provide equal treatment of the few remaining alternatives considered with the proposed action.

C. Using MEPA to Improve Governmental Decision Making

As noted earlier, MEPA was designed to alter agency decision making in two ways. First, MEPA is an environmental disclosure document to provide information to

decision makers to help them make informed decisions about how their policies affect the quality of the air, water, and land. Second, MEPA is an action planning procedure, via the EIS process, to help decision makers make a rational choice by considering a set of possible alternatives early in the process before irretrievable resources are utilized, and with the help of the public. The foregoing analysis shows that the special environmental review procedures for decisions involving electric power plants and lines established by the MEQB regulations fail to meet the intent or spirit of MEPA.

There are three key problems associated with the environmental review process established for power plants and lines under the MEQB rules. These include the EIS timing and scope, and the secrecy associated with the planning process. The problems that have arisen with respect to EIS timing and scope can be traced to a common conceptual difficulty on the part of agency personnel. What is involved is not merely "bad faith" or administrative lethargy on the part of the agencies, but a deeply ingrained bureaucratic orientation to focus on goals, rather than on process. "Process" refers to the methodology or procedures of decision making. The Senate Committee on Interior and Insular Affairs in its hearings on NEPA has noted this bureaucratic phenomenon:[101]

> [I]t is clear that there is very real reason for concern for those areas in which no policies have been established or in which the conflicting operational policies of different agencies are frustrating and complicating the achievement of environmental quality objectives which are in the interest of all. Many older operating agencies of the Federal Government, for example, do not at present have a mandate within the body of their enabling laws to allow them to give adequate attention to environmental values. In other agencies, especially when the expenditure of funds is involved, an official's lattitude to deviate from narrow policies or the "most economical alternative" to achieve an environmental goal may be strictly circumscribed by congressional authorizations or the limitations of agency procedures. There is also reason for serious concern over the activities of those agencies which do not feel they have sufficient authority to undertake needed research and action to enhance, preserve, and maintain the qualitative side of the environment in connection with development activities.

Concern about this agency orientation in decision making has been recently voiced by the courts: "The harm with which courts must be concerned in NEPA cases is

not, strictly speaking, harm to the environment, but rather the failure of decision makers to take environmental facts into account in the way that NEPA mandates."[102] Lynton Caldwell defined the problem even more broadly:[103]

> The major problem of public environmental administration has. . . been a matter not so much of appropriate tools and techniques as of guiding concepts. When the issues of conservation could be resolved on the technical level by regulating the cutting of timber, setting bag limits on wild game, and reducing soil erosion, the traditional conservation doctrines made sense and pointed the way to public action. Value differences in issues like these tended to diminish as the consequences of unlimited exploitation became clear. But in such issues as the proposals to construct a power-generating plant on the fact of Storm King Mountain on the Hudson River. . . [t]he conservation concept could provide guidance. . . only if it were infused with a substantive content that afforded a basis for the setting of priorities. . . that gave objective content to the meaning of wisdom.

Into this goal-oriented environment, the legislature introduced MEPA with its mandate to make decisions with environmental concerns as an integral part of the decision making process, rather than as an afterthought. The problems of timing and scope are at least in part due to this bureaucratic outlook toward goals, rather than process:[104]

> To be concerned during pre-implementation planning with the time when an EIS must be prepared is to presuppose an ability and willingness to conceptualize an action as more than its end product, and a perception of decision making as a series of steps and activities. Similarly, in order to understand the desirability of a program EIS it is necessary to recognize that several projects may be interrelated as part of a larger plan, although each project is itself an end product which requires specific actions of implementation. The problems are further complicated by the abstraction involved; an understanding of agency mission that emphasizes the planning process and the valuation of project "maturity" and "interdependence" is really quite foreign to the concrete needs of dam or bridge construction. The claims of intangibility raised by agencies in answer to timing and scope challenges no doubt seem justified because of this abstract quality; yet analysis presupposes abstraction, and analysis is what NEPA demands.

Two aspects of this "abstraction" difficulty have been identified. The first involves methodology:[105]

> Prior to the passage of NEPA, planning and decision making of the federal government and private industry was all too frequently "the exclusive province of the engineer and cost analyst." These people often ignored environmental factors because of the difficulty in evaluating

> them quantitatively in the same equation with the economic and technical factors motivating proposed action.

The second aspect of the "abstraction" difficulty involves the temporal frame of reference in which NEPA and MEPA operate: "NEPA is an organism that must survive in a hostile environment. It is a measure that requires far-sighted planning, but must live in a habitat that is focused on the short term."[106]

The third key problem with the environmental review process involves secrecy. In the previous chapter it was noted that secrecy is an inherent part of both utility and agency behaviors, that the administrative process is not presently designed to foster openness, and that the public is informed of the proposed decision at the eleventh hour, a time too late to comprehend the magnitude of the task, prepare a case, and organize a rebuttle, when needed (see Chapter Three, sections 3.1E, 3.2A, and 3.3A). It is essential that institutions be developed to combat the practices of secrecy. "We need a tradition of public dialogue concerning the implications of developing technologies. Those who are aware of these implications should be obligated to come forward and discuss them at an early stage, before so much money and resources have been invested in projects as to render them effectively irreversible."[107]

The EIS action planning mechanism created by MEPA is the procedure by which environmental concerns are made a part of agency decision making. The effective utilization of MEPA EIS procedures by the MEQB can make significant strides toward achieving a more efficient facility siting determination. First, by considering size, type, and location with plants and lines together, the MEQB can balance the environmental consequences of the whole decision with the need for power decision. Second, by relying on the substantive policy statements in MEPA, the MEQB can encourage agencies which administer planning programs to achieve more successful coordination with related programs. This will foster not only the MEQB's goal of more efficient facility siting but would achieve the goal of more coherent and cohesive environmental planning. Third, by providing an opportunity

for other agencies and the public to comment on environmentally related plans through the EIS procedure, the MEQB can both better understand the implications of these plans on energy facility siting decisions and help ensure that the plans do not arbitrarily exclude viable and reasonable alternatives. Finally, by providing strong incentives to other state agencies to coordinate their planning activities with the MEQB, the MEQB could both acknowledge the significant role that other state planning agencies must play in siting energy facilities and reduce administrative burdens on its own staff.

The Nuclear Regulatory Commission (NRC) Staff Working Paper on potential alternatives to achieve increased efficiency in energy siting decisions, while noting that there is no single cause for delay in siting energy facilities, notes:[108]

> . . . NEPA related environmental laws are testing the democratic process resulting in overlapping and duplication of laws and procedures. This destabilizing effect on the regulatory process, is helpful to the extent that past experience allows improved focus on the diversity of issues. It now appears that we have reached the stage where environmental review can be reorganized into the effective management tool it was meant to be. (emphasis added)

The Findings of this study (and others noted in Chapter Three, section 3.3C) illustrate that the EIS procedure is not the cause of "duplication of laws and procedures." On the contrary, the EIS procedure can serve to reduce unnecessary overlap of environmental review as well as help agencies make intelligent decisions. In order to do so, it must be viewed quite differently than it has in the past. MEPA must no longer be employed as a reactive device to compel agencies to undertake certain environmental considerations in its decision making processes. The use of MEPA as a reactive device has served to obscure its potential role as a positive mechanism to reduce duplicative administrative processes, and thus increase the efficiency of environmental review. The importance of reducing duplicative efforts in making environmental review has been repeatedly endorsed by the National Governors' Association.[109]

1. When the EIS?

When, then, should an EIS be undertaken and completed in order to balance the need for power and the associated size, type, location and timing decisions with

the protection of the public health and environment? This issue has been subject to extensive debate for the past five or six years in Minnesota.[110] The scope of the MEPA mandate to agencies can be spelled out relying on language from the Calvert Cliffs' decision: MEPA empowers and compels agencies to take actual account of environmental factors in decision making; they must trade off environmental factors with economic, social and technical factors in a "finely tuned and systematic balancing analysis."[111] "Without a viable approach to placing priorities, preferences and weights on specific factors, the balancing process proceeds amidst great uncertainty and invites agencies to fall back on the 'hard' data gathered to support established agency missions."[112] Recognizing that, as a project moves through successive stages of development, certain location and design alternatives or options are foreclosed, attention must be focused on the scale of the proposed action and on the stage of the project development, with the full anticipation that as the focus of project specificity is narrowed, so is the feasible range of alternatives. The CEQ has recognized this in its new proposed EIS regulations. The CEQ uses the term scoping to establish a process for determining the scope of the issues to be addressed and for identifying significant issues. The "purpose of scoping is to ensure that environmental review is integrated with other planning at an early stage--not tacked on at the end of the planning process, with the EIS written to justify a decision that has already been made."[113] The PPSA inventory program is a step in this direction (see Appendix VI).

State government has traditionally been involved in the conservation of resources rather than in the protection of environmental quality. In the last 15 years, state governments have greatly increased their efforts to solve air, water, and land pollution problems. Increasingly, states are adopting land use programs. Moreover, states are actively involved in 208 water quality management (section 208 of the Clean Water Act). All of these programs have the objective of guiding or coordinating development and land use activities for the improvement and maintenance of environmental quality. State involvement has included both the broad policy approach and project approval approach to "help predetermine the location, type,

intensity and scale of development, and perhaps whether there will be development. Comprehensive and enforceable policies and plans are the prime examples of this approach."[114]

Unfortunately, the Minnesota environmental review process for power plant and line development fails to consider the broad policy approach for environmental review. The timing and scope problems discussed above result in a misrepresentation of environmental effects as a consequence of "segmentation", i.e., a division of analysis into such minor components that a project's overall effects become imperceptible. The Eighth Circuit Court of Appeals has discussed the problem of analytical segmentation in the area of highway planning (it is equally applicable to power plant siting):[115]

> [T]o allow environmental impact statements to be filed as construction proceeds in a piecemeal fashion, thus limiting the impact and scope of an environmental analysis to relatively small segments under construction, would result in ignoring the environmental impact of the entire system, in sic--not? determining its ultimate effect on the environment, and in weakening the consideration of alternatives. An added factor is injected into the problem in that the construction of a small segment after a limited impact statement could set the course or pattern for a considerable portion of the system so that little flexibility would be left in the later stages of the system's implementation, and, therefore, no consideration of the entire plan would ever be made.

Segmentation in time occurs when costs of preliminary planning and research do not appear in the cost-benefit calculation considered in a specific program. Cost-benefit has been defined as "a method of discovering the value of a good for which no market price exists."[116] In the environmental context, it has been used to quantify "the cost of environmental amenities."[117] Often treated as a cost already incurred in preliminary planning and therefore no longer subject to analysis, such preliminary planning represents an agency investment in the proposed project which may drive forward a proposal without being developed.

Segmentation can also result in the practical elimination of disclosure and comment as well as in mere misrepresentation. NEPA and MEPA have been called "at the very least. . . an environmental full disclosure document."[118] However, "if

preliminary agency decisions and individual activities are treated as too minor to merit EIS consideration or as justifications for an initially unidentified large-scale action on a post facto basis, such decisions and activities may not be considered at all. Injury still results even if a later EIS provides impact analysis since possible alternatives have been eliminated by the path already taken."[119] Since MEPA has as one of its objectives to fully disclose and disseminate information and to allow comment to aid agencies in considering environmental parameters "to the fullest extent possible", all factors which inhibit full disclosure should be minimized.

If the recommendations of the previous subsection (Chapter Four, section 4.1A) were implemented, no EIS would be necessary at the certificate of need stage. However, EISs would be needed at subsequent stages to fully implement theintent and spirit of MEPA.

RECOMMENDATION: THE ENVIRONMENTAL REVIEW PROCESS SHOULD BE REVISED TO REFLECT BOTH THE INTENT AND SPIRIT OF THE MINNESOTA ENVIRONMENTAL POLICY ACT (MEPA). THIS SHOULD BE ACCOMPLISHED BY UNDERTAKING THE FOLLOWING (1) AN ENVIRONMENTAL IMPACT STATEMENT (EIS) SHOULD BE MANDATORY FOR ANY POWER PLANT OR TRANSMISSION LINE WHICH IS SUBJECT TO THE AUTHORITY OF THE POWER PLANT SITING ACT (PPSA); (2) POWER PLANTS AND TRANSMISSION LINES SHOULD BE CONSIDERED TOGETHER WHENEVER POSSIBLE; (3) THE ENVIRONMENTAL REPORTS REQUIRED TO BE PREPARED AT THE CERTIFICATE OF NEED STAGE AND THE POWER PLANT SITING AND ROUTE DESIGNATION STAGE SHOULD BE ABOLISHED; (4) THE ENVIRONMENTAL ASSESSMENT WORKSHEET REQUIRED TO BE PREPARED AT THE POWER PLANT SITING AND ROUTE DESIGNATION STAGE SHOULD ALSO BE ABOLISHED; (5) THE PUBLIC SHOULD BE GIVEN 60 DAYS TO REVIEW AND COMMENT ON THE DRAFT EIS; (6) ALL ENVIRONMENTAL IMPACT STATEMENTS (WHETHER PLANTS AND LINES OR JUST LINES) SHOULD BE PREPARED BY THE MPCA; AND (7) THE MINNESOTA ENVIRONMENTAL QUALITY BOARD (MEQB) SHOULD RECEIVE ADDITIONAL FUNDS TO HIRE STAFF NECESSARY TO MAKE AN INDEPENDENT EVALUATION OF ANY EIS PREPARED PURSUANT TO MEPA.

Adverse consequences of analytical segmentation in the planning process are most important. In the planning process one should choose between technologies, wherein the project stage one should choose between locations for a specific

technology. Segmentation causes great difficulty in the planning process. In that situation, treatment of projects separately without acknowledging their relationship as parts of a larger whole, can result in the bootstrapping of the next project without ever considering the net impact of the overall development. RECOMMENDATION: THE EIS PROCESS FOR POWER PLANTS AND TRANSMISSION LINES SHOULD BE REVISED. FIRST, A "PLANNING EIS" SHOULD BE PREPARED AND FINALIZED PRIOR TO THE MEQB DECISION ON SIZE, TYPE, AND LOCATION. THE "PLANNING EIS" SHOULD REVIEW ALTERNATIVE SIZES AND TYPES AND STUDY AREAS IDENTIFIED IN THE MEQB INVENTORY OF STUDY AREAS PROGRAM. THE "PLANNING EIS" WOULD EVALUATE OTHER PLANNING ACTIVITIES INCLUDING AIR QUALITY, WATER QUALITY AND WATER RESOURCES, LAND USE, ECONOMIC AND TRANSPORTATION PLANNING ACTIVITIES FOR THE PURPOSE OF EVALUATING ALTERNATIVE SIZES AND TYPES AND THE DEMANDS THAT THEY PLACE IN CHOOSING A STUDY AREA. ALL AGENCIES, WHICH ARE INVOLVED IN AIR, WATER, LAND, ECONOMIC, AND TRANSPORTATION PLANNING SHALL PARTICIPATE IN THE PREPARATION OF THE DRAFT EIS AND SUBMIT WRITTEN COMMENT ON THE DRAFT EIS. UPON COMPLETION OF THE FINAL EIS, THE MEQB WOULD CHOOSE A TYPE(S) AND SIZE (S) AND A STUDY AREA FOR THE PLANT(S). SECOND, UPON COMPLETION OF THE "PLANNING EIS" AND THE SIZE, TYPE, AND STUDY AREA DECISION, THE MEQB WOULD IDENTIFY TWO OR MORE SITES WITHIN THE STUDY AREA FOR THE LOCATION OF THE PLANT(S). ONCE THESE SITES HAVE BEEN IDENTIFIED, A "PROJECT EIS" WOULD BE UNDERTAKEN TO ANALYZE IN DETAIL THE ENVIRONMENTAL CONSEQUENCES OF THE MEQB SIZE, TYPE, AND LOCATIONS DECISION ON THE LOCAL ENVIRONMENT. THE " PROJECT EIS" WOULD BE COMPLETED AND FINALIZED BY THE MEQB PRIOR TO THE ISSUANCE OF ANY PERMIT OR CONSTRUCTION AUTHORIZATION.

The President's Office of Science and Technology found that many of the siting problems are inherent in the technology and will occur at any site or route. They recommended that "while many piecemeal reviews and governmental approvals are now required, the development of comprehensive, coordinated institutional arrangements for long-range planning and preconstruction review by a public agency to assure necessary environmental protection are essential for alleviating siting and routing

problems."[120] More recently, the Energy Policy Task Force of the MEQC recommended "a thorough compilation of the environmental consequences of energy use in Minnesota should be undertaken."[121]

In the survey sent out in conjunction with writing this report, the question was asked whether an EIS should be done on total end use energy requirements for Minnesota. While the results of the survey are in no way statistically valid, the results do indicate that no unanimity of agreement exists between or within government, utilities, or the public sectors (see Table I-8 in Appendix I). The MPCA response provided the best explanation of how such an EIS could improve the overall long-range planning process:[122]

> A generic EIS should be done on the future energy needs of the state to illustrate alternative ways of providing this energy, and the environmental impacts associated with massive shifts to alternative supply sources together with comparisons with continued reliance on conventional sources. A start has been made on providing this kind of information in separate packages through the various resource studies produced by the Energy, Planning and Pollution Control Agencies and the Department of Natural Resources, but it has not yet been made of the full environmental and health consequences to the state of continuing on its present course or of making large scale changes in supplying its energy needs.
>
> In the November, 1976 Certificate of Need hearing, the PCA testified that a generic EIS covering the proliferation of construction of electrical power plants in Minnesota should be prepared. At that time Minnesota had approximately 7,000 megawatts of electrical generating facilities. Some forecasts suggested that 26,000 additional megawatts would be needed by the year 2000. Our testimony concluded that this could probably not be done without significant violation of our environmental standards. While the energy demand projections have been modified, there will still be a significant increase in construction of electrical power generating facilities due to the depletion of oil and natural gas supplies along with development of western sources of coal. Completion of an inventory of power plant sites along with a long-range energy demand forecast are needed before an EIS on future impacts of power plants can be initiated. Before major policies can be developed, information concerning future courses of action (e.g. alternatives, environmental impacts, economic impacts) must be developed. A generic EIS on power plants and energy use in Minnesota could be helpful to the Legislature in developing sound energy policies.

The "generic EIS" Along with the Inventory Report prepared by the MEQB would be the basis for preparing a "planning EIS" on a specific utility application.

RECOMMENDATION: A GENERIC EIS SHOULD BE PREPARED AND UPDATED AT PERIODIC INTERVALS ON (1) THE ENVIRONMENTAL AND ECONOMIC CONSEQUENCES OF ALTERNATIVE AND CONVENTIONAL ENERGY TECHNOLOGIES, OF DIFFERENT SIZES; (2) THE RELATIONSHIP OF THESE TECHNOLOGIES TO THE END USE ENERGY REQUIREMENTS; (3) THE IMPACT THE GOALS AND PLANS OF ENVIRONMENTAL PROTECTION IN THE LONG-RUN; (4) THE IMPACT OF ENERGY DEMAND PROJECTIONS UPON THE DEPLETION OF NATURAL RESOURCES; AND (5) THE IMPACT OF ALTERING THE TAX STRUCTURE, ELECTRIC RATES, RATIONING, AND RETROFITTING MORE ENERGY EFFICIENT PRODUCTS (IN SHORT, CONSERVATION) AS AN ALTERNATIVE TO BUILDING MORE POWER PLANTS AND LINES.

Under the normal EIS procedure, the draft EIS is required to be prepared within 120 days after the EIS notice publication date.[123] However, no time period is specified for the preparation of the draft EIS under the rules governing the environmental review for power plants and lines.[124] It is not clear that the 120-day preparation period for the normal draft EIS is at all applicable to the special cases of power plants and lines. If it is, the 120-day preparation period is unrealistic for the preparation of a draft EIS on power plants. First, the issue of the public health and environmental effects of power plants and lines is more complicated than many other "major" actions. Second, the MPCA needs at least one year to undertake baseline monitoring and analysis of proposed sites in order to determine the consequences of siting a plant at a particular location(s). Northern States Power Company (NSP) also believes that the 120-day preparation period is unrealistic:[125]

> NSP's experience on the SHERCO plant confirms that the amount of time allotted for preparation of an EIS in the regulations is unrealistic. The 120 days allowed for preparation of a draft EIS may be appropriate for a small project but is inadequate for a large project. For a large power plant, eight to ten months is more appropriate. In providing for a longer time period, a procedure should be established to ensure that the draft EIS is prepared in the allotted time. Currently, since there is no procedure to cover progress on EIS preparation, the MEQB has no alternative but to grant an extension to the deadline if the draft EIS is not finished in the allotted time.

In addition, the power plant siting, EIS, permiting process is complicated by the general lack of specific time periods or time periods that are unrealistic. For example, there are no time limits for permits issued by single agencies.

RECOMMENDATION: THE TIMING OF DECISION MAKING PROCESSES SHOULD BE SIGNIFICANTLY ALTERED SO THAT ALL INTERESTED PARTIES TO THE DECISION CAN RELY ON A SPECIFIC TIME TABLE FOR MAKING THE DECISION. THE FOLLOWING TIME FRAMES OFFER DEFINITE LIMITS ON AGENCY DECISIONS, BUT WITHIN REALISTIC TIME PERIODS:

(1) THE CERTIFICATE OF NEED DECISION SHOULD REMAIN AT SIX MONTHS;

(2) THE DRAFT PLANNING EIS SHOULD BE FINISHED WITHIN ONE YEAR;

(3) THE FINAL PLANNING EIS SHOULD BE COMPLETED WITHIN 90 DAYS AFTER COMPLETION OF THE DRAFT PLANNING EIS;

(4) THE SIZE(S), TYPE(S), AND STUDY AREA(S) DECISION SHOULD BE MADE WITHIN SIX MONTHS OF THE APPROVAL OF THE FINAL PLANNING EIS;

(5) THE DRAFT PROJECT EIS SHOULD BE COMPLETED WITH 450 DAYS OF THE SIZE(S), TYPE(S), AND STUDY AREA(S) DECISION;

(6) THE FINAL PROJECT EIS SHOULD BE COMPLETED WITHIN 90 DAYS AFTER COMPLETION OF THE DRAFT PROJECT EIS;

(7) THE FINAL LOCATIONS DECISION SHOULD BE MADE WITHIN SIX MONTHS OF THE APPROVAL OF THE FINAL PROJECT EIS; AND,

(8) PERMITS ISSUED BY A SINGLE AGENCY SHOULD BE ISSUED WITHIN ONE YEAR OF THE DATE OF APPLICATION, BUT NO APPLICATIONS SHOULD BE ACCEPTED UNTIL AFTER THE COMPLETION AND APPROVAL OF THE FINAL PROJECT EIS AND AFTER THE LOCATION DECISION(S) HAVE BEEN MADE BY THE MEQB.

It is expected that decisions involving lines alone would require substantially less time.

This recommendation simply puts in regulation form the existing practice in the preparation of a draft EIS on plants at the permitting stage.

The final issue is the proper role for the MEQB in its decision making on both siting power plants and lines and determining the need for and review of environmental impact statements. The D. C. Circuit Court of Appeals in Calvert Cliffs' defined the proper role of an agency under the National Environmental Policy Act:[126]

> NEPA establishes environmental protection as an integral part of the Atomic Energy Commission's basic mandate. The primary responsibility for fulfilling that mandate lies with the Commission. Its responsibility is not simply to sit back, like an umpire, and resolve adversary contentions at the hearing stage. Rather it must itself take the initiative of considering environmental values at every distinctive and comprehensive stage of the process beyond the staff's evaluation and recommendation.

Similar sentiments were expressed by the Minnesota Supreme Court in No Power Line v. MEQC:[127]

> It may very well be that the legislature gave a broader range of discretion to MEQC than it should have and that MEQC could better carry out its legislative mandate if it required the preparation of a draft environmental impact statement earlier in the process than it did. It may also be true that MEQC in the future should be more vigilant in protecting the alleged interests of the public and that it should play more of an active role as an advocate of environmental values. These considerations, however, fall outside the scope of our review and are more properly addressed to the legislature than to the courts.

RECOMMENDATION: MINNESOTA STATUTES, CHAPTER 116C (THE ENVIRONMENTAL QUALITY BOARD ACT) SHOULD BE AMENDED TO CLARIFY THAT THE MINNESOTA ENVIRONMENTAL QUALITY BOARD'S RESPONSIBILITIES INCLUDE THE RESPONSIBILITY TO ACT AS AN ADVOCATE OF ENVIRONMENTAL VALUES IN ALL PROCEEDINGS IN WHICH THE BOARD IS INVOLVED.

4.2 Conservation of Electrical Energy

There appears to be growing agreement on the need for increased energy conservation activities in the United States as well as the rest of the world. However, there is much disagreement as to the specific energy conservation actions that need to be undertaken, the energy savings that could result from taking a particular action, and the role that government, whether on the federal or state level, should take. There are a number of important, substantive issues

intermingled with energy conservation. These include (1) the role of economics, particularly pricing policies in influencing energy conservation; (2) the relationship between economic growth and energy conservation; (3) the necessity for and degree in changes in lifestyle which may result from an aggressive conservation program; (4) the credibility of government in declaring that an energy problem exists; and (5) the undesirable political effects, whether it be taxes or mandatory programs, that result from attempts to achieve an "adequate" level of energy conservation.[128]

The agreement on the need for increased energy conservation is based upon four principle arguments. First, the "energy crisis" is "not a temporary interruption of supply but a more fundamental change caused by our moving from an era of abundant energy to an era of scarce, expensive energy. . . " (emphasis not added).[129] Second, while not offered as a total solution to the energy problem, conservation can (1) slow the growth rate of energy consumption; (2) stretch the remaining life of fossil fuels; (3) reduce the environmental impacts of energy production and use; (4) hold down the U. S. foreign trade deficit; and (5) help to keep the price of energy within peoples' reach.[130] Third, energy conservation is "a strategy [that] is not in competition with the present energy industries nor with the present efforts to increase the supply capacities of these industries. Rather, it is a common-sense effort that offers substantial promise for helping to meet anticipated demand requirements, and for minimizing the economic and social costs resulting from unexpected supply problems."[131] Finally, the amount of energy that can be conserved without interfering with lifestyles is considerable. The Worldwatch Institute has noted that "the contention that the U. S. energy budget can be gradually cut by more than one-half without altering the nation's standard of living is certainly conservative."[132] Sweden, for example, uses less than two-thirds as much energy per capita as Americans, at the same standard of living.[132A] For example, if the American Institute of Architects' strategy for energy conservation in buildings were implemented, it is expected that the savings in 1990 would amount to 12.5 million barrels of oil per day of petroleum equivalents, which "is nearly equal to the forecasted

shortfall in supply, or about two-thirds of the [petroleum] imports projected."[133]

The importance of conservation in helping to protect the environment cannot be understated. The Minnesota Pollution Control Agency (MPCA) Board has developed a position paper, which outlines why conservation is important in protecting the environment.[134]

> In considering the multiple and pervasive environmental and social effects of producing, transporting and consuming energy, the MPCA Board recognizes that: 1) energy sources available to Minnesota are derived mainly from petroleum, fossil and nuclear fuels; 2) there are acute and chronic social, health and environmental effects associated with each phase of energy production and distribution, regardless of which of the fuel types are involved; and 3) undesirable effects of energy production and use are needlessly compounded when energy is wasted through inefficient production and unwise or unnecessary consumption. The MPCA Board recognizes and understands the importance of energy in meeting society's desire for a quality living standard and a growing economy. But the Board believes that the present level and rapid growth in energy consumption are excessive as compared with other industrialized and prosperous nations where per capita energy consumption is far less in the United States.
>
> The environmental and health consequences of producing and transporting energy have been of concern to the MPCA for as long as there has been an agency. Numerous environmental-permit hearings have been conducted to determine whether discharges from fossil and nuclear plants meet regulatory requirements. The Agency currently is preparing environmental impact statements for two large electric generating stations in Minnesota. Through participation on the Environmental Quality Council, the Agency has become involved in "need" assessments for power-generating facilities and in the siting of those facilities. The Agency also has been involved in energy considerations in other ways, including permit requirements for oil refining facilities, permit requirements for oil-fired steam facilities and in addressing the serious air quality deterioration attributable to the inefficient consumption of fuels in automobiles and other vehicles. The Agency also is concerned about the environmental consequences of imminent fuel shortages; for example, the curtailment of natural gas in Minnesota causing a switchover by industry, institutions and commercial establishments to oil and coal energy sources, both of which cause significantly more air pollution than does natural gas.
>
> In view of the foregoing, the MPCA Board believes that a high priority must be placed on the conservation of energy. Despite urgent warnings by an impressive array of experts and concerned citizens that wasteful and unnecessary energy consumption poses serious environmental and social implications, the Board notes with dismay that energy production and consumption rates remain fundamentally unchanged. It is imperative that the Minnesota Legislature and the federal government act with dispatch to implement mandatory measures to improve the efficiency of energy production technology and to otherwise conserve energy by eliminating wasteful and needless consumption. Significant energy conservation will not be easy and will require changes in both traditional attitudes and lifestyles. To encourage legislative action in energy conservation, the

> Agency is prepared to join those who are concerned about nuclear power, power line corridors, coal terminals, coal waste products and all other problems posed by the growth in energy consumption.

There exists on both the federal and state level a conservation policy. These policies are reviewed in Chapter Two, section 2.2A. The goals of the conservation policy in Minnesota have been established by the Minnesota Energy Agency and include [135]

> (i) to obtain adequate and secure supplies of petroleum; (ii) to seek our share of the available natural gas and help direct it to the highest-priority users; (iii) to develop a coal use plan that balances energy, environmental and economic considerations; (iv) to promote alternative energy sources; (v) to obtain adequate supplies of electricity and achieve the greatest possible efficiency in the generation, transmission, and end-use of electricity; and (vi) to implement a comprehensive conservation plan.

One of the goals listed above is "to obtain adequate supplies of electricity and achieve the greatest possible efficiency in the generation, transmission, and end-use of electricity." There are a number of advantages in increasing the efficiency of the generation, transmission, and end-use of electricity. The primary advantage is that it reduces the need for addition generation and transmission capacity. For example, a Rand Corporation study in California presented a scenario employing a considerable energy conservation effort. When the savings for the residential and commercial sectors alone are projected through the year 2000, they totaled one-half of the Conventional Utility Projection (CUP). For California this would mean that instead of 153,000 MW of new capacity (127 plants of 1200 MW each), only 54,000 MW of new capacity (45 plants of 1200 MW each) would be required.[136] An independant analysis of this savings showed that the transmission line miles would be reduced from 67,505 miles to 23,830 miles for all sizes of KV lines (115 KV to 765 KV lines).[137] While all the conservation measures suggested by the Rand study could not carry over to Minnesota, it is noteworthy that they assumed no reduction in demand by the industrial sector. Other studies have not found such large reductions in residential or commercial demand, but, nevertheless, they have found significant possibilities for conservation in

industry.[138]

In a 1978 rate application by Pacific Gas and Electric (PG&E) before the California Public Utilities Commission, estimated a savings of 3,763 GWH per year (GWH-(gigawatt hours)=10^9 or one billion watt-hours) by 1985 and 7,139 GWH per year by 1995 through increased end-use efficiency.[139] An independent study on savings from increased end-use efficiency estimated a savings of 13,243 GWH per year by 1985.[140] In either case significant savings can be achieved by increasing the efficiency of end-uses of electricity. Further, these savings can be translated into a significant reduction in the need for additional generation and transmission capacity.

The Minnesota Energy Agency has also recognized that increasing end-use efficiency can be translated into a significant reduction in the need for new plants and lines. John Armstrong, Assistant Director for Conservation in the MEA, testified in the hearing on the Reconsideration of the In-Service Date for NSP's Sherco 3 plant that (1) between 154 and 193 MW could be reduced in NSP's electricity demand peak due to electric water heater control by 1985; (2) 21 to 60 MW reduction in peak electricity demand could result from mandatory energy audits by 1982; (3) 380 MW could be saved in 1985 by permitting NSP to earn a rate of return on conservation investments in the commercial and residential sectors; and (4) 90 MW could be reduced in peak demand by 1985 by improving residential appliance efficiency.[141] In sum, between 645 and 723 MW could be reduced in NSP's electricity demand peak through conservation. Since NSP provides 84% of the electricity used in Minnesota, excluding taconite and paper electric use, conservation programs, if aggressively implemented, could result in the reduction in the need for at least one new electric plant in Minnesota.

There are many problems in the U. S. in attempting to achieve significant energy conservation. Energy consumption is dependent on (1) the energy efficiency of existing products and equipment that use energy, and (2) the way consumers operate or use the existing stock of products (traditional use patterns). Altering energy

consumption patterns requires changing one or both of these factors.[142] Energy consuming products can be modified in two ways. In the short term these products can be made more efficient through retrofit. In the long run these products can be replaced with more energy efficient products. In both instances efficient energy products or retrofit devices must be available in sufficient quantities and consumers must choose these products over less efficient ones before energy consumption can be reduced. Altering traditional energy use patterns involves the way individuals, businesses, and others carry out their daily activities. These types of changes are difficult because of the sheer number of consumers that need to be affected and because the change in daily activities may, from a consumer viewpoint, be in a less convenient fashion.[143] The change in consumer behavior required to implement some conservation measures is compounded because "the growing demand for energy as a matter of either public policy or private practice runs contrary to the trend of the last several decades."[144]

Although significant efforts at conservation have been made since the oil shortage of 1974, these efforts have not matched the effectiveness of efforts in many other countries. The International Energy Agency ranked the United States in 1976 as 14th among the 18 members in its energy conservation efforts and noted: "The American program must overcome an extremely high per capita historical energy consumption pattern and as such must be comprehensive and strong to be effective. At the present time, it is neither."[145] Similar findings were reached in a 1978 GAO (General Accounting Office) report, which concluded that the U. S. energy conservation effort could benefit from experiences of other countries including the United Kingdom, West Germany, Sweden, and Denmark.[146]

There are a number of policy options available to encourage the conservation of electricity. First, policies can be designed to elicit voluntary responses from consumers by creating an awareness of the benefits of energy conservation, both in terms of dollar and energy savings. Specific policies would center around

consumer education, appliance labeling, and providing financial incentives for the development and use of energy saving devices. Second, policies can be designed which indirectly affect the market. This involves either raising the effective price of energy and/or lowering the real cost of implementing energy conservation measures, such as more energy efficient products. For example, specific programs, which provide financial incentives to conserve energy, include tax credits, grants, low interest loans, or loan guarantees to businesses or individuals, and other tax relief for users who install more efficient equipment or manufacturers who make such equipment. Financial disincentives can also be enacted through the taxing power by providing taxes on energy (i.e., taxes based on the estimated average annual electricity use of the equipment, elimination of promotional rebates to builders and users), taxes on the energy user (such as a sales tax), or taxes on those who use disproportionate quantities of energy. Third, policies can be designed which directly affect the market, which involves governmental regulation or restriction of energy use or energy-using products. These are basically prescriptive policies which include changes in the building code; bans on the manufacture, sale, or installation of certain types of equipment; restrictions on wattages or minimum efficiency of electrical equipment or appliances; restrictions on new building permits; and explicit rationing of electricity and other forms of energy. Finally, policies can be designed which change the user cost of electricity, either through taxes as noted above or through changes in the overall price mechanism, which means changes in the rate schedule.[147] Several examples of policies contained in Table 4-1, with some specific examples listed with a summary of their characteristics in Table 4-2.

An analysis of these policy options is beyond the scope of this paper. However, as a recent National Academy of Sciences report noted, conservation efforts to reduce the growth of energy demand "should be accorded the highest priority in national energy policy."[147A] (Emphasis added) The question that this section addresses is whether the process permits the consideration of policy options.

TABLE 4-1

POLICIES FOR SLOWING THE GROWTH RATE IN ELECTRICITY CONSUMPTION

	Policies that Affect Prices		Nonprice Policies	
	of Electricity	of Appliances	Voluntary	Proscriptive
Initiate consumer education programs				
Basic conservation practices			X	
Efficiency labeling of appliances			X	X
Provide tax incentives				
Encourage energy efficient building design		X		
Encourage solar heating		X		
Encourage more efficient appliances		X		
Change electricity rate schedules				
Increase rates	X			
Change rate structures	X			
Peak load pricing	X			
Restrict promotional activities				
Advertising			X	X
Builder promotions			X	X
Appliances			X	X
Change building codes				
Tighten insulation standards				X
Heat-reflecting glass				X
Minimize internal heat source by venting				X
External sun shades				X
Impose taxes as disincentives				
On electricity sales	X			
On electrical appliance sales		X		
On incandescent bulbs		X		
On peak loads	X			
Restrict selected uses of electricity				
Heating, cooling, water heating, cooking, clothes drying, refrigeration			X	X
Restrict issuance of new building permits				X
Undertake long-term rationing				X

Source: Doctor, R. D. et al., California's Electricity Quandary: III. Slowing the Growth Rate, R-1116-NSF/CSA, Santa Monica: The Rand Corporation, September 1972 (Prepared for the California State Assembly).

TABLE 4-2

SUMMARY OF CHARACTERISTICS OF FIVE ENERGY CONSERVATION POLICIES

	Building Design and Construction Changes	Advertising and Promotion Changes	Electricity Use Efficiency Incentives	Rate Changes	Rationing & Restricting Certain Uses or Devices
Problem	Too much electricity is used for space conditioning	Advertising and promotions aimed at increasing use of electricity	Electrical devices are inefficiently designed and used	Rate schedules give incentives for high volume use	Energy is provided without regard for need
Policy	Use design and materials that improve efficiency	Permit only ads and promotions that encourage more efficient use of electricity	Provide incentives for production and use of more efficient electrical apparatus	Adjust rates to discourage or reschedule use	Restrict availability of electricity or certain electrical devices
Action	Change the State Housing Code or the Uniform Building Code and local codes	CPUC advertising and promotion regulations	Tax system changes or subsidies or bonuses; labeling	Increase rates across the board; raise unit costs for high volume use	Schedule brownouts or blackouts
Variations	Voluntary compliance; standards issued by lenders or insurers	Variations in stringency and interpretation	Negative sanctions for devices not meeting efficiency minimums	Adjust rates for hour, day or season; various rate schedules	Timers or governors on devices; temporal, seasonal or geographical restrictions
Parties in the Decision Process	State legislature; ICBO and local city councils	CPUC, utility companies, Legislature	Legislature	CPUC, utility companies	Legislature, CPUC
Parties Affected	Developers, architects, home or commercial building buyers	Electrical manufacturers, utilities	Manufacturers, vendors, customers and consumers	Large users of electricity, perhaps all users	Utilities, manufacturers, consumers
Institutional Effects	Agencies already exist for both adoption and implementation	Nominal	No existing organization to develop and administer the policy	Nominal	No existing agency to develop or monitor restrictions
Problems & Bottlenecks	Localized requirements	Citizen actions against utilities; interpretation of the regulations	Setting standards and verifying performance	Developing equitable and effective rates	Identifying essential uses and users
Timing: Adoption & Effects	1 to 2 years for adoption; effects would increase over years	Up to 1 year for adoption; both immediate and long-term effects	3 to 4 years for adoption of a thorough program; effects would occur over several years	About 1 year for adoption; both immediate & long-term effects	3 or 4 years for adoption of a thorough program; effects could begin immediately.
Type of Impact	Direct, predictable	Indirect, not very predictable	Indirect, not very predictable	Indirect, partially predictable	Direct, predictable
Effects: Economic, Social & Political	Building may cost more for design, and possibly for construction; less operating cost for electricity; HUD may resist increased home purchase prices	Lower utility bills; fewer appliances or features sold; different living habits, status for decreasing use of electricity; some opposition by electrical manufacturers	Lower bills; direct benefit to some manufacturers; certain use patterns might change	New economies of scale, some prices may rise; opposition would come from major users	Some prices may rise; work hours or days may be rescheduled in some cases; opposition would come from those most affected

Source: Doctor, R. D., et al., California's Electricity Quandary: III. Slowing the Growth Rate, R-1116-NSF/CSA, Santa Monica: The Rand Corporation, September 1972 (Prepared for the California State Assembly).

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Encourage solar heating		X		
Encourage more efficient appliances		X		
Change electricity rate schedules				
Increase rates	X			
Change rate structures	X			
Peak load pricing	X			
Restrict promotional activities				
Advertising			X	X
Builder promotions			X	X
Appliances			X	X
Change building codes				
Tighten insulation standards				X
Heat-reflecting glass				X
Minimize internal heat source by venting				X
External sun shades				X
Impose taxes as disincentives				
On electricity sales	X			
On electrical appliance sales		X		
On incandescent bulbs		X		
On peak loads	X			
Restrict selected uses of electricity				
Heating, cooling, water heating, cooking, clothes drying, refrigeration			X	X
Restrict issuance of new building permits				X
Undertake long-term rationing				X

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Problems & Bottlenecks	Localized requirements	Citizen actions against utilities; interpretation of the regulations	Setting standards and verifying performance	Developing equitable and effective rates	Identifying essential uses and users
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Source: Doctor, R. D., et al., California's Electricity Quandary: III. Slowing the Growth Rate, R-1116-NSF/CSA, Santa Monica: The Rand Corporation, September 1972 (Prepared for the California State Assembly).

A review of the statutes, which is provided in Chapter Two, section 2.2A, shows the following. First, energy conservation is the policy of the State of Minnesota. Second, the primary function of the MEA is to promote and elicit voluntary energy conservation functions from consumers and to enforce specific, statutory energy conservation measures. Third, the PSC must, under the National Energy Act of 1978, in particular, sections 111 and 113 of the Public Utilities Regulatory Policies Act, hold hearings to determine the appropriateness of implementing energy conservation measures which may affect the rate schedules.

The present conservation policies do not generally address direct or indirect market approaches, to energy conservation as outlined above. These approaches include little in the way of a taxing policy, a tax relief policy or tax credits, loans, etc. for electric energy conservation. They do not restrict the use of energy inefficient equipment or provide specific authority for the agencies to restrict such equipment, (require retrofitting or minimum efficiency rating, except for air conditioning and lighting), nor do they address the issue of rationing (except in emergencies) of electrical energy.[148] Since many of these issues were addressed in the Final Report of the House Select Committee on Energy, and the MEQC Energy Policy Task Force Report this report recommends that the Legislature pay close attention to the recommendations of those reports (see appendix II and V, respectively).

4.3 Electric Rates and the Poor

It is generally assumed that the more money people have, the more energy they use. Regardless, studies show that the poor spend a greater percentage of their income on energy than the middle or upper income people. The Ford Foundation report A Time to Choose found that "the poor spend almost 15 percent of their household income on energy, while the high consumption of fuel by the rich typically accounts for only 4 percent of their incomes. Any major price increases will thus cause hardship to poor families, since their energy use levels do not include a margin of extra amenities easily done without."[149]

In 1974, electric power rates increased 55 percent.[150] In the same year, $9.6

billion in increases were granted to gas and electric utilities.[151] Between 1969 and 1974 energy costs increased more than any other item on the consumer price index, except food:[152]

TABLE 4-3

Changes in CPI, for Selected Items:
May, 1969 - May, 1974

Total Consumer Price Index	Up 34%
- Electricity	Up 40%
- Gasoline	Up 58%
- Fuel Oil	Up 100%
- Food	Up 49%

Source: Newman, D. and Day, O., The American Energy Consumer 1975, p. 112

Since, 1974, energy price increases have exceeded the food price increases.[153]

These price increases have caused increased hardship to poor people. According to the Federal Energy Agency (FEA), "low and fixed income families have been under increasing pressure as they pay for electricity and natural gas which consumes an increasing proportion of their income despite their efforts at conservation."[154] Many studies have examined the effects of increased prices for electricity on the various sectors of society. A RAND study found that low income use as a percentage of income increases substantially with new price increases.[155] A study in Winston-Salem, North Carolina found that poor people used an average of eight percent of their income for electricity.[156] Both of these studies noted that an increase in electric rates would affect the ability of the poor to purchase other necessities, most notably food and rent. A 1976 study in Oklahoma City found similar results to the Winston-Salem study.[157] A Detroit area study (though generally considered incomplete) found that an average inner city household pays 11 times as much per unit of electricity as does a family in a wealthy suburb (Bloomfield Hills).[158]

A nationwide study conducted by the Washington Center for Metropolitan Studies for the Ford Foundation Energy Policy Project found that electricity costs were

inversely proportional to income.[159]

TABLE 4-4

Percentage of Income Paid for Electricity - 1973

Lowest income quartile	5.2% of income
2nd to lowest quartile	2.1% of income
3rd to lowest quartile	1.5% of income
4th to lowest quartile	1.1% of income

Source: Newman, D. and Day, D., The American Energy Consumer, 1975, p. 130

These figures are similar to those found by the Bureau of Labor Statistics in 1960-61:[160] "According to this data, only the poor suffered an increase in electricity costs as a percentage of income between 1961 and 1975; all other groups experienced a decrease."[161]

The Washington Center study also noted that not only did the poor pay more for electricity, but that their electricity was used almost exclusively for essentials:[162]

> Poor and lower middle income households use less fuel for the essentials of heating, lighting, and cooking because they are forced to be thrifty, and because their homes are modest. They are more likely to live in apartments or homes with only a few rooms and a few windows.
>
> Half the poor and one-third of the lower middle households are dependent upon a landlord for repairs and any major energy conserving improvements. Some poor households do without what is common in others. About 15% of the poor do not have central heating; almost 10% share a bathroom with another family or have no indoor toilet at all; 8% have no hot running water.

The results of the Washington Center study match earlier studies showing that the poor have limited price elasticity. A RAND study in the Western United States found a significant difference in the ability to reduce consumption of electricity between households with incomes under $5,000 and households with incomes over $15,000.[163] A Los Angeles RAND study found that higher income groups have a greater ability to reduce consumption when faced with price increases.[164] The Winston-Salem and Oklahoma City studies found that, at low income levels, the combined factors of fixed

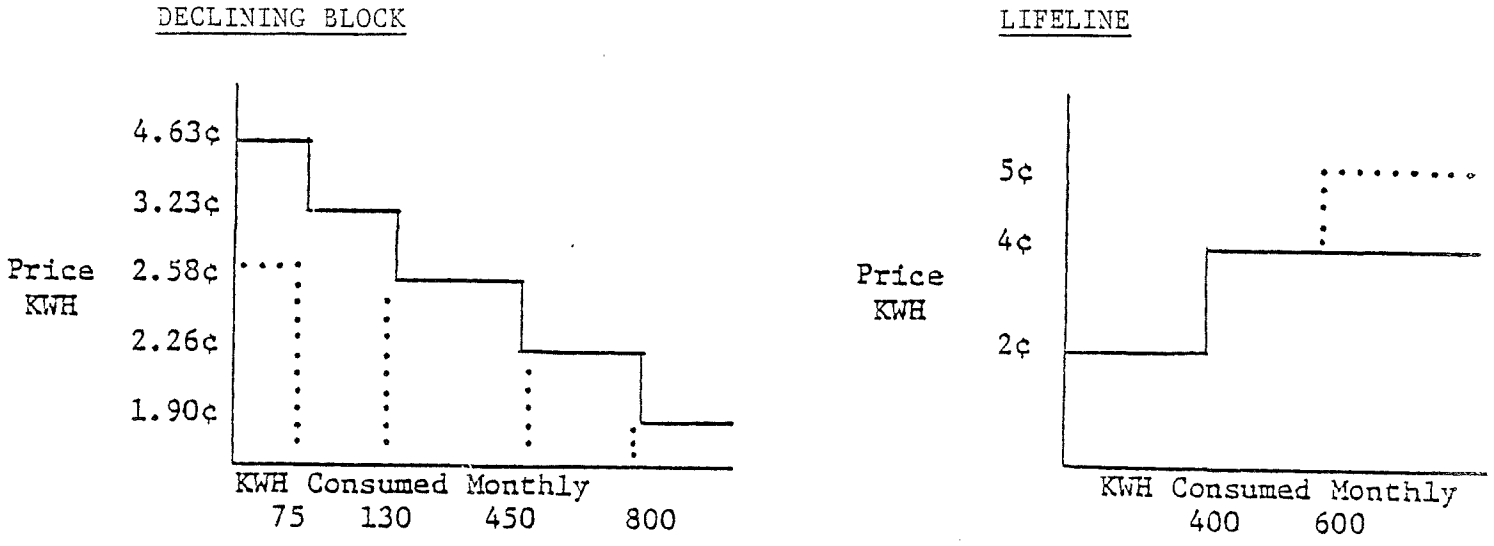
income and necessity left little room for price elasticity: "Recent research findings have shown that among low-income households in the United States, electric usage tends to be regorously economized."[165] The Winston-Salem study also found that a reduction of food purchases is generally the only elastic part of low-income family budgets, and it postulates that any large increase in electricity rates results in comparable decrease in levels of food spending and in nutrition.[166] In sum, as the Electric Power Research Institute has noted, it is time to "bury once-and-for-all any notion that the price of electricity is not an important detriment of the amount of electricity that households consume."[166A]

It has been recommended both nationally and in Minnesota that the effects of increasing energy costs not unduly burden the poor and others on fixed incomes. Hazel Rollins, Acting Deputy Administrator of the Economic Regulatory Administration of the Department of Energy, noted that "no geographic, ethnic, or income group should have to bear an unfair share of the total burden, and none should reap undue benefits from our energy problems. It is particularly important that we protect the elderly, the poor, and those on fixed income from disproportionally adverse effects on their incomes."[167] In addition, the MEA has offered as one of their energy policy recommendations that "appropriate legislation to provide assistance for consumers most impacted by higher electricity costs" be undertaken.[168]

One proposal that has been offered to alleviate the impact of rising electric rates on the poor, the elderly, and others on fixed incomes is the establishment of "lifeline" rates as a component of the rate structure. While there is no rigid definition of lifeline, the purpose is to structure the rates in such a way that residential users pay a reduced price for relatively small quantities of electricity (for example, the first 300 or 500 kilowatt hours used per month) necessary for essential needs. The underlying premise behind the lifeline concept is to reduce the price of electricity to residential users who consume small quantities. This means that lifeline rates refer to the level of use and not the economics of the user. In direct contrast to the declining block rate structure, lifeline would provide the lowest price per kilowatt-hour to the first units of consumption,

FIGURE 4-1

EXAMPLES OF DECLINING BLOCK AND LIFELINE RATE STRUCTURE



Source: Lepp, M. et al., Aspects of Public Utility Regulation, Ohio Legislative Service Commission, June 1977, p. 55.

TABLE 4-6

ELECTRICITY USE (KWH) BY END USE AND CLIMATIC ZONE

CLIMATIC ZONE	LIGHTING, COOKING FOOD REFRIGERATING	WATER HEATING	SPACE HEATING[1]
Less than 2,500 degree days	240 kwh	250 kwh	550 kwh
2,500 to 4,500 degree days	240 kwh	250 kwh	800 kwh
4,500 to 7,000 degree days	240 kwh	250 kwh	1,120 kwh
Over 7,000 degree days	240 kwh	250 kwh	1,420 kwh

1. Applies only November through April. There is also a separate schedule which applies only to apartment buildings since they have lower space heating requirements per unit than single family dwellings.

Source: Lepp, M. et al., Aspects of Public Utility Regulation, Ohio Legislative Service Commission, June 1977, p. 59.

rather than the last units. Figure 4-1 shows examples of a lifeline and declining block rate structure. In short, the lifeline concept assures each residential customer that he or she can obtain a low, fixed rate for the minimum necessary electricity requirement. The minimum necessary electricity in the first lifeline block would be a fraction of the average electricity consumed per month by residential users. Table 4-5 shows the average electricity consumption estimate for Minnesota in 1975. As may be seen, the average residential user in Minnesota consumed 630.7 kwh. per month of electricity. The proposal also provides that revenues lost as a result of lowering rates for a minimum necessary use can be recovered in an "equitable" manner by increasing rates applied to residential consumption beyond the lifeline level and/or to industrial and commercial use.

A lifeline rate structure offers three apparent advantages. First, it provides rate relief to residential users who use only small amounts of electricity. These users are thought to be the poor, the elderly and others on fixed incomes. Second, lifeline rates promote conservation by providing an economic incentive to hold down consumption. Finally, rates are easy to understand, can be placed in effect without much delay, and are politically and administratively advantagous to the government because they require no new tax revenues to administer "the program."[169] As a result of these multiple advantages, the lifeline rate concept has taken different form in the several states which have implemented them.[170] In California, for example, lifeline rates have generated strong support as a method of slowing down growth in electricity consumption.[171]

One difficulty in establishing the lifeline rate structure is establishing the lifeline quantity.[172] A number of factors can make the determination of how much electricity is necessary for essential uses very difficult. These include the climatic zone in which the customer lives, fluctuations in the degree of severity of winters, the size of the house or apartment, the manner in which the house is heated, the manner in which the water is heated, and which appliances are "necessary." There is general agreement that lifeline rates should apply to only essential uses. This is the backbone of both the rate relief and conservation objectives of the concept. Consequently, any lifeline rate structure must deal with these issues.

FIGURE 4-1

EXAMPLES OF DECLINING BLOCK AND LIFELINE RATE STRUCTURE

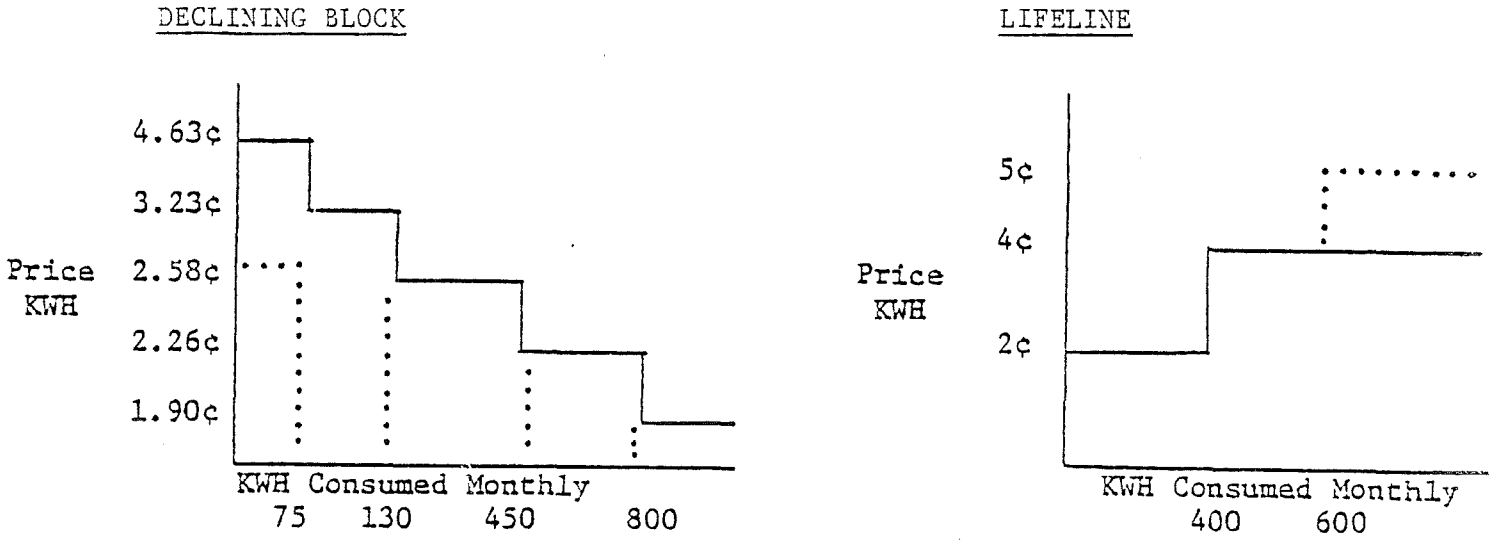


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TABLE 4-5

MONTHLY ELECTRICITY CONSUMPTION ESTIMATE

A. Annual Residential Electricity Sales:	$10{,}019 \times 10^6$ kwh[1]
B. Average Number of Residential Electricity Customers:	1,323,797[1]
C. Average Annual Residential Electricity Consumption per Customer (A. ÷ B.):	7,568.4 kwh
D. Average Monthly Residential Electricity Consumption per Customer (C. ÷ 12):	630.7 kwh[2]

1. Edison Electric Institute, Statistical Yearbook of the Electric Utility Industry, 1975, pp. 33, 40.

2. Peterson, J., Residential Energy Prices in Minnesota, Minnesota Energy Agency, September 1977; From Table 3(p. 12): Cooking, lighting, air conditioning and other appliance electricity use requires 481 kwh per month. Average monthly usage computed here is higher since electric consumption for water heating and space heating is included in annual Residential Electricity Sales.

Source: Peterson, J., Residential Energy Prices in Minnesota, Minnesota Energy Agency, September 1977, p. 19.

The adoption of lifeline rates by the California Public Utilities Commission has provided for climatic conditions, different appliances mix, and separate heating and nonheating season quantities. Table 4-6 shows the interim lifeline schedules for electricity in California. As may be seen, the rate of electricity in the lifeline block across these factors is 1,180 kwh per month (from 240 to 1,420 kwh per month).[173]

Do lifeline rates help the poor? It is often contended that lifeline rate structures will benefit the poor because lower income families consume less electricity than more affluent households. A study by the Ford Foundation shows this to be true.[174] However, in a study conducted by the Columbus and Southern Ohio Electric Company, only 81.2% of families in low income areas would get a bill reduction under the lifeline rate proposal offered as an amendment to the Ohio Constitution in 1976. In addition, nearly 20% of the families in the low income areas would pay higher electric bills. Further, nearly 30% of families in high income areas would get a bill reduction.[175] It is not clear from this study, however, that the families in low income areas who obtain a bill increase are in fact poor and conversely, it is not clear that the families in high income areas who obtain a bill reduction do in fact have high incomes. In the latter case, this is not necessarily bad since one goal of the lifeline proposals is to reduce consumption overall. However, the potential of increasing the cost of electricity to the poor, the elderly and others on fixed incomes should be considered in any lifeline rate decision.

In addition, a lifeline rate which focuses only on small residential users of electricity will fail to reach some of the poor. These include (1) those members of the poor and others on fixed incomes whose utility costs are included in the rent payments; (2) the poor whose electric use is at or above average (perhaps as much as 15% of the poor); and (3) those members of the poor who have electric water heaters and electric space heaters (where these factors are not included in the lifeline rate structure).[176] It has been suggested that if the policy goal is to

relieve the electricity costs burdens to the poor, then "It may be preferable to employ income tests to identify directly those who are in need."[177]

Another issue with the lifeline rate concept is that it sets up discriminatory rates by providing lower rates to a select group of residential users (those who use very little electricity) in order to accomplish a social policy. Generally, discriminatory rates are considered unjust and unlawful. The following cases review in a general way as to what constitutes unjust and unlawful discrimination:[178]

> Discrimination must be unjust to be unlawful, and to be unjust it must be shown that rates to preferred points are not justified and the conditions are the same as at the point alleged to be damaged. The mere showing that rates from one point in a territory are higher than rates from other points in that territory, whether sustained by the same or different carriers, does not establish the fact of undue prejudice or preference. Sperry Flour Co. v. Island Transportation Co. (Cal.), P.U.R. 1928A, 564. There must be a difference in rates under substantially similar conditions for substantially the same service to constitute unjust discrimination. New York Tel. Co. (N.Y.), P.U.R. 1928D, 254. The practice of a municipal utility of charging some flat-rate water consumers less than the lawful rate, while others are charged more, was held to be discriminatory. Skogmo v. River Falls, (Wis.), P.U.R. 1917E, 964. The failure of a motor carrier to adhere to its published schedule by charging express rates for freight and freight rates for express results in unlawful discrimination in the matter of charges against its patrons and in unfair competition with a railroad operating between the points served by the motor carrier. Re Sale Lake & Utah R. Co. (Utah), P.U.R. 1925A, 154. A public utility is under obligation, moral and legal, to treat all contractors alike in making rates for service to be used in building operations, and to advise them in advance just what such rates will be. Re Special Contracts by Gas & Electric Companies (N.Y.), P.U.R. 1931E, 302.

However, services without charge or at reduced rates have been permitted for services provided to churches, charitable organizations, and others on the theory that the operation of these organizations are for the public good and therefore justifiable. "It is clear, however, that it results in forced donations to the charitable agency by those who pay the full rates. It thus becomes a matter of public policy, and its continuance can be justified only on grounds of social desireability."[179]

Presently, Minnesota law prohibits rate preferences. Minnesota Statutes §216B.07 provides that "no utility shall, as to rates or service, make or grant any unreasonable preference or advantage to any person or subject any person to any unreasonable prejudice or disadvantage."[180] Do lifeline rates constitute "unreasonable preference or advantage" or subject others to "unreasonable prejudice or disadvantage?" No litigation or policy statement by the legislature, attorney general or PSC has answered this question. However, the Public Utility Regulatory Policies Act (PURPA) enacted by congress as part of the National Energy Act of 1978 does address this point. Section 111(d)(1) of PURPA provides that "rates charged by any electric utility for providing electric service to each class of electric consumers shall be designed, to the maximum extent practicable, to reflect the costs of providing electric service to such class."[181] An exception to this section is provided in section 114 with regard to lifeline rates:[182]

> (a) Lower Rates.--No provision of this title prohibits a State regulatory authority (with respect to an electric utility for which it has ratemaking authority) or any nonregulated electric utility from fixing, approving, or allowing to go into effect a rate for essential needs (as defined by the State regulatory authority or by the nonregulated electric utility, as the case may be) of residential electric consumers which is lower than a rate under the standard referred to in section 111(d)(1).
>
> (b) Determination.--If any State regulated electric utility or nonregulated electric utility does not have a lower rate as described in subsection (a) in effect 2 years after the date of the enactment of this Act, the State regulatory authority having ratemaking authority with respect to such State regulated electric utility or the nonregulated electric utility, as the case may be, shall determine, after an evidentiary hearing, whether such a rate should be implemented by such utility.

Assuming that PURPA is constitutional (and it probably is,given recent U. S. Supreme Court interpretations of the commerce clause), then states may adopt lifeline rates. If Minnesota does not adopt such rates, it must still hold an evidentiary hearing on the matter. In addition, the Minnesota Office of Consumer Services/Residential Utility Service Unit (OSC/RUSU) has advocated some aspects of the lifeline rate concept in hearings before the Public Service Commission (PSC). In at least two instances, the PSC has included lifeline aspects in the rate structure.[183]

An alternative to lifeline rates as a way of protecting the poor or others on fixed incomes from the rising costs of electricity is the use of energy stamps. Energy stamps are similar in design and utilize the same administration as food stamps. Energy stamps have been suggested in the Ford Foundation Study as one method of helping the poor:[183]

> • Government contingency planning is needed to help lower-income families cope with shortages and sharp price increases. Emergency policies might include a system of "energy stamps" (similar to food stamps), as well as special grants or fuel allocations to low income persons who demonstrate potential hardship as a result of shortages or price increases for energy.

The energy stamp proposal offers several benefits as opposed to the lifeline proposal:[184]

> The comparative advantages offered by a fuel stamp program are many. First, as long as the eligibility standards parallel those for existing food stamp or other public assistance programs, the costs of administering a fuel stamp program should be low. Second, under such a program, the poor are identified directly and assisted in lieu of relying upon electricity use as the basis for allocating benefits. Where utility costs are included in rent, fuel stamps can be used to make a portion of the rent payment. Potentially, therefore, fuel stamps provide a sharply focused means of providing energy cost relief to the poor. Third, inasmuch as fuel stamps may be used to pay gas or fuel oil bills as well as electricity bills, unnecessary discrimination against the poor who happen to use electricity for cooking, water heating, or space heating is avoided. Finally, a much more meaningful level of aid can be provided than the $2 to $8 a month savings offered by the lifeline rate approach. Potentially, therefore, fuel stamps offer a way to solve all the problems that are associated with lifeline rates.

There are also several disadvantages to the energy stamp proposal. First, if the eligibility requirements are not the same as food stamps, then a major hurdle is imposed in determining who is eligible for the energy stamps. Second, even if the eligibility requirements were the same as food stamps, it does not insure that the poor will benefit. Current estimates are that 50% of those eligible for food stamps do not apply for them.[185] Published reports indicate that in some cities energy stamps have found resistance by eligible groups.[186] Third, energy stamps,

under any conditions, place another strain on a finite amount of tax dollars. It may also increase the administrative staffs of the welfare agencies in order to administer the program.[187] Fourth, the subsidization of electricity consumption through the use of energy stamps does nothing to encourage conservation by either the poor or the rest of residential users. Finally, a fixed cash payment in lieu of energy stamps for eligible recipients would encourage conservation among the recipients since it would be in their interest to maximize residual cash to spend on other items. However, a fixed cash system would still not encourage conservation among other residential users.[188]

Since there exists a general policy within Minnesota to help the poor (M.S. Chapter 261), the rising costs of electric rates should not unduly burden the poor, the elderly, and others on fixed incomes. Because the data shows that people are reluctant to use stamps, whether food or energy stamps, and because energy stamps do not encourage conservation, a program that provides relief for the poor as well as encourages conservation should be adopted.

RECOMMENDATION: IT SHOULD BE THE POLICY OF MINNESOTA TO PROTECT THE POOR, THE ELDERLY, AND OTHERS ON FIXED INCOMES FROM THE RISING COSTS OF ELECTRICAL ENERGY. THEREFORE, THE PUBLIC SERVICE COMMISSION SHOULD BEGIN HEARINGS TO ENACT A "LIFELINE" RATE WHICH BENEFITS THE POOR AND ENCOURAGES CONSERVATION. THE LIFELINE RATE STRUCTURE SHOULD REFLECT ALL FACTORS WHICH AFFECT ESSENTIAL USES OF ELECTRICITY.

Lifeline rates or energy stamps are indicative of the piecemeal approach which has characterized the economic and social equity problems that have and continue to face our nation. They are, however, better than nothing. As the Energy Policy Project of the Ford Foundation noted: "The social equity problems of our nation go far beyond energy, and cannot be solved through energy policy. Since energy is essential and comprises a large--and growing--amount of poor people's budgets, we conclude that the social equity implications of high energy prices should be resolved by a national commitment to income redistribution measures, such as a guaranteed minimum income or a negative income tax."[189]

4.4 Summary of Findings and Recommendation

Chapter Four focuses on three aspects of electrical energy policy: (1) power plant siting and the environment (section 4.1); (2) conservation of electrical energy (section 4.2); and, (3) electric rates and the poor (section 4.3). As noted in the forward to this report, there were a number of limitations placed upon this study. The effect of these limitations greatly restricted the scope of inquiry which this report could address. The purpose of this study is to address process questions, i.e. is the process structured so that technological and value factors can be considered.

Section 4.1 focuses on the conflict between electric power and the environment. The building of electrical energy facilities has and continues to generate substantial conflict. The conflict centers on the competition between many important social interests. Two interests that this report is concerned with include (1) the need to provide an adequate, reliable supply of electricity and (2) the need to protect the public health and to prevent further environmental degradation. The competition between these two interests is over the utilization of scarce resources: air, water, and land. Because disputes arise over the competition for these resources (a competition that reflects differing values), dispute resolution mechanisms in the form of decision making authorities are necessary. The two principal decision making authorities in Minnesota which are charged with making decisions about energy facilities, are the Minnesota Energy Agency (MEA) under the Energy Agency Act and the Minnesota Environmental Quality Board (MEQB) under the Power Plant Siting Act (PPSA) and the Environmental Policy Act (MEPA).

An analysis of these decision making authorities reveal that the conflicts still exist. First the inherent conflict of values in the legislative policies existing prior to the establishment of the decision making authorities noted above is not resolved by these authorities. Second, the decisions that arise from the certificate of need process and the power plant siting process do not result in a balanced decision of the competing interests. Rather, the defacto policies

inherent in the site-by-site decisions, made pursuant to these laws, result in a random solution, if any, to the fundamental conflicts that exist between economic, environmental, and social considerations.

Recognizing that the planning process for the need, size, type, and location of electrical energy facilities rests almost completely with the utility and that the primary concern of the utility is to maintain an adequate and reliable supply of electricity, how are environmental values reflected in the process? Because the planning process of the utilities is made in secret, no one other than utility executives knows how environmental factors influence a utility's choice for size, type, and location in its applications to the MEA or MEQB. Environmental factors in the decision making processes of government are reflected through the environmental review procedures established under MEPA. These processes and procedures provide that the MEA make a decision on size and type with an environmental report (ER) as the mechanism to provide public health and environmental information for "planning" the decision. In addition, the location decision for a specific size and type of facility made by the MEQB also utilizes an environmental report (ER) as the mechanism to provide environmental information in "planning" its location decision.

An analysis of the process reveals that size, type, and location decisions are inseparable in anticipating the environmental and public health consequences of the decisions. Using a series of guidelines developed by the Rand Corporation for the California State Assembly on power plant siting, this report analyzed the Minnesota decision making mechanisms to determine if the present design for decision making and division of agency authority adequately coordinated the size, type and location decision. The analysis revealed that (1) functions which are naturally linked, such as size, type and location of power plants and lines, were not grouped together; (2) the existing decision making process failed to provide separate institutions for separate roles, such as balancing size, type, and location with the environmental consequences of the decisions; (3) the existing process failed

to take into account the natural tendencies of institutional behavior, such as a bias toward one side or the other; (4) many members of the public are upset with the results of the agencies decision making; and (5) the MEA does not have the proper balance of responsibilities to provide technical competence and impartiality in making its size and type decision.

The following recommendation is offered to overcome the present design flaw in agency decision making and the division of agency authority, which results in an adequately coordinated size, type, and location decision.

> 19* Size, type and location decisions should be made together in one agency. The Agency best suited to making this decision is the MEQB. The MEA should continue to issue a certificate of need based on factors that affect demand without regard to the size(s) and type(s) of facilities necessary to meet that demand.

Environmental factors are considered in an environmental review process created by the Minnesota Environmental Policy Act (MEPA). The purposes of MEPA are many and include an intention to alter the decision making processes of administrative agencies in two ways. First, the environmental impact statement (EIS) process is an information gathering procedure, an "environmental full disclosure law", to inform decision makers about how their policies affect the quality of the air, water, and land before they make their decision. Second, the EIS process is an action planning procedure, i.e., it permits an agency to make a rational choice from a set of alternatives with full information about the environmental consequences of both the preferred choice and the alternatives.

A retrospective review of the National Environmental Policy Act (NEPA) reveals that NEPA and the federal EIS procedure have improved coordination and effectiveness in decision making. Since NEPA and MEPA are nearly identical in terms of their policies, their disclosure requirements, the impact statement criteria, and in many other ways, an analysis of MEPA procedures for the environmental review of the size, type, and location decision was made. The analysis was based on a comparison of state procedures with those factors which were shown to improve

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* Recommendations numbers 1 through 18 are found in the summary of Chapter Three.

coordination and effectiveness in decision making for federal agencies. The analysis revealed that the existing environmental review process for determining the environmental consequences for power plants and lines defeated the purpose and intent of MEPA in six ways. In particular, the existing process fails to (1) consider all possible environmental effects at each stage of the process where decision making affects the environment; (2) provide adequate staff to independently review the environmental impact of the proposed action and its alternatives; (3) permit adequate consideration of other agency mandates in the decision making process for determining the size, type, and location of power plants and lines; (4) provide timely consideration of the environmental impact of the proposed action and its alternatives; (5) provide reasonable public review of environmental information documents necessary to meet the purposes of MEPA; and (6) provide adequate consideration of alternatives by excluding certain alternatives and by failing to provide equal treatment of the few alternatives considered with the proposed action.

The three key problems associated with the environmental review process established by the regulations promulgated pursuant to MEPA are the timing and scope of the EIS procedure and the secrecy associated with the planning process. The problems that have arisen with respect to EIS timing and scope can be traced to a common conceptual difficulty on the part of agency personnel. What is involved is not merely "bad faith" or administrative lethargy on the part of the agencies, but a deeply ingrained bureaucratic orientation to focus on goals, rather than on process. Process refers to the methodology or procedures of decision making. The secrecy problem is an inherent part of both utility and agency behavior, which is compounded by an administrative process that is not presently designed to foster openness, since it informs the public of a basically predetermined decision at the eleventh hour.

The EIS action planning mechanism created by MEPA is the procedure by which environmental concerns are made a part of agency decision making. The effective

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The EIS action planning mechanism created by MEPA is the procedure by which environmental concerns are made a part of agency decision making. The effective

utilization of MEPA EIS procedures by the MEQB can make significant strides toward achieving a more efficient facility siting determination. It must be noted that the EIS procedure is not the cause of duplication of laws and procedures. On the contrary, the EIS procedure can serve to reduce unnecessary overlap of environmental review as well as help agencies to make intelligent decisions.

Since the purpose and intent of MEPA and its associated EIS procedure is to provide an environmental full disclosure law and to improve agency decision making, the following recommendations are offered to accomplish these ends.

20. The environmental review process should be revised to reflect both the intent and spirit of the Minnesota Environmental Policy Act (MEPA). This should be accomplished by undertaking the following: (1) an environmental impact statement (EIS) should be mandatory for any power plant or transmission line which is subject to the jurisdiction of the Power Plant Siting Act (PPSA); (2) power plants and transmission lines should be considered together whenever possible; (3) the environmental reports required to be prepared at the certificate of need stage and the power plant siting and route designation stage should be abolished; (4) the environmental assessment worksheet required to be prepared at the power plant siting and route designation stage should also be abolished; (5) the public should be given 60 days to review and comment on the draft EIS; (6) all environmental impact statements (whether plants and lines or just lines) should be prepared by the MPCA: AND (7) the Minnesota Environmental Quality Board (MEQB) should receive additional funds to hire staff necessary to make an independent evaluation of an EIS prepared pursuant to MEPA.

21. The EIS process for power plants and transmission lines should be revised. First, a "planning EIS" should be prepared and finalized prior to the MEQB decision on size, type, and location. The "planning EIS" should review alternative sizes and types and study areas identified in the MEQB inventory of study areas program. The "planning EIS" would evaluate other planning activities including air quality, water quality, water resources, land use, economic, and transportation planning activities for the purpose of evaluating alternative sizes and types and the demand that they place in choosing a study area. All agencies which are involved in air, water, land, economic and transportation planning, should participate in the preparation of the draft EIS and submit written comments on the draft EIS. Upon completion of the final EIS, the MEQB should choose a type(s) and size(s) and a study area for the plant(s). Second, upon completion of the "planning EIS" and the size, type and study area decision, the MEQB would identify two

or more sites within the study area for the location of the plant(s). Once these sites have been identified, a "project EIS" would be undertaken to analyze in detail the environmental consequences of the MEQB size, type, and location decisions on the local environment. The "project EIS" would be completed and finalized by the MEQB prior to the issuance of any permit or construction authorization.

22. A generic EIS should be prepared and updated at periodic intervals on: (1) the environmental and economic consequences of alternative and conventional energy technologies of different sizes; (2) the relationship of these technologies to the end use energy requirements; (3) the impact of these technologies on the goals and plans of environmental protection in the long-run; (4) the impact of energy demand projections upon the depletion of natural resources; and (5) the impact of altering the tax structure, electric rates, rationing and retrofitting more energy efficient products, in short conservation, as an alternative to building more power plants and lines.

23. The timing of decision making processes should be significantly altered so that all interested parties to the decisions can rely on a specific time cable for making the decision. The following time frames offer definite limits on agency decisions, but within realistic time periods:

    (1) The certificate of need decision should remain at six months;
    (2) The draft planning EIS should be finished within one year;
    (3) The final planning EIS should be completed within 90 days after completion of the draft planning EIS:
    (4) The size(s), type(s), and study area(s) decision should be made within six months of the approval of the final planning EIS;
    (5) The draft project EIS should be completed within 450 days of the size(s), type(s), and study area(s) decision;
    (6) The final project EIS should be completed within 90 days after the completion of the draft project EIS;
    (7) The final location(s) decision should be made within six months of the approval of the final project EIS; and,
    (8) Permits issued by a single agency should be issued within one year of the date of application, but no applications should be accepted until after the completion and approval of the final project EIS and after the location decision(s) have been made by the MEQB.

24. Minnesota Statutes, Chapter 116C (The Environmental Quality Board Act) should be amended to clarify the Minnesota Environmental Quality Board's responsibilities including the responsibility to act as an advocate of environmental values in all proceedings in which the Board is involved.

Section 4.2 focused on the conservation of electrical energy. The need for increased energy conservation is based upon four principle arguments. First, the "energy crisis" is "not a temporary interruption of supply but a more fundamental change caused by our moving from an era of abundant energy to an era of scarce, expensive energy. . . " (Emphasis not added).[190] Second, while not offered as a total solution to the energy problem, conservation can (1) slow the growth rate of energy consumption; (2) stretch the remaining life of fossil fuels; (3) reduce the environmental impacts of energy production and use; (4) hold down the U. S. foreign trade deficit; and (5) help to keep the price of energy within peoples reach. Third, energy conservation is "a strategy [that] is not in competition with the present energy industries nor with the present efforts to increase the supply capacities of these industries. Rather it is a common-sense effort that offers substantial promise for helping to meet anticipated demand requirements, and for minimizing the economic and social costs resulting from unexpected supply problems."[191] Finally, the amount of energy that can be conserved without interfering with lifestyles is considerable.

There are many problems in the U. S. in attempting to achieve significant energy conservation. Energy consumption is dependent on (1) the energy efficiency of existing products and equipment that use energy, and (2) the way consumers operate or use the existing stock of products (traditional use patterns), altering energy consumption patterns requires changing one or both of these factors. Energy consuming products can be modified in two ways. In the short term these products can be made more efficient through retrofit. In the long run these products can be replaced with more energy efficient products. In both instances efficient energy products or retrofit devices must be available in sufficient quantities and consumers must choose these products over less efficient ones before energy consumption can be reduced. Altering traditional energy use patterns involves the way individuals, businesses, and others carry out their daily activities. These types of changes are difficult because of the sheer number of consumers that need to be affected and because the change

in daily activities may, from a consumer viewpoint, be in a less convenient fashion. The change in consumer behavior required is compounded because "the growing demand for energy as a matter of either public policy or private practice runs contrary to the trend of the last several decades."[192]

There are a number of policy options available to encourage the conservation of electricity. First, policies can be designed to elicit voluntary responses from consumers by creating an awareness of the benefits of energy conservation, both in terms of dollar and energy savings. Specific policies would center around consumer education, appliance labeling, and providing financial incentive for the development and use of energy saving devices. Second, policies can be designed which indirectly affect the market. This involves either raising the effective price of energy and/or lowering the real cost of implementing energy conservation measures, such as more energy efficient products. For example, specific programs, which provide financial incentives to conserve energy, include tax credits, grants, low interest loans or loan guarantees to businesses or individuals, and other tax relief for users who install more efficient equipment or manufacturers who make such equipment can be enacted. Financial disincentives can also be enacted through the taxing power by providing taxes on the energy, taxes on the energy user (such as a sales tax), or taxes on those who use disproportionate quantities of energy (i.e., taxes based on the estimated average annual electricity use of the equipment, elimination of promotional rebates to builders and users). Third, policies can be designed which directly affect the market, which involves governmental regulation or restriction of energy use for energy-using products. These are basically proscriptive policies which include changes in the building code; bans on the manufacture, sale, or installation of certain types of equipment; restrictions on wattages or minimum efficiency of electrical equipment or appliances; restrictions on new building permits; and explicit rationing of electricity and other forms of energy.

Finally, policies can be designed which change the user cost of electricity, either through taxes as noted above or through changes in the overall price mechanism, i.e. changing the rate schedule.

The question that this section (4.2) addresses is whether the process permits the consideration of these policy options. A review of the statutes, relating to conservation (see Chapter Two, section 2.2A), shows the following. (1) energy conservation is the policy of the State of Minnespta; (2) the primary function of the MEA is to promote and elicit voluntary energy conservation functions from consumers and to enforce specific, statutory energy conservation measures; and (3) the PSC must, under the National Energy Act of 1978, in particular sections 111 and 113 of the Public Utilities Regulatory Policies Act, hold hearings to determine the appropriateness of implementing energy conservation measures which may affect the rate schedules.

The present conservation policies do not generally address direct or indirect market approaches, to energy conservation. These approaches include little in the way of a taxing policy, a tax relief policy or tax credits, loans, etc. for electric energy conservation. They do not restrict the use of energy inefficient equipment or provide specific authority for the agencies to restrict such equipment, (require retrofit or minimum efficiency rating other than air conditioning and lighting) nor do they address the rationing of electrical energy. Since many of these issues were addressed in the Final Report of the House Select Committee on Energy and the MEQC Energy Policy Task Force Report, this report recommends that the Legislature pay close attention to the recommendations of those reports (see appendix II and III, respectively).

Section 4.3 focuses on electric rates and the poor. It is generally recognized that the more money people have, the more energy they use. However, studies show that the poor spend a greater percentage of their income on energy than the middle or upper income people. The Ford Foundation report A Time to Choose

found that "the poor spend almost 15 percent of their household income on energy while the high consumption of fuel by the rich typically accounts for only 4 percent of their incomes. Any major price increases will thus cause hardship to poor families, since their energy use levels do not include a margin of extra amentities easily done without."[193]

It has been recommended both nationally and in Minnesota that the effects of increasing energy costs not unduly burden the poor and others on fixed incomes. Hazel Rollins, Acting Deputy Administrator of the Economic Regulatory Administration of the Department of Energy, noted that "no geographic, ethnic, or income group should have to bear an unfair share of the total burden, and none should reap undue benefits from our energy problems. It is particularly important that we protect the elderly, the poor, and those on fixed income from disproportionately adverse effects on their incomes."[194] In addition, the MEA has offered as one of their energy policy recommendations that "appropriate legislation to provide assistance for consumers most impacted by higher electricity costs" be undertaken.[195]

One proposal that has been offered to alleviate the impact of rising electric rates on the poor, the elderly, and others on fixed incomes is the establishment of "lifeline" rates as a component of the rate structure. While there is no rigid definition of lifeline, the purpose is to structure the rates in such a way that residential users pay a reduced price for relatively small quantities of electricity (for example, the first 300 to 500 kilowatt hours used per month) necessary for essential needs. The underlying premise behind the lifeline concept is to reduce the price of electricity to residential users who consume small quantities.

A lifeline rate structure offers 3 apparent advantages. First, it provides rate relief to residential users who use only small amounts of electricity. These users are thought to be the poor, the elderly and others on fixed incomes.

Second, lifeline rates promote conservation by providing an economic incentive to hold down consumption. Finally, rates are easy to understand, can be placed in effect without much delay, and are politically and administratively advantagous to the government because they require no new tax revenues to administer "the program." As a result of these multiple advantages, the lifeline rate concept has taken different forms in the several states which have implemented them. In California, for example, lifeline rates have generated strong support as a method of slowing down growth in electricity consumption.

Since there exists a general policy within Minnesota to help the poor (M.S., Chapter 261), the rising costs of electric rates should not unduly burden the poor, the elderly, and others on fixed incomes. Because the data shows that people are reluctant to use stamps, whether food or energy stamps, and because energy stamps to not encourage conservation, a program that provides relief for the poor as well as encourages that conservation should be adopted.

25. It should be the policy of Minnesota to protect the poor, the elderly, and others on fixed incomes from the rising cost of electrical energy. Therefore, the Public Service Commission should begin hearings to enact a "lifeline" rate which benefits the poor and encourages conservation. The lifeline rate structure should reflect all factors which affect the essential uses of electricity.

CHAPTER FIVE

EMINENT DOMAIN AND POWER PLANT AND LINE SITING

It is apparent that there is a crisis attitude today with regard to energy problems. This is indicated by the proliferation of new agencies, the enactment of new laws which regulate energy use and development, and by the proposal for new procedures, such as the Energy Mobilization Board (EMB). The EMB develops priorities for energy projects and goals, and the time during which federal, state, and local governments can make decisions (a process that could result in de facto denial of due process and substantive consideration of the proposed project).

The decisions that result from this crisis attitude can seriously affect land use. Studies on the future of land use in the United States report that our intensive use of land is expected to nearly double by the year 2000. The equivalent of every public and private facility including schools, hospitals, shopping centers, power plants, pipelines, homes, and highways will be duplicated to accommodate projected population increases in the next twenty to thirty years. Accompanying this type of resource use pressure will be hotly contested debates over governmental powers to regulate land use and the taking of land for public purposes. Recently, extensive debates have occurred in Minnesota over the regulation and taking of land (particularly agricultural land) for power plants, power lines, pipelines, streets and highways, the "domed stadium", preserving "wild and scenic" rivers, protecting the BWCA, and many more. These debates, which have occurred in the courts, the legislature, before government agencies, and in many other public forums, will increase in the future.

Traditionally, the control of land use has been a local function since the landmark case of Village of Euclid v. Ambler Realty Co. in 1926.[1] There are a number of advantages to local control in land use. The local government, not only considers itself capable of making decisions on such matters; it also envisions local land use regulation as a method of preserving property values and maintaining

the "tone" of the community.[2] In addition, local governments are closest to the problem, can make decisions quickly, and are responsive to the concerns of the local voter.[3]

The desirability of local control over land use decisions is under serious question. Each local community, being concerned with its own projection, has tended to zone its land to avoid becoming a dump for undesirable uses.[4] This has resulted in urban sprawl, exclusionary zoning, and unplanned development.[5] Regional problems such as pollution, inadequate housing, and improper management of the environment have been attacked haphazardly and often in deference to wholly local interests. This has resulted in purely local welfare becoming the dominant concern. In addition, local governments, which are dependent upon property taxes for support, find it difficult to resist the desires of developers even though important social and aesthetic interests are sacrificed.[6] One commentator has suggested that the problem is not so much that the land use decision making is local, but "the flaw is that the criteria for decision making are exclusively local, even when the interests are far more comprehensive."[7]

Recently, the Minnesota Legislature has enacted new laws to overcome the parochialism of local concerns by enacting state land use control authorities. Some of these include the Flood Plain Management Act, Regulation of Shoreland Development, the Critical Areas Act, the Minnesota Wild and Scenic Rivers Act, and the Power Plant Siting Act. In each instance the state either regulates the use of the land through it police power or permits the "taking" of the land to meet a "public use" through the power of eminent domain. This chapter focuses on the taking of land under the power of eminent domain by addressing the controversy about the condemnation or eminent domain process used to take land.

5.1 Government Regulation of Private Property: Eminent Domain

The eminent domain process is the result of a theory of law. The field of property has often been considered as the pre-eminent testing ground for theories of law. "Whether or not possession is nine-tenths of the law, it certainly

presents more than nine-tenths of the legal problems which our age calls for illumination."[8] The greatest obstacle to examining the subject of property is the high emotional overtones that cluster about the word. Because of the historical differences in the meaning of the word "property" and the importance of grasping practical significance of theories of property inherent in the "police power versus condemnation" issue, this section will focus on (1) the philosophical notions involving government control over the use of property; and (2) the Minnesota process used in condemnation or eminent domain procedures.

A. Perspectives on Government Power over Land Use

The conflicts that have been occurring over real property (as opposed to chattel) in Minnesota are not unique to this time or place. Inherent in any conflict over property is some concept about the relationship of land to human beings. The range of opinion on this issue is great. For example, the Massachusetts Bill of Rights (1980) held that "all men are born free and equal and have certain natural, essential and unalienable rights; among which may be reckoned the right. . . of acquiring, possessing, and protecting property."[9] It has also been held that the fifth amendment to the U.S. Constitution protects the right "to acquire, use and dispose of" property.[10] Ambrose Bierce, noted writer and journalist, provided his definition of land shortly after the turn of the century:[11]

> LAND,n. A part of the earth's surface, considered as property. The theory that land is property subject to private ownership and control is the foundation of modern society, and is eminently worthy of the superstructure. Carried to its logical conclusion, it means that some have the right to prevent others from living; for the right to own implies the right to exclusively occupy; and in fact laws of trespass are enacted wherever property in land is recognized. It follows that if the whole area of terra firma is owned by A, B and C, there will be no place for D, E, F and G to be born, or born as trespassers, to exist.

The classical arguments for and against the recognition of private property as a social institution grew out of the struggle between those who sought to

justify and preserve exclusive patterns of property ownership from those who sought to change those patterns. In order to understand the conflicts over property in Minnesota, it is necessary to have a clear idea of "property." Jeremy Betham in his Theory of Legislation notes that there is no such thing as "natural property," but that notions of property are entirely the work of law:[12]

> Property is nothing but a basis of expectation; the expectation of deriving certain advantages from a thing which we are said to possess in consequence of the relation in which we stand towards it.
>
> There is no image, no painting, no visible trait, which can express the relation that constitutes property. It is not material, it is metaphysical; it is a mere conception of the mind.
>
> The idea of property consists in an established expectation; in the persuasion of being able to draw such or such an advantage from the thing possessed, according to the nature of the case. Now this expectation, this persuasion, can only be the work of law. I cannot count upon the enjoyment of that which guarantees it to me. It is law alone which permits me to forget my natural weakness. It is only through the protection of law that I am able to inclose a field, and to give myself up to its cultivation with the sure though distant hope of harvest.
>
> Property and law are born together, and die together. Before laws were made there was no property; take away laws, and property cases.

Morrie Cohen's famous essay on Property and Sovereignty recognized that the traditional theory of rights in this country was molded by the seventeenth century struggles against limitation and restrictions of individual enterprise. At that time in history, the restrictions in the interest of special privilege were fortified by the notion of the divine and therefore absolute rights of kings. As is natural in all revolutions, the opponents met these absolute rights of kings with absolute denials of such rights. As a result, the theory of natural rights popularized by John Locke took an individual form and a negative form such that men have "inalienable" rights and the state must never interfere with private property. The backlash to the existing order in that time failed to recognize that the existence of private property not only came from the state, but the state had an obligation to interfere in order that individual rights could be effective and not degenerate into public nuisances. To permit anyone to do absolutely what he wants with property in

creating noise, smells, dangers of fire, or engage in functions on their property which render neighboring property worthless would make property in general valueless.[13]

It is also recognized that "property" is a legal term that denotes rights and not things. In the world of nature apart from organized society, there are things, but clearly no property rights.[14] As the American Law Institute has noted in its Restatement of Property, "a right. . . is a legally enforceable claim of one person against another, that the other shall do a given act or not do a given act."[15]

Ownership as a right is also undercut by a number of other considerations. First, there is a "natural" use of the land, i.e., ignoring the presence of man and the impact of his decisions, there is a condition of the earth's surface which may be described as natural at any point in time, even while recognizing that the biosphere is an evolving system.[16] Second, the conventional belief that land may be "owned" as a "right" is weakened by the recognition that in many pastoral and incipient food producing societies there is a belief that no man made the land and therefore no man may "own" the land. Third, a consideration which has persisted throughout the evolution of the law of property involves the contrast of the transiency of man in time and space against the relative permanency of the land. This consideration is the basis for the distinction between real and personal (chattel) property. From this consideration follows the principal of stewardship in which the possession or ownership of land is viewed as a trust with attendant obligations to future as well as present generations. A final consideration which has no historical tradition is that the ownership concept in the United States developed under relatively constant social conditions entailing no massive rapid changes in land value or usage (though this is changing in recent times).[17] In sum, all of these considerations as well as theories of law, which to a great extent recognize these considerations, explain why the state has an interest in the use of land and the basis upon which the state

interferes in such use.

What powers and what limitations on the use of power does the state have in affecting the use of land? No matter what level of government seeks to control land use by direct or indirect means, the control must be based on one or more of the following powers: commerce power, power to tax and spend, power over federal property, police power (including control of public nuisances), and eminent domain. The federal government exercises only those powers granted by the constitution. Conversely, state governments retain all other governmental powers, except those they delegate to local levels of government such as counties, municipalities, and special districts via the state constitution or enabling legislation.

The two most important powers from the perspective of state control are the police power and the power of eminent domain. Indeed, much of the litigation that takes place over real property is a result of the choice of power (police or eminent domain) that the state exercised in a given instance. The issue in these cases is whether a "taking" has occurred which requires compensation by the state or others.

The police power permits the state to regulate for the comfort, health, safety, and welfare of its citizens. The U.S. Supreme Court has ruled that the states' police powers "are nothing more or less than the powers of government inherent in every sovereign to the extent of its dominions."[18] The police power is one of the least limitable of governmental powers and, in fact, is limited only by the provisions in the federal and state constitution.[19] At the same time, the proper exercise of police power must meet certain criteria. First, the power must be exercised for a proper "object," i.e., that the end sought to be achieved must be one that the "law deems sufficient to justify protection [of]. . . public health, safety, morals and welfare."[20] This list expands as one enumerates the items listed in the category of welfare such as peace, order, economic well being, convenience, comfort, prosperity, and financial security of the community.[21]

Second, the police power must bear a reasonable relationship to the attainment of the proper object.[22] The courts have given legislators a wide latitude in this area, and the judicial test is "whether the legislative body could have determined upon any reasonable basis that the legislation is necessary or desirable for its intended purpose."[23] Third, the specific application of the police power regulation must not be arbitrary or unreasonable:[24]

> The most commonly accepted view is that "reasonableness" is determined on the basis of a balancing test: If the "good" to be achieved by the regulation justifies the burden placed upon the person whose activity or property is being regulated, then the enactment is a valid exercise of the police power.

In the area of land use regulation, reasonableness "must exist in the way that subjects are classified for regulatory treatment, and in the way a regulatory measure seeks to accomplish its objectives. Satisfying these requirements, the police power may be used without constitutional objections."[25] Government control of private land use primarily deals with the control of land by private developers. The three most important control techniques used by government are the zoning ordinance (allocates the use of land to districts), the sub-division control ordinance (imposes minimum physical standards on the division of land for urban uses), and the official map (a prohibitary device which excludes building and structures from the right-of-way of streets, highways, park sites, etc. proposed for public acquisition).[26] These techniques have been upheld by the Supreme Court in Village of Euclid v. Ambler Realty Co., where the court found land use regulation to be an appropriate means of obtaining police power objects.[27] Courts have since allowed states or their political subdivisions to exercise the police power to (1) restrict such items as billboards in residential districts; (2) provide for open space zoning under subdivision controls; (3) require "harmonious architectural appeal" as a criterion for building permits; (4) preserving open space by restricting land to agricultural and residential uses only; and (5) allow the harmful impact to justify land use regulation extend beyond the natural environment, i.e., permit limits on the use of land for purely

economic reasons.[28]

Eminent domain, like the police power, is inherent in the sovereignty of the state and requires no constitutional recognition.[29] The U.S. Supreme Court has ruled that "the right of eminent domain, that is, the right to take private property for public uses, appertains to every independent government. It requires no constitution recognition; it is an attribute of sovereignty."[30] Constitutional provisions concerning eminent domain limit the power of government to exercise the right, but do not create the power.[31] Even so, the court has ruled that the fifth amendment implies the grant of the power of eminent domain to government.[32]

The right of the sovereign to condemn private property dates back at least to the Roman empire.[33] The term eminent domain is reported to have originated with Grotius in his writing De Jure Belli at Pacis (The Law of War and Peace) (1625), where he affirmed the right of government to take private property for reasons of extreme necessity or public utility upon the payment of compensation.[34] The English precedents for eminent domain are based on two different sets of powers. First, the king had power to make use of, but not take ownership of, private land in the areas of his perogative (navigation, foreign affairs, defense, law enforcement, etc.) without payment of compensation. Second, the Parliament had the power of eminent domain to take private property upon the payment of compensation.[35] This requirement has been customarily added to statutes since 1514.[36] In the colonies there were general condemnation statutes for road construction with compensation, but not for unimproved roads on the theory that the improvement increased the total property value.[37]

The power of eminent domain is invariably restricted by constitutional provisions. Many constitutions require that private property shall not be taken for a "public use" without "just compensation," (e.g. U.S. Constitution, Amendment V; Utah Constitution, Article 1, §22; Michigan Constitution, Article 10, §2; New York Constitution, Article 1, §7(a); and California Constitution, Article 1,

§14). While these provisions do not explicitly state that private property can only be taken for a public use, the restriction is implicit. Several states' constitutions explicitly bar the taking of private property for private use (e.g., Alabama Constitution, Article 1, §23; Arizona Constitution, Article 2, §17; and Colorado Constitution, Article 2, §14). In addition to the constitutional requirement of public use, there is a corollary requirement that the use be necessary. Finally, the taking of private property for public use must satisfy the "due process" requirements under the fifth and fourteenth amendments to the U.S. Constitution. The "public use" requirement is the issue most under contention and, therefore, requires further discussion.

The meaning of the term "public use" has defied any single definition. The term, by nature, is undefinable due to protean characteristic, i.e., "the notion what is public use changes from time to time, [and] public use expands with the new needs created by civilization. . ."[38] Furthermore, the "term public use is flexible and cannot be limited to the public use known at the time of the forming of the constitution."[39] The meaning of public use throughout the nation's history has often been confusing:[40]

> No question has ever been submitted to the courts upon which there is greater variety and conflict of reasoning and results then that presented as to the meaning of the words "public use". . .The reasoning is in many cases unsatisfactory as the results have been uncertain. The beaten path of precedent to which courts, when in doubt, seek refuge, here furnishes no safe guide. . .The authorities are so diverse and conflicting, that no matter which road the court may take it will be sustained, and opposed, by about an equal number of the decided cases. In this dilemma, the meaning must, in every case, be determined by the common sense of each individual judge who has the power of deciding it.

However, enough characteristics of public use have emerged from the case law to provide some understanding of the doctrine. "Perhaps the fundamental maxim concerning public use is that, even though it cannot be precisely defined, it can still be recognized--'I know it when I see it'."[41]

The confusion around the definition of "public use" is also traceable to the construction on the components of the phrase. How many people make up a public? Does "use" mean "employment" or "advantage"?[42] The precise meaning of "public use" has varied over time and according to the type of taking involved. The historical case development holds that there are two basic opposing views of the meaning of "public use." The older, narrower test (now a minority view) held that "public use" means "use by the public."[43] Under this test a use cannot be declared to be a "public use" unless the public will enjoy a right to the actual use of the facility or service for which the land is taken, i.e., the public must be entitled to actual use.[44] The newer approach associates the phrase "public use" with "public benefit."[45] "Public benefit" is defined as anything which offers a public advantage or furthers a public interest.[46] Under this view the public is not entitled to actual use, but only that the use must promote the public interest and provide a public service. "Public use" is now defined so broadly that it includes any use "conducive to community prosperity."[47] This does not mean that the entire community or even a considerable portion thereof directly participate in or enjoy the "public benefit" for a use to constitute a "public use."[48]

As noted earlier, eminent domain is an inherent power of sovereignty of the state. Because of the constitutional limitations discussed above, it may not be exercised without a legislative act authorizing its application.[49] Consequently, the determination of public use is a legislative and judicial function. Generally, the legislature delegates the power of eminent domain to a governmental agency or a private enterprise.[50] The delegation of this power must still meet two constitutional criteria. First, the delegating by the legislature must constitutionally grant the power of eminent domain for a public use. Second, the actual application of the statutory delegation must constitutionally serve a public use. The courts are the ultimate arbitrator in both

these questions. The courts give great weight to legislative judgment in deciding the existence of public use. "Once a legislature has authorized the exercise of the power of eminent domain for a particular use, the courts view the legislative action as an implicit declaration that the designated be considered a public use. Accordingly, a legislative declaration of public use will be presumed reasonable, and consequently valid, unless facts showing otherwise can be demonstrated. Thus, the question of determining public use is a legislative perogative."[51]

Does the taking of private property for siting power plants and high voltage transmission lines (HVTL) constitute a public use? The recognition that power plants and lines serve a public use is obviously connected with the inherent value of electricity itself. Since electricity possesses an inherent capacity to serve domestic uses, it has and continues to be considered a public use unless produced primarily to private rather than public use. Since power plants and lines are the sole means of providing electricity to consumers, they have generally been considered a public use. A number of cases have addressed various aspects of the public use issue as it relates to power plants and lines. The cases have determined that (1) each member of the public need not be actually benefited by the construction of a plant or line for it to serve a public use, provided that each member of the public shares an equal right with all others to use the electricity; (2) the fact that one patron will be served by the facility does not destroy its public nature; (3) the transmission of electricity by a wholesaler for ultimate distribution constitutes a public use; (4) electricity supplied to insure the reliability of a power system, even though it might not supply any customers (within a state) directly, still constitutes a public use; (5) public use exists where evidence that reserve emergency power supplies would be increased by the proposed facility, that the existing electrical distribution system would be stabilized, or that options existed that could provide electric power to a substantial number of residences; (6) property may be condemned prior

to the granting of certificates of necessity by state agencies; (7) land may be condemned even though other property may be more suitable; and (8) utilities may enter private property to conduct tests prior to the initiation of condemnation proceedings.[52] In sum, the taking of private property to site power plants and lines appears to constitute a legitimate public use.

The issue of whether power plants and lines constitute a legitimate public use was settled in a 1979 Minnesota Supreme Court Case. It had been argued that the Minnesota Energy Agency Act (M.S., Chapter 116H) removed the question of necessity from the eminent domain proceedings of M.S., Chapter 117. "By this Act, the legislature has removed from the condemnation court the power to decide whether the subject facility is needed and has transferred that power to a state administrative agency."[53] On September 28, 1979, the Minnesota Supreme Court upheld a trial court's determination that the decision of the MEA and the MEQB had conclusively decided the threshold question of whether the condemnation was necessary within the meaning of M.S. §117.075:[54]

> Although Minnesota Stat. Ch. 117 (1978) has not been amended to reflect the relationship between a condemnation proceeding and decision of MEA and MEQC, it would be unreasonable to conclude that the determinations of these agencies, made pursuant to extensive legislation, see, e.g., Minn. Stat. Ch. 116C, 116D, and 116H (1978), were a mere guide to a district court's ruling on necessity under §117.075. A contrary conclusion would allow a single condemnation court in a county along the transmission line to effectively overrule the comprehensive findings of MEA and MEQC, who presumably have specialized expertise in the area. Such an absurd result is presumed to be unintended by the legislature, and thus should be avoided in construing the pertinent statutory provisions. Minn. Stat. §645.17(1) (1978).

B. Minnesota Eminent Domain Law

Minnesota has extended the power of eminent domain to more than state agencies and political subdivisions. The power has been extended to railroads, mining companies, public utilities, and others. As a result, eminent domain is a widely used power affecting land use and the rights and values of large numbers of people. In addition, the eminent domain procedures differ substantially from procedures for other types of civil conflicts.

Table 5-1 summarizes eminent domain law in Minnesota as it relates to electric utilities. The principal provisions of the eminent domain power are embodied in Minnesota Statutes, Chapter 117, but there are many other provisions of eminent domain law scattered throughout the Minnesota code. The statutes provide that electric utilities, whether investor, cooperative, or municipal, have the right of eminent domain. In eminent domain or condemnation proceedings, the utilities must follow the provisions of M.S., Chapter 117.

The eminent domain process works as follows. Twenty days prior to the submission of a petition to the district court, the petitioner, (the state, corporation or individual who is "taking" the land from the property "owner") notifies the owner and the occupant of the land that all or part of the owner's land is being condemned. Upon petition to the district court, the judge determines whether adequate notice was given and holds a hearing of all affected parties to determine if the taking is necessary. If the judge finds the taking was necessary, the judge appoints three commissioners and two alternates "to ascertain and report the amount of damages that will be sustained by the owners" as a result of the taking. The commissioners determine the amount of damages to be paid to the owner and occupant after detailed examination (viewing) of the premises to be condemned and testimony has taken place. The petitioner is required to acquire an interest in any improvements affected by the taking.[55] The commissioners can add to the award appraiser fees incurred on the part of the owner or occupant up to $300.00. After notice to the petitioner, the commissioners generally must file their report within 90 days of their appointment with the district court. Within 10 days after filing, the petitioner must notify each owner and occupant of the filing of the report and the amount of the award. The owner may elect to require a petitioner (if a utility) to acquire all or part of the land he owns contigious with the right-of-way for a HVTL or boundary of a site. However, the utility must divest itself of all such lands used for farming or capable of being so used within five years or the land will be sold at public

TABLE 5-1

SUMMARY OF EMINENT DOMAIN LAW

PART & SECTION	PURPOSE
Part I	EMINENT DOMAIN - GENERAL
M.S. § 117.011	RIGHT OF EMINENT DOMAIN. All bodies, public or private, who have the right of eminent domain, when exercising such right, shall do so in the manner prescribed by this chapter, even though a different procedure may be provided by charter provisions, ordinance, or statute, but nothing herein shall apply to the taking of property under laws relating to drainage when such laws themselves expressly provide for such taking and specifically prescribe the procedure connected therewith.
§ 117.016	The state or any of its agencies or political subdivisions may jointly acquire land for public purposes by eminent domain.
§ 117.025	DEFINITIONS. Subdivision 1. Words, terms, and phrases. Unless the language or context clearly indicates that a different meaning is intended, the words, terms, and phrases defined in this section have the meanings given them. Subd. 2. Taking. Taking and all words and phrases of like import include every interference, under the right of eminent domain, with the possession, enjoyment, or value of private property. Subd. 3. Owner. "Owner" includes all persons interested in such property as proprietors, tenants, life estate holders, encumbrancers, or otherwise.
§ 117.035	Property acquired by eminent domain shall be taken in the name of the legal entity or person authorized by law to exercise the right of eminent domain, i.e., the state, or corporation, or individual name.
§ 117.041	ENTRY FOR SURVEYS. For the purpose of making surveys and examinations relative to any proceedings under this chapter, it shall be lawful to enter upon any land, doing no unnecessary damage.
§ 117.042	POSSESSION. Whenever the petitioner shall require title and possession of all or part of the owner's property prior to the filing of an award by the court appointed commissioners, the petitioner shall, at least 90 days prior to the date on which possession is to be taken, notify the owner of the intent to possess by notice served by certified mail and before taking title and possession shall pay to the owner or deposit with the court an amount equal to petitioner's approved appraisal of value. If it is deemed necessary to deposit the above amount with the court the petitioner may apply to the court for an order transferring title and possession of the property or properties involved from the owner to the petitioner. In all other cases, petitioner has the right to the title and possession after the filing of the award by the court appointed commissioners as follows: (a) if appeal is waived by the parties upon payment of the award; (b) if appeal is not waived by the parties upon payment or deposit of three-fourths of the award. The amount deposited shall be deposited by the clerk of court in an interest bearing account no later than the business day next following the day on which the amount was deposited with the court. All interest credited to the amount deposited from the date of deposit shall be paid to the ultimate recipient of the amount deposited.

TABLE 5-1
(continued)

PART & SECTION	PURPOSE
	Nothing in this section shall limit rights granted in section 117.155.
§ 117.045	Any person who successfully petitions an authority to initiate eminent domain proceedings shall be entitled to reimbursement of reasonable costs and expenses (attorney, appraisal, and engineering fees) incurred in bringing the action in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970 (84 Stat. 1894 (1971)).
§ 117.055	In all eminent domain proceedings, the petitioner shall give both the owner and occupant of the land 20 days notice prior to the presentation to the district court for the appointment of commissioners (who will appraise the damages occasioned by the taking), and upon written demand the petition shall furnish a right-of-way map or plot of all that part of the land to be taken to the owner within 10 days.
§ 117.075	COURT TO APPOINT COMMISSIONERS. Upon proof being filed of the service of such notice, the court, at the time and place therein fixed or to which the hearing may be adjourned, shall hear all competent evidence offered for or against the granting of the petition, regulating the order of proof as it may deem best. If the proposed taking shall appear to be necessary and such as is authorized by law, the court by an order shall appoint three disinterested commissioners, and at least two alternates, residents of the county, to ascertain and report the amount of damages that will be sustained by the several owners on account of such taking. The order shall fix the time and place of the first meeting of the three commissioners and prescribe their compensation. It may, in the discretion of the court, limit the title or easement to be acquired by the petitioner by defining the rights and privileges which the owner of any of the lands may exercise therein in subordination to the public uses to which it is appropriated. In case any of the commissioners fail to act, the court without further notice may appoint another in his place.
§ 117.085	COMMISSIONERS, POWERS, DUTIES. The commissioners, having been duly sworn and qualified according to law, shall meet as directed by the order of appointment and hear the allegations and proofs of all persons interested touching the matters to them committed. They may adjourn from time to time and from place to place within the county, giving oral notice to those present of the time and place of their next meeting. All testimony taken by them shall be given publicly, under oath, and in their presence. They shall view the premises, and any of them may subpoena witnesses, which shall be served as subpoenas in civil actions are served, and at the cost of the parties applying therefor. If deemed necessary, they may require the petitioner or owner to furnish for their use maps, plats and other information which the petitioner or owner may have showing the nature, character and extent of the proposed undertaking and the situation of lands desired therefor. In proper cases they may reserve to the owner a right of way or other privilege in or over the land taken, or attach reasonable conditions to such taking in addition to the damages given or they may make an alternative award, conditioned upon the granting or withholding of the right specified. Without unreasonable delay they shall make a separate assessment and award of the damages which in their judgment will result to each of the owners of the land by reason of such taking and report the same to the court. The commissioners, in all such proceedings, may in their discretion allow and show separately in addition to the award of damages, reasonable appraisal fees not to exceed a total of $300. Upon request

PART & SECTION	PURPOSE
	of an owner the commissioners shall show in their report the amount of the award of damages which is to reimburse the owner and tenant or lessee for the value of the land taken, and the amount of the award of damages, if any, which is to reimburse the owner and tenant or lessee for damages to the remainder involved, whether or not described in the petition. The amounts awarded to each person shall also be shown separately.
§ 117.086	Noncontiguous tracts of land may be considered as a unit for the purpose of assessing damages, whenever the taking of one tract in fact damages the other tract. Specifies procedures for appeal.
§ 117.087	The report of the commission is due within 90 days unless the district judge's order prescribes otherwise or provides an extension.
§ 117.115	REPORT, NOTICE. Subdivision 1. The commissioners shall, after notice to the petitioner, file their report with the clerk of district court and the petitioner shall pay the commissioners their fees and disbursements. The court shall determine any dispute concerning the fees and disbursements. Subd. 2. Within ten days after the date of the filing of the report of commissioners, the petitioner shall notify each respondent and his attorney by mail of the filing of the report of commissioners setting forth the date of filing of the report, the amount of the award, and all the terms and conditions thereof as the same pertain to such respondent. Such notification shall be addressed to the last known post office address of each respondent and his attorney.
§ 117.135	TAXES AND ASSESSMENTS. Subdivision 1. In all eminent domain proceedings taxes and assessments imposed upon the acquired property shall be compensated for as provided by section 272.68, except the state transportation department, as the acquiring authority, shall pay all taxes, including all unpaid special assessments and future installments thereof, as provided in subdivision 2.
§ 117.145	APPEAL. At any time within 40 days from the date that the report has been filed, any party to the proceedings may appeal to the district court from any award of damages embraced in the report, or from any omission to award damages, by filing with the clerk a notice of such appeal and mailing a copy of such notice to all parties of record having an interest in lands described in the appeal. Within ten days of the date of mailing any other party may appeal. The notice shall specify the particular award or failure to award appealed from, the nature and amount of the claim, the land to which it relates, and grounds of the appeal, and if applicable, the notice required in section 117.086.
§ 117.155	Partial payments upon appeal shall be made upon demand.
§ 117.165	All owners and petitions are entitled to a jury trial where an appeal is taken and must disclose the appraisal witness and the amount of appraised damages.
§ 117.185	Judgment or appeal shall be binding.
§ 117.215	ESTATE ACQUIRED. In all cases for the condemnation of property for public use, the right, interest, or estate in the property proposed to be taken, if greater than an easement, shall be specifically described in the proceedings, and, if the right, interest, or estate so described shall be a fee simple absolute, the fee simple absolute shall be an estate without any right of reversion under any circumstances.

PART & SECTION	PURPOSE
§ 117.225	EASEMENT DISCHARGE. Whenever the underlying fee owner claims that an easement acquired by condemnation is not being used for the purposes for which it was acquired, he may apply to the district court of the county in which the land is situated for an order discharging the easement, upon such terms as are just and equitable. Due notice of said application shall be given to all interested parties. Provided, however, this section shall not apply to easements acquired by condemnation by a public service corporation now or hereafter doing business in the state of Minnesota.
§ 117.231	Private property acquired for public purposes shall be made in lump sum or in four annual payments without interest.
§ 117.50-.56	Provisions relace to relocation assistance.
PART II	EMINENT DOMAIN - ELECTRIC UTILITIES
M.S. § 300.04	Public service corporations may acquire by aminent domain private property necessary and convenient for the transaction of public business.
§ 300.045	EASEMENTS OVER PRIVATE PROPERTY, LIMITATIONS. Public service corporations, including pipeline companies, when acquiring easements over private property by purchase, gift or eminent domain proceedings, shall definitely and specifically describe the easement being acquired, and shall not acquire an easement greater than the minimum necessary for the safe conduct of their business; provided that the foregoing shall not apply to a temporary easement for construction.
§ 308.05	Cooperative associations engaged in the electrical, heat, light, power business shall have the power and authority of eminent domain.
§ 453.56	Municipal Power Agencies (MPA) may acquire property necessary to carry out its functions by condemnation and the exercise of the power of eminent domain.
§ 216B.47	Nothing in the Minnesota Public Utilities Act (M.S., Chapter 216B) precludes a municipality from acquiring the property of a public utility whether investor or cooperative by eminent domain.
§ 222.36	Any public service corporation shall have the right to obtain by eminent domain any land over, through, or across the land or easement of railroad company upon just compensation provided the right shall at all times be subject to the right of the railway company to use its right-of-way for railway purposes.
PART III	EMINENT DOMAIN - MISCELLANEOUS
M.S. § 16.88	The commissioner of administration has the authority to grant an easement or permit over, under, or across any land owned by the state, other than land owned by the DNR for the purpose of constructing electric power lines. Specifies procedures.
§ 84.415	The commissioner of natural resources shall promulgate regulations continuing standards and criteria governing the role of licenses permitting the passage of utilities over public lands and water. Specifies conditions for passage, procedures, and fees.

TABLE 5-1
(continued)

PART & SECTION	PURPOSE
§ 1166.63	EMINENT DOMAIN POWERS: RIGHT OF CONDEMNATION. Subdivision 1. Nothing in this section shall invalidate the right of eminent domain vested in utilities by statute or common law existing as of May 24, 1973, except to the extent modified herein. The right of eminent domain shall continue to exist for utilities and may be used according to law to accomplish any of the purposes and objectives of sections 116C.51 to 116C.69, including acquisition of the right to utilize existing high voltage transmission facilities which are capable of expansion or modification to accommodate both existing and proposed conductors. Notwithstanding any law to the contrary, all easement interests shall revert to the then fee owner if a route is not used for high voltage transmission line purposes for a period of five years. Subd. 2. In eminent domain proceedings by a utility for the acquisition of real property proposed for construction of a route or a site, the proceedings shall be conducted in the manner prescribed in chapter 117, except as otherwise specifically provided in this section. Subd. 3. When such property is acquired by eminent domain proceedings or voluntary purchase and the amount the owner shall receive for the property is finally determined, the owner who is entitled to payment may elect to have the amount paid in not more than ten annual installments, with interest on the deferred installments, at the rate of eight percent per annum on the unpaid balance, by submitting a written request to the utility before any payment has been made. After the first installment is paid the petitioner may make its final certificate, as provided by law, in the same manner as though the entire amount had been paid. Subd. 4. When property defined as class 3, 3b, 3c, 3cc, 3d, or 3f pursuant to section 273.13 is proposed to be acquired for the construction of a site or route by eminent domain proceedings, the property owner shall have the option to require the utility to condemn a fee interest in any amount of contiguous land which he owns and elects in writing to transfer to the utility within 60 days after his receipt of the petition filed pursuant to section 117.055. The required acquisition of land contiguous to, but outside the designated right-of-way of a route or the boundary of a site, shall be considered an acquisition for a public purpose and for use in the utility's business, for purposes of chapter 117 and section 500.24, respectively; provided that a utility shall divest itself completely of all such lands used for farming or capable of being used for farming within five years after the date of acquisition, or such land shall be sold at a public sale in the manner prescribed by law for the foreclosure of a mortgage by action. Subd. 5. A utility shall notify by certified mail each person who has transferred any interest in real property to the utility after July 1, 1974, but prior to the effective date of Laws 1977, Chapter 439, for the purpose of a site or route that he may elect in writing within 90 days after receipt of notice to require the utility to acquire any remaining contiguous parcel of land pursuant to this section or to return any payment to the utility and require it to make installment payments pursuant to this section.
§ 1166.635	ANNUAL PAYMENTS. A utility shall annually pay to the owners of land defined as class 3, 3b, 3c, 3cc, 3d, or 3f pursuant to section 273.13 listed on records of the county auditor or treasurer over which runs a high voltage transmission line as defined in section 116C.52, subdivision 3, an amount determined by multiplying a fraction, the numerator of which is the length of high voltage transmission line which runs over that parcel and the denominator of which is the total length of that particular line running over all property within the county, by ten percent of the transmission and distribution line tax revenue derived from the tax on that line pursuant to section 273.42. Prior to August 1 of each year, the auditor of each county shall send a statement to the utility specifying the amount of the payment the utility must make to each qualifying owner of land within the county pursuant to this section. Where a right-of-way width is shared by more than one property owner, the numerator shall be adjusted by multiplying the length of line on the parcel by the proportion of the total width on the parcel owned by that property owner. The amount of payment for which the property qualifies pursuant to this subdivision shall not exceed 20 percent of the total gross tax on the parcel prior to deduction of the state paid agricultural credit and the state paid homestead credit. The payments of this section shall be made to each affected landowner by the appropriate utility on or before October 1 of each year after 1977 based upon the tax levied in the previous year and shall not reduce any payment pursuant to a voluntary agreement or eminent domain proceeding.

TABLE 5-1
(continued)

PART & SECTION	PURPOSE
	Article XIII, Section 4 of the Minnesota Constitution: Lands may be taken for public way and for the purpose of granting to any corporation the franchise of way for public use. In all cases, however, a fair and equitable compensation shall be paid for land and for the damages arising from taking it. All corporations which are common carriers enjoying the right of way in pursuance of the provisions of this section shall be bound to carry the mineral, agricultural, and other productions of manufacturers on equal and reasonable terms.
	Amendment V of the United States Constitution: No person shall be . . . deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

auction.

At any time within 40 days from the date the commissioners filed their report with the district court, any party may appeal the decision on the award of damages to the court. Partial payments during the appeal must be made to any owner by the petitioner upon demand. All owners and petitioners are entitled to a jury trial and must disclose all witnesses and the amount of their appraisers suggested damage award. Judgment entered upon appeal is binding on all parties.

Several rights are granted to the petitioner and the owners under the eminent domain law. First, the petitioner has the right to enter the land to make surveys and examinations relative to any proceeding under the Chapter. Second, the petitioner obtains possession of the land after the filing of the award by the court-appointed commissioners if the appeal is waived or upon deposit of three-fourths of the award in an interest-bearing account if the appeal is not waived. In addition, the petitioner must notify the owner and occupant at least 90 days prior to the date on which possession is taken of the intent to possess by certified mail and pay or deposit an amount equal to the petitioners approved appraisal of value. Third, the owner may receive his payment in a lump sum or spread it out in four equal payments over four years, without interest (in the case of HVTLs. ten equal payments over 10 years with eight percent interest). Fourth, whenever the "underlying fee owner" claims that the easement acquired by condemnation is not being used for the purposes for which it was acquired, the owner may apply to the district court to discharge the easement (this provision is not applicable when dealing with public service corporations). Fifth, the owners and occupants are entitled to relocation assistance. Sixth, all easement interests revert to the owner if a utility, condemns the land for a HVTL and does not use it for that purpose within five years.

5.2 Issues in the Condemnation

One major factor contributing to the initiation of this study by the legislature was the controversy over the UPA/CPA $\pm$ 400 kv DC high voltage

transmission line in west-central Minnesota. Part of the purpose of the study is to examine the process and procedures with which that controversy concerned itself. The first and perhaps the most important process which the controversy concerned itself with was eminent domain or condemnation procedures. It is interesting to note that neither UPA (United Power Association) nor CPA (Cooperative Power Association) consider the eminent domain process a significantly contributing factor in the controversy. In reply to a questionnaire sent to many of the major parties in the controversy, UPA noted that "the so-called 'issue' of eminent domain was not a major contributing factor to the controversy."[56] CPA's response was similar: "To begin, I do not agree that there is a '. . . controversy that exists over the use of the power of eminent domain in the siting of power plants and lines.'"[57] This is in sharp contrast to the perspectives of citizen groups that are part of that controversy. CURE (Counties United for Rural Environment) and other rural citizen groups stated that the taking of land and the condemnation process were the original and principal concerns of their groups and that issues such as siting policy, environment, alternatives, conservation, etc. later developed from a more broadly based resistance of the line.[58]

Others not involved in the UPA/CPA power line controversy also recognize that there exists a controversy over eminent domain. The Position Paper on Eminent Domain by the Minnesota Investor Owned Utilities recognizes that there exists a controversy over eminent domain and traces the root of the controversy to the fact that land is becoming more valuable and that it is a finite resource.[59] Sidney Searles, Chairman of the Special Committee on Condemnation of the New York City Bar Association and a Commissioner of the New York State Eminent Domain Commission believes that the deep dissatisfaction felt by the public towards eminent domain lies with the mechanics of condemnation trials.[60] In addition, public dissatisfaction can occur from harassment, intimidation, and fraudulent statements made by utilities or other condemnors in order to secure an easement

for a power line or for other purposes.

Chapter One of this report noted that a significant number of power plants and their associated transmission lines may be built in the next 20 to 30 years. While the ultimate amount of electrical power capacity that can be sited is a function of many technological, environmental, and economic factors, human elements and social acceptance will play a major role. As noted by many individuals in government, utilities, and the community, the growth in electrical power will be closely linked with questions of social equity and the perception of justice that exists in the processes for siting, condeming, and paying for electric power plants and lines. This section will examine three aspects of the condemnation issue (1) due process; (2) social equity in condemnation proceedings; and (3) negotiating the taking.

A. Due Process

As noted in the previous section, eminent domain is inherent in the sovereignty of the state and requires no constitutional recognition. The constitution does, however, impose limitations on the exercise of that power. The most important of these limitations are the due process requirements of the fifth and fourteenth amendments. A summary of the Minnesota eminent domain process was also provided in the previous section. The eminent domain process, which has been amended several times, involves a procedure which remains basically unchanged since territorial days.[61] Is the eminent domain procedure compatible with modern day notions of due process?

No precise definition of "due process of law" has emerged from the Supreme Court. The court has recognized the difficulty of defining this fundamental right. In Davidson v. New Orleans (1877) the court noted that due process "remains today without the satisfactory precision of definition which judicial decisions have given to nearly all the other guarantees of personal rights. . ."[62] The court thought it best to determine the principals of due process from each case that arose. The court's more recent definition of due process, while

retaining the flexibility of Davidson, frequently includes the requirement of a hearing before the lawful taking of one's property is permitted.[63] The most widely known definition of due process is contained in Daniel Webster's argument before the court in Trustees of Dartmouth College v. Woodward (1819) when he stated that due process of law meant "a law which hears before it condemns, which proceeds upon inquiry, and renders judgment only after trial."[64]

Goldberg v. Kelly (1970) is the current "landmark" decision in support of the definition that procedural due process requires a hearing.[65] The elements of a hearing specifically required by the court include (1) "timely and adequate notice detailing the reasons" for the proposed action; (2) confrontation of adverse witnesses; (3) oral presentation of arguments and evidence; (4) disclosure of opposing evidence; (5) right to have counsel present; (6) findings based "solely on the legal rules and evidence adduced at the hearing"; (7) an impartial tribunal; and (8) a statement by the decision maker of the reasons for the decision and the evidence relied upon to reach that decision.[66] Similar requirements were reaffirmed by Judge Henry Friendly of the United States Second Circuit Court of Appeals in a recent article.[67]

"A threat that runs through all the decisions dealing with the issue of due process and the necessity of some kind of hearing is a tendency towards balancing of private interests in procedural safeguards against government expense and burden of providing those safeguards."[68] The listing of the required constitutional elements for a fair hearing provides a basis for comparison of the state eminent domain procedure. Since Minnesota Statutes, Chapter 117 requires a hearing in the condemnation process both on the "commissioner" level and upon appeal at district court, an analysis of the need for a hearing in condemnation proceedings seems moot.[69]

Does the eminent domain procedure require timely and adequate notice detailing the reasons for the condemnation? Minnesota Statutes §117.055 provides for 20 days notice prior to the presentation of the petition to the district court for

the appointment of commissioners who will assess damage awards. In addition, a description of the land to be taken, by whom, and for what purposes is submitted to the district court as part of the petition. No requirement exists that this information be submitted to the owner or tenant of the land to be taken at the time notice of the petition is provided. Consequently, while adequate notice of the proposed action is provided, adequate explanation or reasons for the action is not provided with the notice.

Does the eminent domain procedure provide for confrontation or cross-examination of adverse witnesses? Minnesota Statutes §117.085 summarizes the powers of the commissioners and the procedures to be used by them. While there is no requirement specified by statute which permits each party (petitioner and owner) to cross-examine each other's witnesses before the tribunal, it is common practice for witnesses called to be subject to cross-examination.[70] An appeal which is provided under Minnesota Statutes §117.145, is treated as civil action and either party may demand a jury trial (M.S. §117.165). The Minnesota Rules of Civil Procedure provide that witnesses in civil actions are subject to cross-examination. In short, adequate confrontation of adverse witnesses is provided at the commission level.

Does the eminent domain procedure provide for oral presentation of arguments and witnesses? Minnesota Statutes §117.085 and 117.175, Subdivision 1 provide for the presentation of oral arguments and witnesses at both the commission level and upon appeal to the district court.

Does the eminent domain process provide for disclosure of opposing evidence? Minnesota Statutes §117.085 provides that all evidence submitted shall be made publically and under oath. The appeal procedure to the district court (M.S. §117.165, Subd. 2) provides for disclosure of the witnesses and the amount of "their appraisers of the damage" within 15 days of the request by the other party.

Does the eminent domain procedure provide for the right to counsel?

Minnesota Statutes, Chapter 117 provides no prohibition against counsel if one party or the other wishes such representation before the tribunal. Presumably, each party would hire counsel if an appeal to the district court was taken.

Does the eminent domain process provide that the findings be made solely on the legal rules and evidence adduced at the hearing? Minnesota Statutes §117.085 spells out the powers and duties of the commissioners. There is no legal requirement that the damages awarded by the tribunal be based upon the evidence adduced at the hearing, though the commissioners can be required to explain their reasoning on appeal (M.S. §117.175, Subd. 1.).

Does the eminent domain procedure provide for an impartial tribunal? Minnesota Statutes §117.075 requires the court to appoint three "disinterested" commissioners of the reasons for the decision and the evidence relied upon to reach that decision be provided? Judge Friendly of the U.S. Second Circuit Court of Appeals in his analysis of the Goldberg decision has noted: "There can be likewise no fair dispute over the right to know the nature of the evidence on which the administrator relies:"[71]

> A written statement of reasons, almost essential if there is to be judicial review, is desirable on many other grounds. The necessity for justification is a powerful preventive of wrong decisions. The requirement also tends to effectuate intra-agency uniformity, and would be particularly important in this regard if the hearing board were composed of individuals drawn from outside the agency. A statement of reasons may even make a decision somewhat more acceptable to a losing claimant. Moreover, the requirement is not burdensome; sometimes it can even be met by checking a list on a card.

For example, the Administrative Procedures Act (APA) on the federal level requires at a minimum that hearings be based upon the record both for rulemaking and adjudication.[72] The Minnesota APA requires that hearing examiners submit a report showing the findings of fact, conclusions and recommendations based on series of criteria (M.S. §15.052, Subd. 3). In the eminent domain process, the tribunal is required to submit a report showing the damages awarded to each party. There is no requirement that the commissioners explain how they arrived

at their decision (M.S. §117.085), except upon appeal when a commissioner is called as a witness to explain the basis of their decision (M.S. §117.175, Subdivision 1). In general, the commissioners do NOT explain how they arrived at their decisions for awarding damages in their report to the court.[73]

In sum, the eminent domain process provided for in Minnesota Statutes, Chapter 117 fails to meet the due process requirements as delineated in Goldberg in several respects: (1) the notice of the petition for condemnation fails to provide an explanation of the reasons for the taking; (2) there is no legal requirement that the damages awarded by the tribunal of commissioners be based upon the evidence adduced at the hearing; and (3) there is no requirement that the commissioners explain how they arrived at their decision in the report that they file with the district court.

RECOMMENDATION: A COPY OF THE PETITION SUBMITTED TO THE DISTRICT COURT UNDER MINNESOTA STATUTES §117.055 SHOULD BE INCLUDED WITH THE NOTICE OF THE TIME AND PLACE OF THE HEARING SERVED UPON THE OWNER AND OCCUPANT OF THE LAND.

RECOMMENDATION: MINNESOTA STATUTES §117.086 RELATING TO NON-CONTIGUOUS TRACTS OF LAND SHOULD BE APPLICABLE AT THE COMMISSIONER LEVEL AS WELL AS ON APPEAL.

RECOMMENDATION: MINNESOTA STATUTES §117.085 SHOULD BE AMENDED TO REQUIRE THAT THE DAMAGES AWARDED BY THE COMMISSIONERS BE BASED UPON EVIDENCE SUBMITTED AT THE HEARINGS AND THE VIEWING, AND THAT THE CHAIRMAN OF THE COMMISSION BE REQUIRED TO EXPLAIN IN WRITING HOW THEY ARRIVED AT THEIR DECISION FOR AWARDING DAMAGES IN THEIR REPORT THAT THEY SUBMIT TO THE DISTRICT COURT.

B. Social Equity in Condemnation Proceedings.

The purpose of the condemnation procedure is to provide the "just compensation" mandated by the fifth amendment to the U.S. Constitution. Just compensation requires that the party whose property was taken must be paced in as good a financial position by a condemnation award as the party would have occupied had the property not been taken. In other words, a party whose land was taken must be awarded a full and perfect equivalent in money. This is the

thrust of the U.S. Supreme Court's early opinions.[74] In 1943 in United States v. Miller, the U.S. Supreme Court created the "willing buyer-willing seller" or "fair market value" theory for determining just compensation.[75] Market value is what a "willing buyer will sell to a willing seller." Just compensation, therefore, was determined a theoretical market value, i.e., a price that a not overeager buyer pays in a hypothetical market. Market value, as the court said, was "a guess by informed persons."[76]

The Supreme Court decisions, which have affected the evaluation concepts in every state, fail to recognize, monetarily, that the property owner in a condemnation proceeding is an unwilling seller. Consequently, the courts have ignored an owner's unwillingness to sell and the special benefits that accrue to the condemner. In addition, in the absence of state law to the contrary, the courts ignore the loss of profits, business interuption and appraiser, attorney, and other costs incurred in the condemnation process. "This unenviable position of unwillingness is recognized in English and Canadian law, where at least some balm is given to an innocent victim of that process, euphemistically called 'bulldozing for progress.' "[77]

A sense of justice would demand that, since one is dealing with an unwilling seller, the condemnation process minimize the burden in the process upon the land owner and insure that his interest is represented. Four aspects of the condemnation process, which deserve scrutiny in light of the unwilling seller concept, include (1) the commissioner process; (2) placing the burden of proof; (3) paying the damage award; and (4) payment of costs incurred in the process.

1. The Commissioner Process

Recently, proposals have been emerging that would abolish the commissioner process in condemnation proceedings. For example, the Uniform Eminent Domain Code, which offers no provisions for commissioners, would substitute a two-step process (1) mandatory negotiations prior to condemnation, and (2) a civil action in district court for the condemnation process.[78] Others have suggested

appointing a "referee" in lieu of the commissioners.[79] Presently, Minnesota Statutes, Chapter 117 provides for the appointment of commissioners to determine the amount of damages caused by the taking. The award made by the commissioners is subject to appeal to the district court. A summary of the commissioners powers and duties is provided in Table 5-1, supra.

The commissioner system, which was first created by the Mill Dam Act of 1857 passed by the territorial assembly has remained essentially constant through today. The most important aspect of the commissioner system, which is lacking in other proposals, is the requirement that the actual land taken be viewed (M.S. §117.085). As noted in a recent seminar on eminent domain, just as a picture is worth a thousand words, a viewing of the premises can create a clear picture of the consequences of a taking.[80] A viewing of the premises is essential for the owner and tenant to present their case. It is highly unlikely that a professional referee or judge who handles many cases would view the premises of every piece of land taken for a public purpose.

Willis Roke, Professor of Business Administration at Montana State University, came to the opposite conclusion of these proposals in his report: An Analysis of Property Valuation Systems Under Eminent Domain:[81]

> In view of the foregoing examination of the problems of valuation under eminent domain, the writer believes that establishment of the following system would be both desirable and practicable:
>
> (1) The highest officer of the highest court of each state or jurisdiction should be empowered to appoint a three-man commission with authority to make final awards of compensation for private property taken by eminent domain in that state or jurisdiction. Tenure of members of the commission should be at the pleasure of the court with appointment and removal of members subject to approval of the majority of the court.

One of the principal arguments used in favor of abolishing the commissioner system is that the commissioners do not have the expertise required. This lack of expertise results in a lack of uniformity in the dollar amounts of the damage awards. In addition, the commissioners are slow to view properties and this slows down property acquisition.[82]

With regard to the lack of expertise, there are several ways to overcome this potential problem. Professor Roke has recommended that "members of the commission should be selected because of impartiality and expert qualifications."[83] The questions of impartiality and expertise are intertwined to the extent that the commissioner must have no interest in the outcome, but be capable of performing the function. As noted in the previous section, the fifth and fourteenth amendments impose a due process limitation upon the taking of private land for public use. In Goldberg the Supreme Court identified several elements necessary to meet the hearing requirement inherent in the due process requirement. Included among these elements was a requirement for an unbiased tribunal to render the decision. Minnesota Statutes §117.075 requires the district court judge to appoint three "disinterested" commissioners and two alternates. Without question "an unbiased tribunal is a necessary element in every case where a hearing is required."[84]

The way to overcome the expertise issue is to select members for their expertise. Professor Roke has recommended that the "qualifications should be determined by the court, but should include special knowledge which would aid the tribunal to make a fair evaluation."[85] Special Rule 31 of the Fourth Judicial District in Minnesota provides in section (b) that [86]

> (b) Insofar as practical and desirable, the commissioners appointed in a condemnation proceeding shall consist of: (1) a real estate broker or other person familiar with current real estate market values, (2) a qualified real estate appraiser and (3) an attorney knowledgeable in eminent domain or real estate law.

The amount of time it takes to condemn property by the commissioner system in Minnesota is not excessive. Minnesota Statutes §117.105 provides that the report of the commissioners is due within 90 days, unless the court provides otherwise. Under Minnesota Statutes §117.075, the judge can remove a commission or commissioners if they fail to act. Consequently, property acquisition is not excessively delayed in Minnesota by the Commissioner system.

RECOMMENDATION: THE COMMISSIONER SYSTEM PROVIDED IN EMINENT DOMAIN PROCEEDINGS UNDER MINNESOTA STATUTES, CHAPTER 117 SHOULD BE RETAINED.

RECOMMENDATION: THE MECHANISM FOR CHOOSING COMMISSIONERS SHOULD BE ALTERED SO THAT INSOFAR AS PRACTICAL AND DESIRABLE, THE COMMISSIONERS SHALL CONSIST OF (1) A REAL ESTATE BROKER OR OTHER PERSON FAMILIAR WITH CURRENT REAL ESTATE MARKET VALUES; (2) A QUALIFIED REAL ESTATE APPRAISER; AND (3) AN ATTORNEY KNOWLEDGEABLE IN EMINENT DOMAIN OR REAL ESTATE LAW.

The effect of this change in selecting the commissioners would be significant. The tribunal would be composed of people capable of understanding the fine points in proceeding with the focus on the measurement of the true extent of the damages. A mechanism such as Rule 31 would increase the confidence of the parties in the fairness of the process and awards, particularly on the part of the unwilling seller. While this process increases the importance of the need for competent, unbiased or disinterested parties for the commissioners, such a responsibility is not unusual in our legal system. Hearing examiners and trials without juries at the district level require the same.

2. Placing the Burden of Proof

The notion of "burden of proof" reflects an allocation of the burden of producing evidence and the burden of persuasion in a civil, criminal, and adjudicatory action. Providing evidence and persuading others that your position is the correct one does constitute a real burden. In criminal cases, the prosecutor has the burden of proof that the defendant is guilty of the crime. In civil actions, the plaintiff traditionally has the burden of proof of sustaining his claim. The reason for this is that the defendant is the unwilling partner in the proceeding and therefore, the "willing" partner should have the burden of sustaining his case.[87]

The eminent domain process allocates the burden of proof at two different points. First, Minnesota Statutes §117.075 permits the judge to assign the burden of proof to either party in the hearing granting or denying the petition

for condemnation. Second, Minnesota Statutes §117.175 places the burden of proof on the landowners to show that the award granted by the commissioners for damages resulting from the taking is not fair. To the extent that the unwilling seller has the burden of proof in disproving the petition for condemnation and the requirement to show that the award of damages is not fair, the eminent domain process runs contrary to the traditional theory that the willing partner to the proceeding bears the burden to sustain his case. Throughout the condemnation proceeding, the land owner is the unwilling partner to the proceeding. As a result, eminent domain proceedings are different from other civil actions.

It has often been recognized "that one of the important bases for shifting the burden of proof is public policy."[88] The Minnesota Supreme Court has recognized that "where the burden of proof should rest 'is merely a question of policy and fairness based on experience in different situations.' "[89] Attorney Terry Calvani has argued that "the present allocation of burden reflects an outmoded policy of development and industrialization that is no longer in harmony with today's . . . concerns. Its reallocation would make such. . . concerns a significant factor in condemnation proceedings.[90]

RECOMMENDATION: THE BURDEN OF PROOF IN CONDEMNATION PROCEEDINGS SHOULD BE ABANDONED AT ALL STAGES IN THE EMINENT DOMAIN PROCESS INCLUDING APPEALS. ON APPEAL, THE OWNER SHOULD STILL BE GIVEN THE RIGHT TO OPEN AND CLOSE AT TRIAL.

3. Paying the Damage Award

Under the present process, the payment of the damage award may occur in more than one way. First, Minnesota Statutes §117.042 provides that when a petitioner cannotpay the owner directly, three-quarters of the award must be deposited by the clerk of court in an account payable with interest. Second, Minnesota Statutes §117.155 provides that when an appeal is taken from an award of the commissioners, the owner may receive up to three-quarters of the award,

unless encumbered, refused by the owner, or objected to for cause by the petitioner. If a payment pending an appeal is not made to the owner, the award is deposited by the clerk of court in an account without interest. Third, Minnesota Statutes §117.125 provides that when a residence of a party is unknown, is an infant, is under legal disability, or refuses to accept payment, the award is deposited in an account by the clerk of district court without interest. Fourth, Minnesota Statutes §117.231 provides that an owner can receive his payments in four installments over four years without interest. Finally, Minnesota Statutes §116C.63 provides that if the condemnation was for a power plant or transmission line that the owner may receive payment in ten equal installments with interest payable at eight percent per year. It is possible that all five sections may apply at the same time in a given situation.

Another problem with payment of the damage award is that often the petitioner will deposit the amount directly with the clerk of the district court without first attempting to provide payment directly to the owner. This can make it difficult for the owner, whose award is unencumbered, to obtain his money.[91] In addition, some district court judges require owners whose award is deposited with the clerk of district court to hire an attorney to obtain their unencumbered award. Apparently, the judges, rely on M.S. §117.155 ("the award. . . shall be paid out under the direction of the court") as a basis for requiring the owner to hire an attorney to obtain his award. This practice apparently varies from county to county. As a result, many owners have never received their payment, because they refuse to pay attorney's fees to obtain their award.[92]

RECOMMENDATION: MINNESOTA STATUTES, CHAPTER 117 AND MINNESOTA STATUTES §116C.63 SHOULD BE AMENDED TO PROVIDE A UNIFORM AND CONSISTENT APPROACH TO THE PAYMENT OF DAMAGE AWARDS. THE PETITIONER SHOULD FIRST ATTEMPT TO DIRECTLY PAY THE OWNER ALL UNENCUMBERED, UNCONTESTED DAMAGE AWARDS BEFORE DEPOSITING THE AWARD WITH THE CLERK OF COURT. THE CLERK OF DISTRICT COURT SHOULD DEPOSIT ALL AWARDS IN

AN INTEREST BEARING ACCOUNT UNTIL PAID. ANY OWNER SHOULD BE ABLE TO ELECT TO RECEIVE HIS AWARD IN EQUAL INSTALLMENTS UP TO TEN YEARS WITH ALL UNPAID INSTALLMENTS ACCRUING INTEREST. ALL AWARDS HELD BY THE DISTRICT COURT SHALL BE PAYABLE UPON DEMAND, AND, IF UNENCUMBERED OR CONTESTED, UPON THE REMOVAL OF SUCH ENCUMBRANCE OR THE CONCLUSION OF SUCH CONTESTION TO THE OWNER, UPON WRITTEN REQUEST. THIS PROVISION SHOULD BE MADE RETROACTIVE TO ALL AWARDS HELD BY THE DISTRICT COURT.

4. Costs of the Proceeding

Another issue of concern that affects the unwilling sellers participation in the eminent domain process is the direct monetary costs of participation incidental of costs incurred due to time lost in participating. Such costs include appraiser fees, witness fees, and possibly attorney fees if the owner chooses to appeal the commissioners award. Minnesota Statutes §117.085 provides that the commissioner can provide an additional $300 over and above the award for damages to the owner for hiring an appraiser. Minnesota Statutes §117.175 provides that on appeal, the court may allow reasonable expert witness, appraisal, and reasonable costs and disbursements. The court is not limited to $300 for appraisal fees. In addition, the petitioner, even if it is the prevailing party, cannot obtain witness or other costs from the owner.[93] In addition, Minnesota Statutes §117.195 provides that whenever the eminent domain proceeding is dismissed due to an action of the owner, the petitioner or condemner may be held responsible for paying "reasonable costs and expenses including attorney fees." This, however, rarely happens. A limit of $300 for the payment of appraiser fees in light of the fact that the owner is an unwilling seller does not seem justified. Most appraisers charge between $400 and $600 for an appraisal. Additional charges of $200 for each time appraisers testify before the commissioners or in court is not uncommon.[94] In addition, most owners would be required to hire an attorney if they choose to appeal. This could result in the loss of one-third to one-half of the damage award just to pay the attorney.

The U.S. Supreme Court has noted in Powell v. Alabama that "the right to be heard would be, in many instances, of little avail if it did not comprehend the right to be heard by counsel."[95] In Chapter Three (section 3.3B) of this report, the arguments were reviewed on the importance of providing counsel to members of the public who wished to participate in the administrative and judicial processes. In the eminent domain process, the law requires that the unwilling seller be involved. If the owner believes that the award for damages by the commissioners is inadequate, should he lose a third of his award in order to obtain counsel to exercise his right of appeal? Judge Young of the New York Court of Claims in the American Bar Association National Institute conference on Condemnation, Compensation and the Courts has recommended that an additional 5 to 10 percent should be added to the award to pay attorney fees during appeal.[96] North Dakota law provides for the payment of attorney fees if the award upon appeal is one dollar more.

RECOMMENDATION: THE PETITIONER IN THE EMINENT DOMAIN PROCESS SHOULD BE REQUIRED TO PAY ALL REASONABLE APPRAISAL AND EXPERT WITNESS COSTS INCURRED ON THE PART OF THE OWNER AT ANY STAGE OF THE PROCESS INCLUDING APPEALS. IN ADDITION, THE PETITIONER SHOULD PAY ALL REASONABLE LEGAL COSTS INCLUDING ATTORNEY FEES IF THE OWNER, UPON APPEAL, RECEIVES AN INCREASE IN HIS AWARD BY $1,000 OR 10 PERCENT, WHICHEVER IS LESS.

C. Negotiating a Settlement

It is a common practice for a utility to negotiate a settlement of the compensation award, prior to the initiation of condemnation proceedings.[97] However, there is no statutory obligation that the utilities conduct negotiations. The Uniform Eminent Domain Code recommends that a condemnor make diligent efforts to acquire property by negotiation before instituting eminent domain proceedings. The Proposed Code recommends (1) that the condemnor have the property appraised and inform the owner of the appraisal and permit the owner to accompany the appraiser during the inspection; (2) that the condemnor must offer the owner

AN INTEREST BEARING ACCOUNT UNTIL PAID. ANY OWNER SHOULD BE ABLE TO ELECT TO RECEIVE HIS AWARD IN EQUAL INSTALLMENTS UP TO TEN YEARS WITH ALL UNPAID INSTALLMENTS ACCRUING INTEREST. ALL AWARDS HELD BY THE DISTRICT COURT SHALL BE PAYABLE UPON DEMAND, AND, IF UNENCUMBERED OR CONTESTED, UPON THE REMOVAL OF SUCH ENCUMBRANCE OR THE CONCLUSION OF SUCH CONTESTION TO THE OWNER, UPON WRITTEN REQUEST. THIS PROVISION SHOULD BE MADE RETROACTIVE TO ALL AWARDS HELD BY THE DISTRICT COURT.

4. Costs of the Proceeding

Another issue of concern that affects the unwilling sellers participation in the eminent domain process is the direct monetary costs of participation incidental of costs incurred due to time lost in participating. Such costs include appraiser fees, witness fees, and possibly attorney fees if the owner chooses to appeal the commissioners award. Minnesota Statutes §117.085 provides that the commissioner can provide an additional $300 over and above the award for damages to the owner for hiring an appraiser. Minnesota Statutes §117.175 provides that on appeal, the court may allow reasonable expert witness, appraisal, and reasonable costs and disbursements. The court is not limited to $300 for appraisal fees. In addition, the petitioner, even if it is the prevailing party, cannot obtain witness or other costs from the owner.[93] In addition, Minnesota Statutes §117.195 provides that whenever the eminent domain proceeding is dismissed due to an action of the owner, the petitioner or condemner may be held responsible for paying "reasonable costs and expenses including attorney fees." This, however, rarely happens. A limit of $300 for the payment of appraiser fees in light of the fact that the owner is an unwilling seller does not seem justified. Most appraisers charge between $400 and $600 for an appraisal. Additional charges of $200 for each time appraisers testify before the commissioners or in court is not uncommon.[94] In addition, most owners would be required to hire an attorney if they choose to appeal. This could result in the loss of one-third to one-half of the damage award just to pay the attorney.

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an amount at least equal to the condemnor's appraisal of just compensation for the property; and (3) that the condemnor may institute condemnation proceedings without negotiating if the owner refuses to negotiate or under other circumstances.[98]

It is axiomatic to fair negotiating not to harass or coerce the owner to compel agreement on the damage award. During the construction of the UPA/CPA line in west-central Minnesota, many farmers have complained that harassment has occurred and fraudulent statements were made by representatives of the cooperatives. Such practices were common:[100]

> It was common practice to tell a farmer that his neighbor had signed the easements when he hadn't. We also told farmers they were the last ones in their area to sign easements. We were specifically instructed by the people at the co-ops to use these tactics if nothing else seemed like it was going to work. They also told us that, at last resort, we could threaten farmers with condemnation of their land.

The same practices are alleged to have occurred in North Dakota on the same line:[101]

> In North Dakota, more than a dozen affidavits were filed with the Consumer Fraud Division of the State Attorney General's office in the 1975-1976 period on behalf of farmers and landowners who were subject to harassment, intimidation and fraudulent statements made by agents for the United Power Association (UPA) and Cooperative Power Association (CPA), both seeking easements for a high voltage power line. According to sources in North Dakota, UPA/CPA representatives used threats of condemnation in 1975 and 1976 to obtain easements from landowners, even though they did not legally have the power of eminent domain until September of 1977.

In a 1979 report of the Rural Land and Energy Project of the Washington, D.C. based Environmental Policy Institute entitled: Lines Across the Land: Rural Electric Cooperatives: The Changing Politics of Energy in Rural America, such practices were found in other cooperatives as well.[102] It should be noted that the Uniform Eminent Domain Code includes a provision which would forbid coercive actions.[103]

Since negotiations are a common practice, and since the present negotiating practices leave a sour taste in many owners' mouths, some reforms are needed.

RECOMMENDATIONS: DURING NEGOTIATING FOR PROPERTY SUBJECT TO EMINENT DOMAIN PROCEEDINGS, THE FOLLOWING PRACTICES SHOULD BE STATUTORILY MANDATED: (1) THE CONDEMNOR HAVE THE PROPERTY APPRAISED AND INFORM THE OWNER OF THE APPRAISAL AND PERMIT THE OWNER TO ACCOMPANY THE APPRAISER DURING THE INSPECTION; (2) THE CONDEMNOR MUST OFFER AN AMOUNT AT LEAST EQUAL TO THE CONDEMNOR'S APPRAISAL OF JUST COMPENSATION FOR THE PROPERTY; AND (3) THE CONDEMNOR MAY INSTITUTE CONDEMNATION PROCEEDINGS WITHOUT NEGOTIATING IF THE OWNER REFUSES TO NEGOTIATE, CANNOT BE FOUND, IS LEGALLY INCOMPETENT, OR SIMILAR REASONS.

RECOMMENDATION: A FRAUD STATUTE SHOULD BE ENACTED WHICH PROHIBITS HARASSMENT OR THE USE OF FRAUDULENT STATEMENTS TO SECURE TITLE TO LAND SUBJECT TO CONDEMNATION PROCEEDINGS. IF A CONDEMNOR USES THESE PRACTICES, A PENALTY SHOULD BE IMPOSED OF AN ADDITIONAL 50 PERCENT OF THE JUST COMPENSATION ADDED TO THE AWARD.

The condemnation process outlined in the previous section (Chapter Five, section 5.1B) requires the unwilling seller to appeal his decision to the district court if he is unsatisfied with the amount of the damage award granted by the commissioners. The judicial appeal is a lengthy procedure with corresponding requirements of large amounts of time and money necessary to an effective appeal. At the commissioner level, the owner and his appraiser, if he has one, is pitted against the nearly limitless resources of the utility or other condemner in sustaining his case. Consequently, the owner is at a disadvantage in being unfamiliar with both the condemnation process and appraising techniques. This situation is generally not true for the condemner.

In his examination of land use and due process, Curtis Vaughan, III concluded that "it is time to include a factor in the balancing of rights and interests that represents the difficulty of wading through the regulatory morass so as to place the affected property owners in a position to be better able to protect their property interests."[104]

RECOMMENDATION: THE PETITIONER IN A CONDEMNATION PROCEEDING SHOULD BE REQUIRED TO PROVIDE A "HANDBOOK" TO THE OWNER AND TENANT OF THE PROPERTY WHICH EXPLAINS

HIS RIGHTS IN CONDEMNATION PROCEEDINGS, HOW THE PROCESS WORKS, AND HOW TO PARTICIPATE IN THE PROCESS. THIS HANDBOOK SHOULD BE PROVIDED DURING THE FIRST MEETING OR NOTICE TO THE OWNER AND TENANT OF AN INTEREST TO ACQUIRE ANY LAND, WHICH COULD BE SUBJECT TO A CONDEMNATION PROCEEDING.

1. Taking Agricultural Land

The use of land in Minnesota is rapidly becoming politicized, just as energy, food, water, and minerals has in the last 100 years. Fifty years ago, land was thought of as a commodity to be used by the owner as he pleased without regard to neighboring or community interests. Today, land is no longer cheap and its supply has not increased either with Minnesota's population or the demands of that population. As a result, the existing land is used much more intensively than ever before. Consequently, society as a whole has become more interdependant and land is now regarded more as a resource than a commodity.[105] According to a recent study, urbanization is taking a substantial portion of the nation's prime agricultural land:[106]

> Twenty percent of the conterminous United States is within 50 miles of at least one of our 100 largest urbanized areas; 28 percent of our best farmland (land in Soil Capability Classes I and II) is within these radii. The 43 percent of our land area that is in SMSA counties and counties adjacent to SMSA counties contains 52 percent of our prime farmland. Outside of the Great Plains, these counties contain 45 percent of the land base, but 63 percent of the prime farmland; and in California, our most important agricultural state, the disproportionate concentration of the best soils in and around the SMSA counties is even greater.
>
> These figures indicate a moderate but significant bias in the location of our prime farmland towards the vicinity of our urban populations. Ceteris paribus, as our cities expand, prime farmland will be more likely to be urbanized than other land.

A recent State Planning Agency projection estimated that more than 500,000 acres of land in farms will be withdrawn from the agricultural bases by 1990 in Minnesota.[107]

"Ten years from now, Americans could be as concerned over the loss of the nation's prime agricultural land as they are today over shortages of oil and gasoline."[108] Robert Gray, Executive Director of the National Agricultural Lands

Study has noted: "The wheatfields of Kansas and the cornfields of Iowa may look boundless, but they are not. As a nation, we must come to the full realization that prime agricultural land is no longer a surplus resource, if, indeed, it ever was."[109] And, as Charles Warren, Former Chairman of the Council on Environmental Quality notes:[110]

> The pressure to convert prime farmland to other uses has been intense, since the very factors which make such land ideal for agriculture also make it desirable for development.
>
> The Pacific, Northeast, Great Lakes and Appalachian regions have been particularly hard hit by this problem. The continuing degradation of soils due to water and wind erosion adds to the urgency of the problem by further reducing our Nation's total crop land base. If the United States is to continue as the major supplier of food for the world whose population will increase by 2.2 billion by the year 2000, we must now take steps to protect our Agricultural land.

The magnitude of the land use problem was well illustrated in a 1964 report on the availability of land resources to satisfy demands from electrical utilities and all other possible sources by the year 2000. The study concluded that to meet all projected demands for land in the nation by 2000 would "require the use of every acre in the 48 contigious states, including deserts, mountain peaks, and marshes and still leave a net shortage of 50 million acres."[111]

In 1970, the utilities forecast that electricity generating capacity would quadruple by 1990. The utility industry estimated that it would require about 300 new sites of 500 MW or larger, over and above substantial additions at existing plants and replacement of older units. The industry intended to seek 170 sites by 1980 and 130 sites by 1990.[112] Since the rate of growth (the infamous second) derivative) has decreased substantially since this estimate was made, fewer sites will be needed by 1990. Regardless of which growth rate is used, millions of acres of valuable lands, including a substantial amount of waterfront property, will be required to meet the projected demands of these plants. The old Federal Office of Science and Technology estimated that the space requirements for a 3,000 MW generation station (the size of plants that were projected to be built

in 1968) including land for fuel storage and sulfur oxide removal facilities (2-4 acres) would be as follows: coal - 900-1200 acres; nuclear - 200-400 acres; and oil - 150-350 acres.[113]

In 1970, there were approximately 300,000 miles of high voltage overhead transmission lines in existence in the United States involving an average right-of-way of 110 feet. These lines required 4,000,000 acres. 1970 estimates of the amount of transmission lines in 1990 were that 500,000 miles of high voltage electric transmission lines would bring the total to 7,000,000 acres of rights-of-way assuming an average of 115 feet width.[114]

The land used for power generation is not all used in the same way. Coal fired facilities need additional land for ash disposal. Nuclear plants have an "exclusion zone" to protect the public from radiation hazards. Consequently, nuclear facilities tend to end up being somewhat larger than coal facilities. Cooling ponds for either type of plant are often large with 2,500 acres or more.[115] Land use for mining is also fairly large. While the quantities vary with the coal seam and the mining method, "a reasonable range, averaged over surface and underground mining, is 350 to 600 acres per plant-year.[116] Over a thirty year period, coal facilities could take 10,500 to 18,000 acres. Uranium mining, while not as significant as coal mining, is not negligible and could increase if mining of low grade ores occurs in the future (140,000 acres of private land have been leased in and around Pine County, Minnesota in search of uranium deposits). Nearly 20,000 acres a year are involved per USW. Scrubbers to remove sulfur oxides create vast amounts of limestone sludge, which requires special disposal efforts if leaching into the environment is to be prevented. Six hundred acre feet per plant per year are needed to store this material.

Power plants and mines have impacts on neighboring lands as well. These impacts include (1) acid mine drainage; (2) erosion in strip mined areas and the resultant sedimentation of nearby valleys; (3) the effects of water runoff due to vegetation loss from transmission lines; (4) the effects of air pollution on the surrounding

vegetation (SO, PCO, heavy metals, ash, etc.); (5) the long term effects of CO_2 on climate; (6) the impact of heated cooling water and radioactively contaminated water on aquatic organisms and human health; (7) decreased property values; and (8) the spiritual and aesthetic impacts from plants and lines on people and their lifestyles.[117] In addition, power lines may affect agricultural operations by not only the above, but by interfering with (1) the use of farm implements; (2) irrigation; (3) soil compaction; (4) crop yields (corn and soybeans from photo-chemical oxidants); and (5) specialty farms (wild rice, apiaries, turkey farms, fur farms, etc.). All of these factors result in economic losses.[118]

Clearly, there is a need to allocate land for high-nuisance, heavy industries. A conservative projection of the need for new electric power generating facilities would call for ten plants of 35,000 to 70,000 acres, including the generating stations, substations, cooling facilities, water and full storage areas and surrounding buffering zone.[119] This is equal to 12 to 25 percent of the total area of floodplains in this state on the Minnesota and Mississippi Rivers below Ortonville and St. Cloud. "These numbers indicate the need for a system of priorities in land allocation on the floodplains in the major power market area of the state."[120]

In a 1979 study on Minnesota Cropland Resources conducted by the State Planning Agency, there is a potential for conflict between cropland and electric generating facilities and corridors:[121]

> In the next 15 years an estimated 2,224 miles of new powerlines and facilities for approximately 5,000 megawatts of generating capacity will be sited in Minnesota. (Source: Power Plant Siting Staff, Environmental Quality Board, September, 1978). The projected generating facilities will require about 10,000 acres and, perhaps, additional thousands of acres in perimeter noise buffer strips (which might be used for cropland). Of the total projected additional generating capacity, about 1,600 MW, or about 3,200 acres of land, probably will be sought in southern Minnesota in areas of high soil productivity. Probable siting areas are the Minnesota and Mississippi River Valleys. As a percentage of the total acreage of soils in PG-1 and 2 combined, the requirement of 3,200 acres represents about two-hundredths (.02%) of one percent of the top two productivity groups. However, sites might well be located on less productive soils.

In sum, its axiomatic that the development and use of energy resources, whether on public or private land, generate conflict with other land uses. Often energy facilities are located on lands valuable for agriculture, forestry, grazing, or recreational uses. Therefore, one of the more important issues in the siting question is the compatibility of energy facilities with other land uses. In addition, the increasing distances between the energy facility and the end uses of that energy demand ever increasing amounts of land for transmission corridors. Consequently, some attempt to resolving these land use conflicts or at least balancing the competing interests for the land must be made.[122]

The 1979 Inventory report of power plant study areas recognizes the need to protect agricultural land and cites one of its regulations as the MEQB's demonstrated concern for preserving agricultural land: "Preferred sites minimize the removal of valuable and productive agricultural, forestry, or other mineral land from their uses."[123] However, recognizing the need to minimize adverse impacts of siting on agricultural lands and declaring prime agricultural land an exclusion or avoidance area is entirely different. The existing state policy is to permanently preserve agricultural land from conversion to other uses.[123A] Such a classification would greatly restrict the loss of agricultural land due to electric energy facilities. Prime agricultural land has been classified numerous ways and should not present an insurmountable problem in amending MEQB regulations to exempt such land.[124]

Another problem that generates conflict in utilizing agricultural land for transmission corridors is the failure to require negotiations between the utility and the farmer for the exact placement of the towers. The Power Plant Siting Act requires the MEQB to establish a route for the line. The route that the MEQB provides is of variable width up to 1.25 miles wide (MEQB 72L). While the MEQB must take into consideration survey, natural division lines, and field boundaries to minimize the interference with agricultural operations (MEQB 73H(1)(b)(3)) in selecting a route, the utility is not required to do so in determining the exact placement of the towers.

In challenging the utility's exact placement of the towers, the Minnesota Supreme Court ruled in Skeie that in challenging the "necessity" of eminent domain proceedings, the owner in order to protect agricultural land must show that the line would impair a "protectable natural resource":[125]

> If the landowner had introduced evidence to prove that the presence of the power line would have made the soil sterile; or caused its erosion; or limited its cropping potential, in some significant, irreversible way, we would have a different situation. But this was not done. The missing evidence is that which distinguishes intrusion upon land which cannot be compensated by damages from those which can. The distinction is a critical one. (Footnotes omitted.)

Consequently, a farm owner has no redress to stop or alter a line short of proving total destruction of the land.

RECOMMENDATION: UTILITY COMPANIES BUILDING HIGH VOLTAGE TRANSMISSION LINES MUST ATTEMPT NEGOTIATIONS WITH THE OWNER ON THE EXACT PLACEMENT OF THE TOWERS WITHIN THE ROUTE DESIGNATED BY THE MEQB.

RECOMMENDATION: IN SITING HIGH VOLTAGE TRANSMISSION LINES THE UTILITY SHOULD FOLLOW PROPERTY LINES OR SECTION LINES, WHENEVER PRACTICAL, WITHIN THE ROUTE DESIGNATED BY THE MEQB UNLESS AN ALTERNATIVE IS NEGOTIATED WITH THE OWNER. IF NEGOTIATIONS DO NOT RESULT IN A SETTLEMENT, THE COMMISSIONERS SHOULD DECIDE THE PLACEMENT OF THE TOWERS.

RECOMMENDATION: THE MINNESOTA ENVIRONMENTAL QUALITY BOARD SHOULD AMEND ITS EXCLUSION AND AVOIDANCE AREA REGULATIONS TO INCLUDE PRIME AGRICULTURAL LAND AS AN EXAMPTION, BY HOLDING IMMEDIATE PUBLIC RULEMAKING HEARINGS.

A corollary question is whether the certificate of need and power plant (line) siting processes must be completed prior to the initiation of eminent domain proceedings. In a 1977 Wisconsin case, NSP did not have to complete the Wisconsin certificate of necessity process before land could be condemned for the now defunct Tyrone facility.[126] Would this be true for Minnesota as well? No case has decided this matter. However, it is clear in light of Skeie that these processes are the only method that an owner has to express his concerns about the impact of siting plants and lines on his property. Consequently, these processes should be completed before eminent domain actions are commenced.

RECOMMENDATION: SINCE THE MEA AND MEQB CERTIFICATE OF NEED AND POWER PLANT SITING DECISIONS DETERMINE THE NECESSITY FOR THE CONDEMNATION PETITION, THE MEA CERTIFICATE OF NEED AND MEQB POWER PLANT SITING PROCESS SHOULD BE COMPLETED BEFORE EMINENT DOMAIN ACTIONS ARE COMMENCED.

5.3 Summary of Findings and Recommendations

It is apparent that there is a crisis attitude today with regard to energy problems. This is indicated by the proliferation of new agencies, the enactment of new laws which regulate energy use and development, and by the proposal for new procedures, such as the Energy Mobilization Board (EMB). The EMB would not only devel priorities for energy projects and goals, but would also limit the time that federal, state, and local governments have to make decisions (a process that could result in de facto denial of due process and substantive consideration of the proposed project). The decisions that result from this crisis attitude can seriously affect land use. Studies on the future of land use in the United States report that our intensive use of land is expected to nearly double by the year 2000. The equivalent of every public and private facility including schools, hospitals, shopping centers, power plants, pipelines, homes and highways will be duplicated to accommodate projected population increases in the next twenty to thirty years. Accompanying this type of resource use pressure will be hotly contested debates over governmental powers to regulate land use and the taking of land for public purposes. Recently, extensive debates have occurred in Minnesota over regulation and the taking of land (particularly agricultural land) for power plants, power lines, pipelines, streets and highways, the "domed stadium", preserving "wild and scenic" rivers, protecting the BWCA, and many more. These debates, which have occurred in the courts, the legislature, before government agencies, and in many other public forms, will increase in the future.

The desirability of local control over land use decision is under serious question. Each local community, being concerned with its own protection, has

tended to zone its land to avoid becoming a dump for undesirable uses. This has resulted in urban sprawl, exclusionary zoning, and unplanned development. Regional problems such as pollution, inadequate housing, and improper management of the environment have been attacked haphazardly and often in deference to wholly local interests. This has resulted in purely local welfare becoming the dominant concern. In addition, local governments, which are dependant upon property taxes for support, find it difficult to resist the desires of developers even though important social and aesthetic interests are sacrificed. One commentator has suggested that the problem is due not because the land use decision making is local, but "the flaw is that the criteria for decision making are exclusively local, even when the interests are far more comprehensive."[127]

Recently, the Minnesota Legislature has enacted new laws to overcome the procedures of local concerns by enacting state land use control authorities. Some of these include the Flood Plain Management Act, Regulation of Shoreland Development, the Critical Areas Act, the Minnesota Wild and Scenic Rivers Act, and the Power Plant Siting Act. In each instance the state either regulates the use of land through its police power or permits the "taking" of the land to meet a "public use" through the power of eminent domain. This chapter focuses on the taking of land under the power of eminent domain by addressing the controversy about the condemnation or eminent domain process used to take land.

What powers and what limitations on the use of power does the state have in affecting the use of land? No matter what level of government seeks to control land use by direct or indirect means, the control must be based on one or more of the following powers; commerce power, power to tax and spend, power over federal property, police power (including control of public nuisances), and eminent domain.

The two most important powers from the perspective state control are the police power and the power of eminent domain. Indeed, much of the litigation over real property that takes place is a result of the choice of power (police

or eminent domain) that the state exercised in a given instance. The issue in these cases is whether a "taking" has occurred which requires compensation by the state or others delegated the power of eminent domain.

Eminent domain, like the police power, is inherent in the sovereignty of the state and requires no constitutional recognition. The U.S. Supreme Court has ruled that "the right of eminent domain, that is, the right to take private property for public uses, appertains to every independent government. It requires no constitutional recognition; it is an attribute of sovereignty."[128] Constitutional provisions concerning eminent domain limit the power of government to exercise the right, but do not create the power. Even so, the court has ruled that the fifth amendment implies the grant of the power of eminent domain to government.

Does the taking of private property for siting power plants and high voltage transmission lines (HVTL) constitute a public use? The recognition that power plants and lines serve a public use is obviously connected with the inherent value of electricity itself. Since electricity possesses an inherent capacity to serve domestic uses, it has and continues to be considered a public use unless produced primarily to private rather than public use. Since power plants and lines are the sole means of providing electricity to consumers, they have generally been considered a public use. A number of cases have addressed various aspects of the public use issue as it relates to power plants and lines. The cases have determined that (1) each member of the public need not be actually benefitted by the construction of a plant or line for it to serve a public use, provided that each member of the public shares an equal right with all others to use the electricity; (2) the fact that one patron will be served by the facility does not destroy its public nature; (3) the transmission of electricity by a wholesaler for ultimate distribution constitutes a public use; (4) electricity supplied to insure the reliability of a power system, even though it might not supply any customers (within a state) directly, still constitutes a public use; (5) public use exists where evidence that

reserve emergency power supplies would be increased by the proposed facility, that the existing electrical distribution system would be stabilized, or that options existed that could provide electric power to a substantial number of residences; (6) property may be condemned prior to the granting of certificate of necessity by state agencies; (7) land may be condemned even though other property may be more suitable; and (8) utilities may enter private property to conduct tests prior to the initiation of condemnation proceedings. In sum, the taking of private property to site power plants and lines appears to constitute a legitimate public use.

The issue of whether power plants and lines constitute a legitimate public use was settled in a 1979 Minnesota Supreme Court Case. It had been argued that the Minnesota Energy Agency Act (M.S., Chapter 116H) removed the question of need from the eminent domain proceedings of M.S., Chapter 117. "By this Act, the legislature has removed from the condemnation court the power to decide whether the subject facility is needed and has transferred that power to a state administrative agency."[129]

Minnesota has extended the power of eminent domain to more than state agencies and political subdivisions. The power has been extended to railroads, mining companies, public utilities, and others. As a result, eminent domain is a widely used power affecting land use and the rights and values of large numbers of people. In addition, the eminent domain procedures differ substantially from procedures for other types of civil conflicts.

Chapter One of this report noted that a significant number of new power plants and their associated transmission lines may be built in the next 20 to 30 years. While the ultimate amount of electrical power capacity that can be sited is a function of many technological, environmental, and economic factors; human elements and social acceptance will play a major role. As noted by many individuals in government, utilities and the community, the growth in electrical power will be closely linked with questions of social equity and the perception

of justice that exists in the processes for siting, condemning, and paying for electric power plants and lines. This section will examine three aspects of the condemnation issue (1) due process; (2) social equity in condemnation proceedings; and (3) negotiating the taking. "A thread that runs through all the decisions dealing with the issue of due process and the necessity of some kind of hearing is a tendency towards balancing of private interests in procedural safeguards against government expense and burden of providing those safeguards."[130] The listing of the required constitutional elements for a fair hearing provides a basis for comparison of the state eminent domain procedure. Since, Minnesota Statutes, Chapter 117 requires a hearing in the condemnation process both on the "commissioner" level and upon appeal at district court, an analysis of the need for a hearing in condemnation proceedings seems moot.

In sum, the eminent domain process provided for in Minnesota Statutes, Chapter 117 fails to meet the due process requirements as delineated in Goldberg in several respects: (1) the notice of the petition for condemnation fails to provide an explanation of the reasons for the taking; (2) there is no legal requirement that the damages awarded by the tribunal of commissioner be based upon the evidence adduced at the hearing; and (3) there is no requirement that the commissioners explain how they arrived at their decision in the report that they file with the district court. The following recommendations are offered to overcome the due process inadequacies in the present statute.

26. A copy of the petition submitted to district court under Minnesota Statutes §117.055 should be included with the notice of the time and place of the hearing served upon the owner and occupant of the land.

27. Minnesota Statutes §117.086 relating to non-contiguous tracts of land should be applicable at the commissioner level, as well as on appeal.

28. Minnesota Statutes §117.085 should be amended to require that the damages awarded by the commissioners be based upon evidence submitted at the hearings, and the viewing; and that the chairman of the commission berequired to explain in

> writing how the commission arrived at their decision for awarding damages in their report that they submit to the district court.

The purpose of the condemnation procedure is to provide the "just compensation" mandated by the fifth amendment to the U.S. Constitution. Just compensation requires that the party whose property was taken must be placed in as good a financial position by a condemnation award as the party would have occupied had the property not been taken. In other words, a party whose land was taken must be awarded a full and perfect equivalent in money. This is the thrust of the U.S. Supreme Court's early opinions. In 1943 in United States v. Miller, the U.S. Supreme Court created the "willing buyer-willing seller" or "fair market value" theory for determining just compensation. Market value is what a "willing buyer will sell to a willing seller." Just compensation, therefore, was determined a theoretical market value, i.e., a price that a not overeager buyer pays in a hypothetical market. Market value, as the court said, was "a guess by informed persons."

The Supreme Court decisions, which have affected the evaluation concepts in every state, fail to recognize, monetarily, that the property owner in a condemnation proceeding is an unwilling seller. Consequently, the courts have ignored an owner's unwillingness to sell and the special benefits that accrue to the condemner. In addition, in the absence of state law to the contrary, the courts ignore the loss of profits, business interruption, and appraiser, attorney, and other costs incurred in the condemnation process. "This unenviable position of unwillingness is recognized in English and Canadian law where at least some balm is given to an innocent victim of that process, euphemistically called 'bulldozing for progress.'"[27]

A sense of justice would demand that, since one is dealing with an unwilling seller, the condemnation process minimize the burden in the process upon the landowner and insure that his interest is represented. Four aspects of the condemnation process, which deserve scrutiny in light of the unwilling seller concept include (1) the commissioner process; (2) placing the burden of proof;

(3) paying the damage award; and (4) payment of costs incurred in the process. The following recommendations are offered to overcome defects in these areas.

29. The commissioner system provided in eminent domain proceedings under Minnesota Statutes, Chapter 117 should be retained.

30. The mechanism for choosing commissioners should be altered so that insofar as practical and desirable, the commissioners shall consist of (1) a real estate broker or other person familiar with current real estate market values; (2) a qualified real estate appraiser; and (3) an attorney knowledgeable in eminent domain or real estate law.

31. The burden of proof in condemnation proceedings should be abandoned at all states in the eminent domain process including appeals. On appeal, the owner should still be given the right to open and close at trial.

32. Minnesota Statutes, Chapter 117 and Minnesota Statutes §116C.63 should be amended to provide a uniform and consistent approach to the payment of damage awards. The petitioner should first attempt to directly pay the owner all unencumbered, uncontested damage awards before depositing the award with the clerk of court. The clerk of district court should deposit all awards in an interest bearing account until paid. Any owner should be able to elect to receive his award in equal installments up to ten years with all unpaid installments accruing interest. All awards held by the district court shall be payable upon demand, and if encumbered or contested upon the removal of such encumbrance or the conclusion of such contesting to the owner upon written request. This provision should be made retroactive to all awards held by the district court.

33. The petitioner in the eminent domain process should be required to pay all reasonable appraisal and expert witness costs incurred on the part of the owner at any stage of the process including appeals. In addition, the petitioner should pay all reasonable legal costs including attorney fees if the owner, upon appeal, receives an increase in his award by $1,000.00 or 10 percent, whichever is less.

It is common practice for a utility to negotiate a settlement of the compensation award, prior to the initiation of condemnation proceedings. However, there is no statutory obligation that the utilities conduct negotiations. The Uniform Eminent Domain Code recommends that a condemner make diligent efforts to acquire property by negotiation before instituting eminent domain proceedings. The Proposed code recommends (1) that the condemner have the property appraised and inform the owner of the appraisal and permit the owner to accompany the

appraiser during the inspection; (2) that the condemner must offer the owner an amount at least equal to the condemner's appraisal of just compensation for the property; and (3) that the condemner may institute condemnation proceedings without negotiating if the owner refuses to negotiate or under other circumstances. It is axiomatic to fair negotiating not to harass or coerce the owner to compel agreement on the damage award. During the constructing of the UPA/CPA line in west-central Minnesota, many farmers have complained that harassment occurred and fraudulent statements were made by representatives of the cooperatives. According to a former agent who worked for the cooperatives, such practices were common. The following recommendations are offered to provide for better negotiating practices.

34. During negotiating for property subject to eminent domain proceedings, the following practices should be statutorily mandated: (1) the condemnor have the property appraised and inform the owner of the appraisal and permit the owner to accompany the appraiser during the inspection; (2) the condemner must offer an amount at least equal to the condemnor's appraisal of just compensation for the property; and (3) the condemnor may institute condemnation proceedings without negotiating if the owner refuses to negotiate, cannot be found, is legally incompetent, or similar reasons.

35. A fraud statute should be enacted which prohibits harassment or the use of fraudulent statements to secure title to land subject to condemnation proceedings. If a condemnor uses these practices, a penalty should be imposed of an additional 50 percent of the just compensation added to the award.

36. The petitioner in a condemnation proceeding should be required to provide a "handbook" to the owner and tenant of the property which explains his rights in condemnation proceedings, how the process works, and how to participate in the process. This handbook should be provided during the first meeting or notice to the owner and tenant of an interest to acquire any land, which could be subject to a condemnation proceeding.

The use of land in Minnesota is rapidly becoming politicized, just as energy, food, water, and minerals have in the last 100 years. Fifty years ago, land was thought of as a commodity to be used by the owner as he pleased without regard to neighboring or community interests. Today, land is no longer cheap and its supply has not increased either with Minnesota's population or the

demands of that population. As a result, the existing land is used much more intensively than ever before. Consequently, society as a whole has become more interdependent and land is now regarded more as a resource than a commodity.

It is axiomatic that the development and use of energy resources, whether on public or priavet land, generate conflict with other land uses. Often energy facilities are located on lands valuable for agricultural, forestry, grazing, or recreational uses. Therefore, one of the more important issues in the siting question is the compatibility of energy facilities with other land uses. In addition, the increased distances between the energy facility and the end uses of that energy demand ever increasing amounts of land for transmission corridors. Consequently, some attempt to resolving these land use conflicts or at least balancing the competing interests for the land must be made.

37. Utility companies building high voltage transmission lines must attempt negotiations with the owner on the exact placement of the towers within the route designated by the MEQB.

38. In siting high voltage transmission lines, the utility should follow property lines or section lines, whenever practical, within the route designated by the MEQB unless an alternative is negotiated with the owner. If negotiations do not result in a settlement, the commissioners should decide the exact placement of the towers.

39. The Minnesota Environmental Quality Board should amend its exclusion and avoidance area regulations to include prime agricultural land as an exemption.

40. Since the MEA and MEQB certificate of need and power plant siting decisions determine the necessity for the condemnation petition, the MEA certificate of need and MEQB power plant siting process should be completed before the eminent domain actions are commenced.

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APPENDIX I

SUMMARY OF SURVEY SENT TO INTERESTED PERSONS, REGULATORY AGENCIES, AND ELECTRICAL UTILITIES

I. INTRODUCTION

This study was undertaken by the Joint Legislative Committee on Science and Technology at the request of members of this committee and the House Select Committee on Energy. Representatives Gordon Voss, Ken Nelson, and Debbert Anderson and Senator Wayne Olhoft were the principal legislators responsible for determining the direction and scope of the study as well as the questions that were sent to interested persons, regulatory agencies, and electrical utilities.

The study was limited to electrical utilities and designed to examine how administrative and regulatory processes factored a wide variety of concerns into their decision-making. These concerns include environmental and technological variables, questions of equity for all parties, state policies, and how the public, which is defined as non-governmental, non-utility people for the purposes of this study, interacts with the decision-making process. The study was not designed to evaluate the appropriateness of any particular variable (e.g., the value of nuclear over coal power, etc.). Rather, the study evaluates the process to see if the variables and concerns of all parties are given due consideration.

In addition, the principal legislators requested that the study conduct a survey of all parties including interested persons, regulatory agencies, and electrical utilities to see if a consensus could be arrived at on any issue. The survey was not designed to resolve differences, but to obtain information on the nature of the various problems within the existing process, on the potential solutions, and to determine if there is any unanimity on the nature of the problems or their solutions by those surveyed.

Source: Reagan, Patrick L., Regulating Electrical Utilities in Minnesota, Part II: Responses and Review of Survey Questions to Interested Persons, Regulating Agencies, and Electrical Utilities, Joint Legislative Committee on Science and Technology, December, 1978 (Unpublished).

II. THE SURVEY DESIGN

The survey questions were designed to accomplish two purposes. The first purpose is to get factual information from the utilities and state agencies relating to practices and procedures on how they arrived at their decisions, descriptions of their functions and resources (staff, etc.), and projections for new facilities, rate requests, etc. for the future. The second purpose of the survey is more subjective in nature. A series of questions was designed to identify specific problem areas where the parties to electrical utility regulation proceedings (the interested persons, agencies, and utilities) believed the process was inadequate or skewed in one direction or the other. In addition, the questions were designed to elicit suggested changes in the process.

The questions were reviewed and approved by the principal legislators before the survey was distributed. As may be noted, many of the questions were rather specific in terms of offering options for suggested process changes. Many of the survey questions were the result of informal discussions with agency personnel and others who identified many thoughts and suggestions that had been floating around with regard to the process. As noted above, one of the purposes of the survey was to determine if a consensus on the problems or solutions could be established. Consequently, the questions were purposefully designed to be specific where possible, in order to ascertain if a consensus did indeed exist on these thoughts and suggestions.

Five sets of questions were designed. Many of the questions were repeated in each set. One group surveyed was the electrical utilities (S-1). All utilities including investor, cooperative, and municipal utilities were surveyed. One hundred and eighty-seven questionnaires were sent out in this group.

The second group surveyed was state agencies. One questionnaire was sent to the Minnesota Energy Agency (S-2). Another questionnaire was sent to the

Pollution Control Agency, the Department of Natural Resources, the Department of Health and the Environmental Quality Board (S-3). A final questionnaire was sent to the Public Service Commission and the Office of Consumer Services within the Commerce Department (S-4).

A final set of questions was sent to interested persons (S-5). These were individuals or groups who have participated in electrical utility regulatory proceedings of one sort or another. The names were derived from lists kept by the Secretary of State's Office, the Minnesota Energy Agency, the Environmental Quality Board, the Public Service Commission, and others. Between 350 and 400 questionnaires were sent out to interested persons.

ENERGY PROCESS STUDY S-1

Personnel Question

1. How many professional personnel are employed by your activity? Please break this down by research, EIS, enforcement, forecasting, need determination, cost analysis, conservation, alternative technologies, other.

Certificate of Need Questions

2. How do you determine need for a new facility?

3. How is the decision for determining size, type, timing, and location of new facilities, lines, and substations actually made?

4. What factors do you weigh in these decisions and how are they weighed? (Please address the factors of cost, environment, transportation, fuel source and availability, political climate and any others you use for each of the three decisions of size, type, and location).

5. Can location factors affect size and type decisions? How? Should they?

6. Should the type of facility be determined in a different manner than is now used? What criteria should be used? Is there any factor that should override a type of facility?

7. Where, ideally in the legal process should size, type, and location decisions be made?

Conservation Questions

8. Please explain your conservation program. What direction do you see your conservation program taking in the future? Should a conservation program affect the need decision or size determination? Conservation is Minnesota's energy policy: how could it affect electrical demand in the future?

9. How do you determine the "right" technology to meet end energy use needs? Include an evaluation of temperature levels and reliability as factors in the determination of technology.

Environmental Questions

10. How do you determine environmental and health impacts of proposed facilities? Be specific.

11. Are the agency position papers required to be submitted under Minnesota Statutes Chapter 116H.13 adequate for determining the health and environmental effects of a proposed facility? Why?

12. When should an EIS be done? Before the Certificate of Need is issued? After the Certificate of Need, but before the siting process commences? After the siting process, but before permits are issued for plants to be build? Never? A combination thereof (please specify)? Other?

13. What should an EIS cover? Size? Type? Location decisions? Alternate technologies? Alternative mechanisms to meet demand (conservation, price incentives, etc.)?

14. Should an EIS be done on total end use energy requirements for Minnesota? Why?

Electrical Rate Structure Questions

15. What forecasting technique or techniques do you use to determine need? Please pro-

vide a brief description on your forecasting technique.

16. When you determine your forecast for demand of electricity, do you know who the users will be and what the energy will be used for?

17. What is your projected demand for new facilities from now until 2025?

18. How do you determine your rate increase requests? How much capital investment do you have in plants, lines offices, maintenance equipment, etc.? What is the total operating expense for each plant, line, etc. each year? How have these costs changed? How do you expect them to change in the future? What is your total yearly budget?

19. Historically, what is your cost per kilowatt hour by plant and total for your company

20. Do you own or plan to buy any companies involved in fuel supply, transportation, plan construction, etc.? Do you own any other companies? Please provide a copy of your state charter, articles of incorporation, and by-laws.

21. How many rate increases have you asked for in the last ten years? How many have been granted in full or fractional amounts (please specify)? Do you have a rate increase request in progress now? If yes, for how much? Do you anticipate any rate increase requests in the near future?

22. Should the Public Service Commission have input via rate determination in the size type, and location decisions?

23. What market forces in the economic sense exist for utilities? What incentives exist for holding costs down?

Policy Questions

24. Who should make the final decision on size, type, and location decisions: the utility? An administrative agency? The legislature? Or other? Why? Please rank order the factors you feel should be considered in making the final decision.

25. Where should non-utility, non-governmental people impact in the process? At the E S stage? In courts? In hearings? Other (please specify)? Should these people be funded? Why or why not?

26. What do you feel is wrong with the existing energy process? What would you change about the process? What is the most time-consuming aspect of the process and how should it be changed?

27. In light of the recent suggestion that Minneapolis should buy NSP plants, should the government operate the utilities? Why or why not?

28. How is uncertainty in the process affected by judicial review, the hearing examiner process, and imposed time constraints? Should any of these factors be changed? If so, why? How do these factors affect uncertainty?

PR/jb
10/6/78

Personnel Question

1. How many personnel are employed by your agency? Please break this down by research, EIS, enforcement, forecasting, need determination, policy analysis, conservation, alternative energies, other. How does your agency utilize federally funded employees

Forecast Questions

2. Does the MEA determine its own forecast for electrical demand independent of electrical utilities? Do you rely on electrical utility data, data analysis, etc.? Why?

3. What forecasting technique or techniques do you use to determine need? Please provide the details on your forecasting technique.

4. When you determine your forecast for demand of electricity, do you know who the users will be and what the energy will be used for?

5. Do forecasts from different utilities vary in technique, variables used, and weight given to different variables?

6. What is the projected energy supply and demand for the next 50 years? In what form will the demand be met? How much electricity is used for heating or other low temperature purposes? What alternative ways are being considered for meeting energy demand? Should an EIS be done on total demand for Minnesota? Why?

Certificate of Need Questions

7. What is the projected demand for new facilities from now until 2025?

8. How do you determine need for a new facility?

9. How is the decision for determining size, type, timing, and location of new facilitie lines, and substations made?

10. What factors do you weigh in these decisions and how are they weighed? (Please address the factors of cost, environment, transportation, fuel source and availability, political climate, and any others you use for each of the four decisions of size, type, timing, and location).

11. Do you have the authority to alter size, type location decisions of the utility or other agencies? If so, what factors and criteria do you use? If not, should you have this authority?

12. Can location factors affect size and type decisions? How? Should they?

13. Should the type of facility be determined in a different manner than is now used? What criteria should be used? Is there any factor that should override a type of facility?

14. Where, ideally, in the legal process should size, type, and location decisions be mad

15. Can your agency change size, type, and location decisions of utilities?

16. Who should make the final decision on size, type, and location decisions: the utility? The government? The legislature? Or other? Why? Please rank order the factors you feel should be considered in making the final decision.

Conservation Questions

17. Please explain your conservation program. What direction do you see your conservatio

program taking in the future? Should a conservation program affect the need decision or size determination? Conservation is Minnesota's energy policy: how will it affect demand in the future?

18. How do you determine the "right" technology to meet end energy use requirements? Include an evaluation of temperature levels and reliability as factors in the determination of the technology.

Environmental Questions

19. How do you determine environmental and health impacts of proposed facilities? Be specific.

20. Are the agency position papers required to be submitted under Minnesota Statutes Chapter 116H.13 adequate for determining the health and environmental effects of a proposed facility? Why?

21. When should an EIS be done? Before the Certificate of Need is issued? After the Certificate of Need, but before the siting process commences? After the siting process, but before permits are issued for plants to be built? Never? A combination thereof (please specify)? Or other?

22. What should an EIS cover? Size? Type? Location decisions? Alternate technologies? Alternative mechanisms to meet demand (conservation, price incentives, etc.)?

23. Should an EIS be done on total end use energy requirements for Minnesota? Why?

Policy Questions

24. Where should non-utility, non-governmental people impact in the process? At the EIS stage? In courts? In hearings? Other (please specify)? Should these people be funded? Why or why not?

25. What market forces in the economic sense exist for utilities? What incentives exist for holding costs down?

26. What do you feel is wrong with the existing energy process? What would you change about the process? What is the most time-consuming aspect of the process and how should it be changed?

27. In light of the recent suggestion that Minneapolis buy NSP plants, should the government operate the utilities? Why or why not?

28. How is the uncertainty in the process affected by judicial review, the hearing examiner process, and imposed time constraints? Should any of these factors be changed? If so, why? How do these factors affect uncertainty?

PR/jb
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Personnel Question

1. How many personnel are employed by your agency? Please break this down by research, EIS, enforcement, forecasting, need determination, cost analysis, conservation, alternative technologies, other. How does your agency utilize federally funded employees?

Certificate of Need Questions

2. Do you have the authority to alter size, type location decisions of the utility or other agencies? If so, what factors and criteria do you use? If not, should you have this authority?

3. Can location factors affect size and type decisions? How? Should they?

4. Should the type of facility be determined in a different manner than is now used? What criteria should be used? Is there any factor that should override the type of facility?

5. Where, ideally, in the legal process should size, type, and location decisions be made?

6. How do you determine the "right" technology to meet end energy use requirements? Include an evaluation of temperature levels and reliability as factors in the determination of the technology?

Environmental Questions

7. How do you determine environmental and health impacts of proposed facilities? Be specific.

8. Are the agency position papers required to be submitted under Minnesota Statutes Chapter 116H.13 adequate to determine health and environmental effects of a proposed facility? Why?

9. When should an EIS be done? Before the Certificate of Need is issued? After the Certificate of Need, but before the siting process commences? After the siting process, but before permits are issued for plants to be built? Never? A combination thereof (please specify)? Or other?

10. What should an EIS cover? Size? Type? Location decisions? Alternate technologies? Alternative mechanisms to meet demand (conservation, price incentives, etc.)?

11. Should an EIS be done on total end use energy requirements for Minnesota? Why?

Policy Questions

12. Who should make the final decision on size, type, and location decisions: the utility? The government? The legislature? Or other? Why? Please rank order the factors you feel should be considered in making the final decision.

13. Where should non-utility, non-governmental people impact in the process? At the EIS stage? In courts? In hearings? Other (please specify)? Should these people be funded? Why or why not?

14. What market forces in the economic sense exist for utilities? What incentives exist for holding costs down?

15. What do you feel is wrong with the existing energy process? What would you change

about the process? What is the most time-consuming aspect of the process and how or should it be changed?

16. How is uncertainty in the process affected by judicial review, the hearing examiner process, and imposed time constraints? Should any of these factors be changed? If so, why? How do these factors affect uncertainty?

17. In light of the recent suggestion that Minneapolis buy NSP plants, should the government operate the utilities? Why?

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Personnel Question

1. How many personnel are employed by your agency? Please break this down by research, EIS, enforcement, forecasting, need determination, cost analysis, conservation, alternative technologies, other. How does your agency utilize federal employees?

Certificate of Need Questions

2. Do you have the authority to alter size, type location decisions of the utility or other agencies? If so, what factors and criteria do you use? If not, should you have this authority?

3. How should the type of facility be determined? What criteria should be used? Is there any factor that should override the type of facility?

4. Can the PSC use rate factors to determine size, type, and location decisions? Should it?

5. Who should make the final decision on size, type, and location decisions: the utility? The government? The legislature? Other? Why? Please rank order the factors you feel should be considered in making the final decision.

Electrical Rate Structure Questions

6. How are rate increases granted and determined for new facilities? What is the timing? How do you determine rate increase criteria?

7. How many rate increases have been granted in the last four years? Denied? Altered? Requested? Amounts before and after?

Environmental Questions

8. When should an EIS be done? Before the Certificate of Need is issued? After the Certificate of Need, but before the siting process commences? After the siting process, but before permits are issued for plants to be built? Never? A combination thereof (please specify)? Or other?

9. What should an EIS cover? Size? Type? Location decisions? Alternate technologies? Alternative mechanisms to meet demand (conservation, price incentives, etc.)?

Policy Questions

10. Where should non-utility, non-governmental people impact in the process? At the EIS stage? In courts? In hearings? Other (please specify)? Should these people be funded? Why or why not?

11. What market forces in the economic sense exist for utilities? What incentives exist for holding costs down?

12. What do you feel is wrong with the existing energy process? What would you change about the process? What is the most time-consuming aspect of the process and how or should it be changed?

13. In light of the recent suggestion that Minneapolis buy NSP plants, should the government operate the utilities? Why or why not?

14. How is uncertainty in the process affected by judicial review, the hearing examiner process, and imposed time constraints? Should any of these factors be changed? If so, why? How do these factors affect uncertainty?

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Certificate of Need Questions

1. How should the type of facility be determined? What criteria should be used? Is there any factor that should override the type of facility?

2. Can location factors affect size and type decisions? How? Should they?

3. Who should make the final decision on size, type, and location decisions: the utility? The government? The legislature? Or the public? Why? Please rank order the factors you feel should be considered in making the final decision.

4. When, ideally, in the legal process should size, type, and location decisions be made?

5. How do you determine the "right" technology to meet end use energy requirements? Include an evaluation of temperature and reliability as factors in the determination of the technology.

Environmental Questions

6. How do you determine environmental and health impacts of proposed facilities? Be specific.

7. When should an EIS be done? Before the Certificate of Need is issued? After the Certificate of Need, but before the siting process commences? After the siting process, but before permits are issued for plants to be built? Never? A combination thereof (please specify)? Or other?

8. What should an EIS cover? Size? Type? Location decisions? Alternate technologies? Alternative mechanisms to meet demand (conservation, price incentives, etc.)?

9. Are the position papers required to be submitted under Minnesota Statutes Chapter 116H.13 adequate for determining the health and environmental effects of a proposed facility? Why?

10. Should an EIS be done on total end use energy requirements for Minnesota? Why?

Policy Questions

11. Where should non-utility, non-governmental people impact in the process? At the EIS stage? In courts? In hearings? Other (please specify)? Should these people be funded? Why or why not?

12. What market forces in the economic sense exist for utilities? What incentives exist for holding costs down?

13. What do you feel is wrong with the existing energy process? What would you change about the process? What is the most time-consuming aspect of the process and how or should it be changed?

14. In light of the recent suggestion that Minneapolis should buy NSP plants, should the government operate the utilities? Why or why not?

15. How is uncertainty in the process affected by judicial review, the hearing examiner process and imposed time constraints? Should any of these factors be changed? If so, why? How do these factors affect uncertainty?

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III. THE SURVEY RESULTS

Of the 350 to 400 questionnaires sent out to interested persons, only 18 responses were received. All state agencies that in one fashion or another regulate utilities responded. Only 9 of 187 questionnaires sent to the electrical utilities were returned. The results from the public and utilities (about 5%) are disappointing. However, most major utilities did respond.

Ten questions asked of nearly all recipients of the questionnaires are summarized in the following 10 tables. The responses to the questions and many comments are provided. References are provided on each question number from each questionnaire grouping and for each respondent. The specific responses to the questionnaires are contained in section four of this report. The questionnaires are included with the responses and located just prior to them (see table of contents).

The following comments and conclusions are drawn from the limited responses received. The conclusions are not valid in the statistical sense, nor was the questionnaire designed with statistical analysis in mind. Rather, as noted previously, the survey was designed to determine if a consensus existed on the problems or solutions to them.

Table I-1 shows that 4 of the 6 people who responded to the question believe that health and environmental factors should override the type of facility.

Table I-2 indicates that 15 of 16 who responded to the questions feel that location factors can affect size and type decisions. The most common specific factors include environmental effects, availability of cooling water, and the ability to utilize district heating.

Table I-3 indicates that many interested persons and the regulatory agencies feel that size, type, and location decisions should be made by the regulatory agencies. The utilities felt that they should make these decisions. Nobody felt that the legislature should decide. Two interested persons felt the public should

decide. There were 14 responses to this question. Most respondents felt that environmental, health, economics, and land use factor should be included in these decisions.

Table I-4 shows that 4 of 9 respondents felt that size, type, and location should be considered together. Of 9 respondents, 6 felt size and type should be considered independent of need. Only the MEA liked the present situation (size and type with need, independent of location). One felt that size, type, and location should be considered with need, and one felt that size, type, and location should not be decided by the government.

Table I-5 shows that 8 of 23 feel that the EIS should be done before need. Another 8 of 23 feel that the EIS should be done after need, but before the siting decision. Only 7 of 23 agreed with the present system which is that the EIS be done after need and after siting, but before permits are issued. One respondent thought no EIS should be done. There was no unanimity within any group. However, 15 of 23 felt that the EIS should be done earlier than is now the case.

Table I-6 shows that the majority of respondents to the survey feel that the EIS process should cover more than just location. Of 17 respondents, 11 felt that size and type should be included with location in the EIS. Other respondents felt that alternative technologies should also be included in the EIS process. Of these 10 respondents, 4 felt that alternative mechanisms such as price incentives and conservation should also be included. Others felt that economics (2), human lifestyle (1), social (1), and transmission lines (1) should also be included in the EIS. The Supreme Court stated that the MEQB should develop some independent expertise for evaluating any EIS.

Table I-7 shows that of the 9 who responded, about half feel that the position papers required to be submitted under M.S. §116H.13 are inadequate for determining health and environmental effects of a proposed facility.

Table I-8 shows that about 40% (6 of 15) believe that an EIS should be done on total end use energy requirements for Minnesota.

Table I-9 shows that 10 of 17 respondents believe that the public should be funded, at least to some extent, in order to participate in the decision-making process. Of 13, 10 respondents felt they should participate at the EIS stage. Of 8 respondents, 4 felt they should participate in court. Of 18 respondents, 16 felt they should participate at the hearing stage. Two suggested the rulemaking stage, 3 the planning stage, and 2 not at any stage.

Table I-10 shows that no respondents (13 of 13) felt that the government should operate the utilities.

IV. THE SURVEY RESPONSES

Below are the responses to the surveys with the appropriate questionnaire proceeding them.

TABLE I-1

QUESTION: IS THERE ANY FACTOR THAT SHOULD OVERRIDE THE TYPE OF FACILITY?*
(This is question 1 of the public group, question 4 of the MPCA group, question 3 of the PSC group, question 13 for MEA, and question 6 of the utility group.)

GROUP	NUMBER RESPONDING	NUMBER NO RESPONSE OR INDETERMINATE
Public	4	14
Government	1	6
Utilities	1	8

RESPONSE:

GROUP	YES		NO	IF YES, WHAT
Public	Supreme Court	(A1)		- Non-proliferation of power lines
	CACWU	(A2)		- Public attitudes towards the technology
	J. Waelti	(A5)		- Safety and human health
	J. Meissner	(A17)		- Safeguarding the environment
Government	MPCA	(B1)		- Human and environmental effects
Utilities	UPA	(C1)		- Demonstrated health effects

* The original question stated: "How should the type of facility be determined? What criteria should be used? Is there any factor that should override the type of facility?" The responses to the first two parts of this question are reserved for Part I of this report.

TABLE I-2

QUESTION: CAN LOCATION FACTORS AFFECT SIZE AND TYPE DECISIONS? HOW? SHOULD THEY?
(This is question 2 of the public group, question 3 of the MPCA group, question 3 of the PSC group, question 12 for MEA, and question 5 of the utility group.)

GROUP	NUMBER RESPONDING	NUMBER NO RESPONSE OR INDETERMINATE
Public	8	10
Government	3	4
Utilities	5	4

RESPONSE:

GROUP	YES		NO		COMMENT
Public	Supreme Court	(A1)			- Human impact, environmental impact, reliability, and cost
	CACWU	(A2)			- Availability of cooling water, transmission distance, transportation distance, environment (air, water, land), public health, district heating, land use priorities, critical areas, farmland, public attitudes
	J. Waelti	(A5)			- Environmental effects
	M. Walton	(A6)			- Ground water supply, use district heating
	MN Dept. Ed.	(A10)			- Avoid taking farmlands
	G. Lynne	(A11)			- Air, population density, land use needs should override
			D. Wendt	(A14)	-
			N. Bodin	(A18)	- Size and type predetermine location, not vice-versa
Government	MPCA	(B1)			- Air & water constraints, district heating
	MEQB	(B4)			- Air & water constraints, district heating
	MEA	(B7)			- Air & water constraints, district heating
Utilities	UPA	(C1)			- Cooling water, fuel availability, transmission distance
	CPA	(C2)			- Cooling water, fuel availability, air, transmission distance, land use
	Kandiyohi	(C3)			- Size - no; Type - fuel availability
	Runestone	(C6)			- Ecology, scenic and historical sites
	MUA	(C7)			- Population center or wilderness area

TABLE I-3

QUESTION: WHO SHOULD MAKE THE FINAL DECISION ON SIZE, TYPE, AND LOCATION DECISIONS? THE UTILITIES? THE GOVERNMENT? THE LEGISLATURE? OR THE PUBLIC? WHY? PLEASE RANK ORDER THE FACTORS YOU FEEL SHOULD BE CONSIDERED IN MAKING THE FINAL DECISION.
(This is question 3 of the public response, question 12 of the MPCA group, question 5 of the PSC group, question 16 for MEA, and question 24 of the utility group.)

GROUP	NUMBER RESPONDING	NUMBER NO RESPONSE OR INDETERMINATE
Public	5	13
Government	4	3
Utilities	5	4

RESPONSE:

GROUP	UTILITIES	GOVERNMENT	LEGISLATURE	PUBLIC	COMMENT
Public				CACWU (A2)	- If 50% or more opposed and no not utilize 50% of facility with geographic region, then no facility on community, county, or regional level
		M. Walton (A6)			- No comment
		MN Dept. Ed. (A10)			- Protect farmland
		D. Wendt (A14)			- No comment
				W. Bradley (A15)	- Local community
	N. Bodin (A18)				- No comment
Government		MPCA (B1)			- Health, air, water, economics, land
		MDH (B2)			- Engineering, demand, health, environment, economics, social
		MEQB (B4)			- No rank
		MEA (B7)			- Economics, environment, technology availability, fuel availability, power deficit
Utilities	UPA (C1)				- Cost, environment, reliability
	Kandiyohi (C3)				- Economics, energy conservation, fuel supply, environment, cost and availability of land, land type, transmission line acceptance, rates
	Crow Wing (C4)				- No comment
	Federated (C5)				- No comment
	Runestone (C6)				- No comment

TABLE I-4

QUESTION: WHEN, IDEALLY, IN THE LEGAL PROCESS SHOULD SIZE, TYPE, AND LOCATION DECISIONS BE MADE? (This is question 4 of the public response, question 5 of the MPCA group, question 14 for MEA, and question 7 for the utility group.)

GROUP	NUMBER RESPONDING	NUMBER NO RESPONSE OR INDETERMINATE
Public	5	13
Government	2	3*
Utilities	2	7

RESPONSE:

GROUP	RESPONDENT		COMMENT
Public	CACWU	(A2)	- Size, type, and location together, after need, after EIS, as part of siting decision, may be done concurrently with need
	M. Walton	(A6)	- Size, type, and location together, after need
	P. Mead	(A13)	- Size, type, and location with need
	N. Nuessmeier	(A16)	- Size, type, and location together, after need
	N. Bodin	(A18)	- Size, type, and location should not be decided by government, utility decision
Government	MPCA	(B1)	- Size and type with location or concurrently
	MEA	(B7)	- Size and type with need; location separate
Utilities	UPA	(C1)	- Size and type after need
	MUA	(C7)	- Type should be separate from need

* The PSC group was not asked this question.

TABLE I-5

QUESTION: WHEN SHOULD AN EIS BE DONE? BEFORE THE CERTIFICATE OF NEED IS ISSUED? AFTER THE CERTIFICATE OF NEED, BUT BEFORE THE SITING PROCESS COMMENCES? AFTER THE SITING PROCESS, BUT BEFORE PERMITS ARE ISSUED FOR PLANTS TO BE BUILT? NEVER? A COMBINATION THEREOF? OR OTHER?
(This is question 7 of the public group, question 9 of the MPCA group, question 8 of the PSC group, question 21 for MEA, and question 12 of the utility group.)

GROUP	NUMBER RESPONDING	NUMBER NO RESPONSE OR INDETERMINATE
Public	15	3
Government	4	3
Utilities	4	5

RESPONSE:

GROUP	RESPONDENT		BEFORE NEED	AFTER NEED BEFORE SITING	AFTER SITING BEFORE PERMITS	NEVER	COMBINATION
Public	Supreme Court	(A1)	X				
	CACWU	(A2)	X	or X			
	G. Glass	(A3)	X				
	J. Waelti	(A5)		X			
	M. Walton	(A6)		X			
	P. Gersmehl	(A9)	X				
	MN Dept. Ed.	(A10)		X			
	G. Lynne	(A11)		X			
	P. Schwartz	(A12)			X		
	P. Mead	(A13)	X				
	D. Wendt	(A14)			X		
	W. Bradley	(A15)				X	
	N. Nuessmeier	(A16)		X			
	J. Meissner	(A17)		X			
	N. Bodin	(A18)		X			
Government	MPCA	(B1)	X				
	MDH	(B2)			X		
	MEQB	(B4)			X		
	MEA	(B7)			X		
Utilities	UPA	(C1)			X		
	CPA	(C2)			X		
	Runestone	(C6)	X				
	MUA	(C7)	X				

TABLE I-6

QUESTION: WHAT SHOULD AN EIS COVER? SIZE? TYPE? LOCATION DECISIONS? ALTERNATE TECHNOLOGIES? ALTERNATIVE MECHANISMS TO MEET DEMAND (CONSERVATION, PRICE INCENTIVES, ETC.?)
(This is question 8 of the public group, question 10 of the MPCA group, question 9 of the PSC group, question 22 for MEA, and question 13 for the utility group.)

GROUP	NUMBER RESPONDING	NUMBER NO RESPONSE OR INDETERMINATE
Public	10	8
Government	3	4
Utilities	4	5

RESPONSE:

GROUP	RESPONDENT		SIZE	TYPE	LOCATION	ALTERNATE TECHNOLOGIES	ALTERNATIVE MECHANISMS	OTHER
Public	Supreme Court	(A1)						X - MEQB should have independent expertise
	CACWU	(A2)	X	X	X	X	X	
	J. Waelti	(A5)	X	X	X	X		
	M. Walton	(A6)	X	X	X	X	X	
	P. Gersmehl	(A9)			X		X	X - Economics & social
	MN Dept. Ed.	(A10)	X	X	X			
	G. Lynne	(A11)	X	X	X	X		X - Human lifestyle
	P. Mead	(A13)	X	X	X	X		
	D. Wendt	(A14)	X	X	X	X		X - Economics
	J. Meissner	(A17)	X	X	X	X		
Government	MPCA	(B1)	X	X	X	X		X - timing, transmission lines
	MDH	(B2)	X	X	X	X		
	MEA	(B7)			X			
Utilities	UPA	(C1)			X			
	CPA	(C2)			X			
	Runestone	(C6)	X	X	X	X	X	
	MUA	(C7)			X			

TABLE I-7

QUESTION: ARE THE POSITION PAPERS REQUIRED TO BE SUBMITTED UNDER M. S. § 116H.13 ADEQUATE FOR DETERMINING THE HEALTH AND ENVIRONMENTAL EFFECTS OF A PROPOSED FACILITY? WHY?
(This is question 9 of the public group, question 8 of the MPCA group, question 20 for MEA and question 11 of the utility group.)

GROUP	NUMBER RESPONDING	NUMBER NO RESPONSE OR INDETERMINATE
Public	4	14
Government	3	2*
Utilities	2	7

RESPONSE:

GROUP	YES	NO	COMMENT
Public		CACWU (A2)	- No criteria for content, no public review, location impacts size and type (not included)
	MN Dept. Ed. (A10)		-
		G. Lynne (A11)	- Each site has different needs
		N. Nuessmeier (A16)	- Power line effects
Government		MPCA (B1)	- Best estimate - does not give environmental factors equal weight
	MEQB (B4)		- Insufficient data for EIS
	MEA (B7)		- Can't do EIS because site is not known
Utilities	UPA (C1)		- Not enough decisions made for EIS
	Runestone (C6)		

* The PSC group was not asked this question.

TABLE I-8

QUESTION: SHOULD AN EIS BE DONE ON TOTAL END USE ENERGY REQUIREMENTS FOR MINNESOTA? WHY? (This is question 10 of the public group, question 11 of the MPCA group, question 23 for MEA, and question 14 of the utility group.)

GROUP	NUMBER RESPONDING	NUMBER NO RESPONSE OR INDETERMINATE
Public	9	9
Government	3	2*
Utilities	3	6

RESPONSE:

GROUP	YES		NO		COMMENT
Public	CACWU	(A2)			- Planning and evaluating alternative technologies for environmental impacts
	G. Lynne	(A11)			- For planning
	N. Nuessmeier	(A16)			- For planning
			J. Waelti	(A5)	- Not practical
			M. Walton	(A6)	- Energy directions change too much
			Mn Dept. Ed.	(A10)	- Cost, time, obsolescence due to new technologies
			D. Wendt	(A14)	- Future needs cannot be known at this time
			W. Bradley	(A15)	- Central energy planning implies inappropriate scale and type
			N. Bodin	(A18)	- Cannot predict with any accuracy total end use energy requirements
Government	MPCA	(B1)			- To show environmental impacts of alternate sources compared with conventional
			MEQB	(B4)	- EIS would be too conjectural
			MEA	(B7)	- No EIS, but environmental report on generic impacts
Utilities	UPA	(C1)			- Consideration must be given to the environmental impact of small users at specific locations
	Runestone	(C9)			- Essential to planning
			MUA	(C7)	- Situation changes too fast to be meaningful

* The PSC group was not asked this question.

TABLE I-9

QUESTION: WHERE SHOULD NON-UTILITY, NON-GOVERNMENTAL PEOPLE IMPACT IN THE PROCESS? AT THE EIS STATE? IN COURTS? IN HEARINGS? OTHER? SHOULD THESE PEOPLE BE FUNDED? WHY?
(This is question 11 of the public group, question 13 of the MPCA group, question 10 of the PSC group, question 24 for MEA, and question 25 of the utility group.)

GROUP	NUMBER RESPONDING	NUMBER NO RESPONSE OR INDETERMINATE
Public	16	2
Government	5	2
Utilities	6	3

RESPONSE:

GROUP	RESPONDENT		EIS	COURTS	HEARING	OTHER	FUNDED	COMMENT
Public	Supreme Court	(A1)	X	X	X			
	CACWU	(A2)	X	X	X	Rulemaking, planning	YES	- Necessary for equity in process
	T. Donovan	(A4)					YES	- Public cannot be constructive without funding
	J. Waelti	(A5)	X				NO	-
	M. Walton	(A6)		NO	X		NO	- Funding for notification only
	K. Lochler	(A7)	X	X	X	Early in process	YES	- For expenses, notification
	F. Smith	(A8)					YES	- Alternative is just opposition
	P. Gersmehl	(A9)				Planning		
	MN Dept. Ed.	(A10)					NO	- Public are fanatics
	G. Lynne	(A11)	X		X		YES	-
	P. Schwartz	(A12)	X		X		YES	- On study committees
	P. Mead	(A13)	X		X		YES	-
	D. Wendt	(A14)	X		X		YES	- Transportation, food only
	N. Nuessmeier	(A16)	X					
	J. Meissner	(A17)				Before	YES	- Transportation only
	N. Bodin	(A18)	NO	NO	X		NO	-
Government	MPCA	(B1)	X		X		YES	- Effective
	MDH	(B2)			X		NO	
	MEQB	(B4)			X	Planning	NO	
	PSC	(B5)			X		Through OCS/RUCU	
	MEA	(B7)			X	Rulemaking	?	
Utilities	UPA	(C1)			X		NO	
	Crow Wing	(C4)	NO	NO	NO	No Place		
	Federated	(C5)	NO	NO	NO	After decision		
	Runestone	(C6)				Input into decision, utility decides		
	MUA	(C7)		X	X	Public advocate		

TABLE I-10

QUESTION: IN LIGHT OF THE RECENT SUGGESTION THAT MINNEAPOLIS BUY NSP PLANTS, SHOULD THE GOVERNMENT OPERATE THE UTILITIES?
(This is question 14 of the public group, question 17 of the MPCA group, question 13 of the PSC group, question 27 for MEA, and question 27 of the utility group.)

GROUP	NUMBER RESPONDING	NUMBER NO RESPONSE OR INDETERMINATE
Public	8	10
Government	1	6
Utilities	4	5

RESPONSE:

GROUP	YES	NO		COMMENT
Public		J. Waelti	(A5)	-
		F. Smith	(A8)	- Possibly, under some circumstances
		MN Dept. Ed.	(A10)	- Government not efficient
		P. Schwartz	(A12)	-
		D. Wendt	(A14)	-
		N. Nuessmeier	(A16)	-
		J. Meissner	(A17)	-
		N. Bodin	(A18)	- Only if the government has a valid reason
Government		MEA	(B7)	- Government cannot operate competitively with private; cost too much
Utilities		Kandiyohi	(C3)	- Government would raise costs
		Crow Wing	(C4)	- Government not efficient
		Runestone	(C6)	-
		MUA	(C7)	-

V. LIST OF RESPONDANTS

(A1) Robert J. Sheran, Chief Justice, Minnesota Supreme Court

(A2) Rodney Loper, President, Clear Air, Clear Water, Unlimited

(A3) Gary Glass, Senior Research Chemist, Environmental Research Laboratory - Duluth, Environmental Protection Agency

(A4) Thomas L. Donovan, Sierra Club

(A5) John J. Waelti, Professor, Department of Agriculture and Applied Economics, University of Minnesota

(A6) Matt Walton, Director, Minnesota Geological Survey, University of Minnesota

(A7) Karen Lochler, Executive Director, Environmental Education Board

(A8) Frederick W. Smith, Associate Director, Center for Urban Encounter

(A9) Phil Gersmehl, Associate Professor, Department of Geography, University of Minnesota

(A10) (NO NAME), Minnesota Department of Education

(A11) Gladwin A. Lynne

(A12) Pat Schwartz

(A13) Phyllis Mead

(A14) Donovan D. Wendt, Supervisor, Bass Brook Town Board

(A15) Wendall Bradley

(A16) Norma Nuessmeier

(A17) Jan Meissner

(A18) Neal A. Bodin, Ulteig Engineers, Inc.

(B1) Sandra S. Gardebring, Executive Director, Minnesota Pollution Control Agency

(B2) Warren R. Lawson, Commissioner, Department of Health

(B3) Joseph N. Alexander, Commissioner, Department of Natural Resources

(B4) Peter Vanderpoel, Chairman, Minnesota Environmental Quality Board

(B5) Richard J. Parish, Chairman, Minnesota Public Service Commission

(B6) Tobey Lapakko, Director, Office of Consumer Services

(B7) John P. Millhone, Director, Minnesota Energy Agency

(C1) Philip O. Martin, General Manager, United Power Association (UPA)

(C2) T. V. Lennick, General Manager, Cooperative Power Association (CPA)

(C3) Axel H. Johnson, Manager, Kandiyohi Electric Power Association

(C4) Louis B. Polasik, General Manager, Crow Wing Cooperative Power and Light Company

(C5) Marvin J. Johnson, Manager, Federated Rural Electric Association

(C6) Joseph O. Perino, General Manager, Runestone Electric Association

(C7) R. G. Kirkham, Executive Director, Minnesota Municipal Utilities Association

(C8) K. A. Carlson, Chairman, Environmental Committee, Minnesota/ Wisconsin Power Suppliers Group, Minnesota Power and Light Company

(C9) M. L. Anderson, Manager, Public Affairs, Northern States Power Company

APPENDIX II

RECOMMENDATIONS OF THE "FINAL REPORT OF THE HOUSE SELECT COMMITTEE ON ENERGY."

A. Renewable Energy and Conservation, General

1. It is recommended that the Legislature create within the Minnesota Energy Agency an Energy Finance Board (EFB). The EFB would make loans to individuals and businesses for construction of economically feasible renewable energy systems, and for conservation projects. In order to make such loans, the EFB should be granted revenue bonding authority. In addition, the EFB should be granted authority to provide loan guarantees to lending institutions which loan funds to individuals and groups for the construction of renewable energy systems and for energy conservation projects. Systems that qualify for loans would include: active and passive solar systems; wood burning systems (including wood-fired electrical generating plants); hydro-electric retrofit projects; gasohol plants; earth sheltering systems; etc. No system would qualify for a loan unless it is deemed to be economically viable enough to repay the loan.

2. It is recommended that the Legislature instruct the Department of Economic Development to work to the maximum extent of its statutory authority to promote and support small business establishments involved primarily in the production, processing, or marketing of renewable energy fuels or equipment designed to utilize renewable energy sources.

3. It is recommended that the Legislature fund a study of the long-range impacts of developing renewable energy systems on jobs and the economy of Minnesota.

4. It is recommended that the Legislature (a) remove all state taxes which impede the utilization of renewable energy sources and (b) provide tax incentives for development of renewable energy systems by the following:

   (a) All renewable energy systems should be exempted from property taxes.

   (b) All materials used in renewable energy systems should be exempted from state sales taxes. This could be accomplished by means of a refundable credit on state income taxes equal to the amount of sales tax paid on materials used in renewable energy systems.

   (c) An investment credit, similar to the pollution control credit, should be allowed to stimulate investment in renewable energy systems.

Source: Final Report of the House Select Committee on Energy, Minnesota State Legislature, January 15, 1979.

5. It is recommended that federal tax credits granted to Minnesota residents for energy conservation and renewable energy systems not be taxed by Minnesota as income.

6. It is recommended that the Legislature enact a 20 percent tax credit, up to a maximum of $2,000 per unit, for the purchase price of renewable energy source property as defined in the Federal Energy Tax Act of 1978.

7. It is recommended that the Legislature enact a ten percent tax credit up to a maximum of $200 per unit for the cost of insulation and other energy conserving components (as defined in the Energy Tax Act of 1978) to any residential structure built or substantially completed prior to 31 January 1976. The credit would be available for necessary materials and labor used to improve the energy efficiency of owner-occupied or rental properties. The credit would be granted for the tax year in which the expense is incurred, beginning with the effective date of this act.

8. It is recommended, in order to encourage conservation and the commercialization of renewable energy systems, that a pilot Energy Extension Agent Program be started, with agents serving both rural counties and suburban and urban localities. The agents would be required to have a broad knowledge of the practical application of renewable energy systems and conservation practices, and would provide advice and information to interested persons or organizations. The energy extension agents would work with individuals, groups, businesses and local units of government on a one-to-one basis, or on a group basis, in much the same manner as agricultural extension agents work.

9. It is recommended that the Legislature require that all future state buildings, whenever it appears economical considering the life cycle costs of the buildings, make maximum use of renewable energy systems such as active and passive solar, earth sheltering, etc., provided that such systems do not interfere with the intended function of the building. Plans for all buildings should be drawn up after consultation with the Minnesota Energy Agency (MEZ) and final plans must be approved by the MEA prior to the start of construction. Local units of government and school districts also should be encouraged to submit building plans to the MEA for review and comment on potential integration of renewable energy systems.

10. It is recommended that the Legislature charge the Department of Administration, in consultation with the Minnesota Energy Agency, with conducting a study of existing state buildings to determine which buildings could be economically retrofitted with renewable energy systems. They should report their findings, along with recommendations and cost estimates, to the Legislature.

11. It is recommended that the Legislature fund a study, through the Minnesota Energy Agency, of the effects of zoning practices and building codes on the utilization of renewable energy systems. The MEA should report back to the Legislature with recommendations.

12. It is recommended that the Department of Administration, Building Code Division, in cooperation with the Minnesota Energy Agency, perform a study of the current State Building Code to determine if the minimum amount of glazing (windows) required for residences could be reduced without increased risks to health and safety.

13. It is recommended that the Department of Education, in cooperation with the Minnesota Energy Agency and the Building Code Division of the Department of Administration, design an educational course for building code inspectors on the proper installation and operation of wood burning appliances and solar energy systems. All building inspectors would be required to take such a course, which should be financed by the state. Building code inspectors could inspect wood burning and solar units for individuals, upon request, for safety and proper installation. Only units which are certified as properly installed could receive the tax breaks recommended in Number 6 above. Insurors should be prevented from increasing rates for homeowners who use wood burning appliances that have been certified by a building inspector as being properly installed.

14. It is recommended that the state examinations for architects and engineers include questions showing that applicants for licensure have knowledge of energy efficient design, materials, and equipment including the use of passive solar technology. It also is recommended that the State Board of Architecture, Engineering, Land Surveying and Landscape Architecture establish a procedure for ensuring that currently licensed architects are knowledgeable about energy efficient design, materials, equipment and passive solar technology.

15. It is recommended that the Legislature fund a study by the Minnesota Energy Agency to examine the costs and feasibility of establishing a rating system for classes of renewable energy systems. Such a rating system would make available to the public information on the cost effectiveness and energy efficiency of various brands and types of solar energy systems, wind energy systems, wood-fired heating/cooking appliances, and other renewable energy systems. The MEA study also would identify present sources of reliable rating information and their current utilization by the public.

16. Small scale projects demonstrating the application of renewable energy systems are important vehicles for energy conservation, education and research. The federal government has given minimal support for such projects. It is recommended that the Legislature move more aggressively in this area, giving particular emphasis to energy demonstration projects specifically related to Minnesota's climate and natural resources.

    (a) The funding level for renewable energy demonstration projects should be raised to $2 million per biennium. This appropriation should include funds for the evaluation of funded projects.

    (b) The Legislature should give greater direction to the Minnesota Energy Agency concerning the type of demonstration projects to be funded. High priority should be given to demonstration projects involving wood, passive and active solar, earth sheltering, biomass utilization and flywheel storage. Medium priority should

be given to projects involving gasohol and hydro-electric retrofit. Low priority should be given to products involving peat and wind. The state should continue to fund a variety of renewable energy demonstration projects so that different alternatives, appropriate to different parts of the state, are developed.

(c) The Minnesota Energy Agency should be given authority to actively solicit grant proposals for specific types of demonstration projects so that greater direction can be given to the demonstration project program.

(d) The Legislature should require that demonstration projects be dispersed geographically throughout the state to provide easy access to interested persons wherever they live.

(e) High priority should be given to projects conducted by small non-institutionally affiliated entrepreneurs, i.e., "backyard inventors."

B. Renewable Energy, Solar

17. It is recommended that the Legislature encourage the Minnesota Housing Finance Agency (MHFA) to increase its activities in the area of financing solar active and solar passive energy systems on residences eligible for construction or home improvement with grants and loans. Wherever feasible, solar energy systems should be included among energy conserving measures applied to all housing units subsidized by the MHFA. The Legislature should further appropriate funds to serve as security for MHFA financed loans for solar and renewable energy equipment used by eligible low and moderate income persons and families in their dwellings.

18. It is recommended that the Legislature develop and codify definitions for active solar energy systems and passive solar energy systems.

19. It is recommended that the Legislature instruct the Department of Administration to amend the state building code to urge that all new single family residences and duplexes be constructed in a manner permitting the installation of solar active energy systems, including but not limited to a roof pitch and directional alignment suitable for retrofitting with solar energy collecting devices. It is further recommended that local zoning ordinances be considered which would encourage construction techniques and building designs that permit retrofit with solar active energy systems.

20. It is recommended that the Legislature consider a sun rights nuisance clause allowing an action to be brought, similar to the clause deleted from the 1978 solar portion of the Omnibus Energy Bill.

21. It is recommended that the Legislature direct the Minnesota Energy Agency to expand its development and distribution of information on the benefits and technology of passive solar energy systems. Information suitable for builders, designers, and building code inspectors, and information of a less technical nature suitable for distribution to the general public should be prepared.

22. It is recommended that the plumbing system in new single family residences be required to include fittings to facilitate the future hook-up of a solar water heating system.

C. Renewable Energy, Wood

23. It is recommended that the Legislature conduct a study of state-owned heating plants which could be economically converted to the burning of wood and finance such conversions.

24. The technology and economic feasibility of small-scale wood fired generating facilities appears to exist. It is recommended that the Legislature establish and fund a task force made up of individuals from the Minnesota Energy Agency, the Department of Economic Development, and the Department of Natural Resources to research the feasibility of a small to medium-sized wood fired electrical generating plant. The task force should make recommendations to the Legislature on: the advisability of such a plant or plants; best location of such plants; control and ownership of such plants; financing strategies for such plants; the existence of a long-term fuelwood supply; potential environmental effects of such plants; the timber leases and other miscellaneous issues surrounding the establishment of such a plant. Consideration should be given in the study to the use of district heating in connection with electrical generation.

25. It is recommended that any municipality or group of municipalities operating a program for diseased tree removal be encouraged to make available to members of the general public any and all tree material that may be useful as firewood. The municipality shall establish appropriate procedures to be followed by the public when engaged in the collection of firewood. These procedures shall include consideration of personal safety factors and the necessity to limit the spread of tree diseases. The Minnesota Energy Agency shall develop suggested guidelines for municipal programs to offer firewood to members of the general public.

26. It is recommended that the Legislature prevent any municipality from restricting fuelwood storage unless such storage would present a disease or sanitation problem.

27. It is recommended that when any regulated public utility, any agency or department of the state of Minnesota, or any local unit of government cuts wood usable as firewood, members of the general public be given an opportunity to harvest the firewood for personal use. The MEA would promulgate appropriate rules for offering firewood to the public.

28. It is recommended that the Legislature strongly promote forestation of plains areas in Minnesota and explore the possibility of transplanting trees from densely forested areas to sparsely forested areas of the state.

29. It is recommended that the Legislature encourage, by action of the appropriate standing committees, the planting and management of wind-breaks to reduce energy loss from buildings.

D. Conservation, Energy Audits of Public Buildings

30. It is recommended that the Legislature redefine the term "survey" in the Statutes so that it is broadened to conform to the pluralistic meanings of audit. The public building audit program should be structured in such a way that all schools and local governments would complete the inexpensive "building energy report" and would then do a mini-audit or a maxi-audit only if the building energy report indicated a need to pinpoint opportunities for energy savings. This change would result in great financial savings to schools and local governments which, under current interpretation of the law, are required to perform maxi-audits on all buildings.

E. Renewable Energy, Other Sources (Methane, Hydro Power, Gasohol, Wind)

31. It is recommended that the Legislature appropriate from the general fund to the Minnesota Energy Agency for the biennium beginning 1, July 1979, the sum of $60,000 to conduct an analysis of the potential for methane production from urban solid waste, sewage sludge and diseased wood, insofar as similar studies are not being carried out by the federal government or other states. In the event that such studies are identified, the MEA shall monitor or cooperate in those parallel studies.

32. It is recommended that the Legislature fund a thorough inventory and assessment of the energy and economic potential of existing dam sites in Minnesota. It is further recommended that the Minnesota Energy Agency be instructed to study and monitor new developments in the technology of hydroelectric generation and hydromechanical power utilization, particularly those involving small scale and low head applications.

33. It is recommended that the Legislature give ongoing consideration to the economic and energy feasibility of producing and using gasohol in Minnesota. It is also recommended that the state investigate the possibility of implementing a gasohol demonstration project in Minnesota.

34. It is recommended that the Legislature explore the potential use of existing facilities capable of the manufacturing of alcohol (e.g., sugar beet processing plants and distilleries) for the production of gasohol.

35. It is recommended that the Legislature assess the potential of wind as an energy source for Minnesota.

F. Emergency Energy Assistance

36. It is recommended that the Legislature amend Chapter 290A (Circuit Breaker) by adding provisions for an income-adjusted credit for the cost of heating fuels. The fuel credit would be refunded in one annual lump sum as an addition to the income-adjusted homestead credit.

37. It is recommended that as an early priority in the 1979 Session, the Legislature determine the scope and impact of any existing federal fuel

assistance programs. The Legislature then should design a state-funded program to supplement and/or broaden federal programs to assure that Minnesota citizens are not denied heating fuel because of a legitimate inability to pay for the fuel. The guidelines for any such assistance programs should not contain disincentives to the weatherization of residences affected by the assistance programs.

38. It is recommended that the Legislature establish an on-going program of fuel cost assistance to aid low and fixed income persons and families. Such a program should contain some or all of the following features: statewide availability covering all fuels; a residency requirement (in a given housing unit) of not more than three months; energy assistance payments to be made monthly throughout the winter months; and needy state residents should qualify regardless of eligibility for other public assistance programs. The guidelines for such a fuel assistance program should not contain disincentives to the weatherization of residences affected by the assistance program.

G. Utilities and Utility Regulation

39. It is recommended that the Public Service Commission be required to report to the Legislature by 15 March of each year on the utility rate cases during the previous calendar year in which the final Commission order differed significantly from the recommendations of the Public Hearing Examiner. The report shall include reasons for differences between the Examiner's recommendations and the Commissioner's final order.

40. It is recommended that the appropriate standing committee or committees of the 1979 Session look into some apparently serious problems with the organization and operation of the Public Service Commission and the Department of Public Service. Realizing that the Legislative Audit Commission (LAC) is currently involved in a program evaluation of the Commission and Department, the suggested legislative investigation could, in part, focus on following up recommendations of the LAC report. Consideration should also be given to providing permanent, independent staffing for the Public Service Commission rather than continuing the shared staffing arrangement that presently exists.

41. It is recommended that the Legislature direct the Public Service Commission to forward to the Board of Residential Utility Consumers (BRUC), Consumer Services Section, Department of Commerce, a copy of all fuel cost adjustment filings. The BRUC will review all filings and seek Commission action if costs and expenses included in an adjustment appear to be unjustified.

42. It is recommended that the Legislature prohibit termination of residential utility service or fuel oil or LP gas deliveries during winter months. This prohibition would be contingent upon minimum monthly "good faith" payments by the consumer to the supplier as determined by Public Service Commission rule. Such a proposal should include consideration of the following major items: (a) Should be designed in such a way that it meets the needs of those persons and families for

whom it is intended; (b) Should not provide consumers with an incentive for neglecting fuel bills that could otherwise be paid; (c) Should not cause an increase in rates of customers who pay promptly to cover the expenses of a larger number for late or uncollectable accounts; and (d) Should not cause utility revenues to deteriorate to the extent that bond ratings fall.

43. It is recommended that Construction Work in Progress (CWIP) not be included in the rate base of regulated utilities.

44. It is recommended that all charitable contributions made by a regulated utility be excluded from the rate base.

45. It is recommended that the Legislature continue to allow rates under bond but require that all refunds for overcharges (collected under bond) be made to consumers before the utility can file a subsequent rate increase request.

46. It is recommended that the Legislature amend current statutes to require that the Public Service Commission prepare guidelines or a formula for the preliminary refund to rate payers of overcharges collected under bond. At the time of the Commission's Decision and Order (not more than 12 months after the rate request filing), the utility would make customer refunds based on the guidelines or formula. If there were rehearings or appeals, a portion of the rates originally requested by the utility would continue to be collected under bond even though the initial refund procedure was activated. When the ultimate decision and rate schedule are determined, the Commission would order refund of the additional (beyond the first 12 months) excess revenues collected under bond.

47. It is recommended that the Public Service Commission be allowed to continue its present practice of ordering refund procedures based on consideration of the accounting capabilities of the individual utility.

48. It is recommended that the appropriate committees of the Legislature monitor current Public Service Commission studies to determine how utilities and customers would be affected by optional rate schemes. In addition the Legislature should direct the Commission to require that selected utilities offer optional rate schemes (including time-of-day metering, peak load pricing, and dual metering) to a certain number of customers in each user class. The schemes would be offered on an experimental basis to determine actual customer response and the cost impacts for both the utility and the customer.

49. It is recommended that the Public Service Commission allow rate structures within the residential class which encourage effective load management.

50. It is recommended that all utility customers be assessed a periodic customer or service charge. The service charge is intended to cover a portion of the costs incurred by the utility for customer metering equipment, meter reading, billing and record keeping. The amount of the charge should be clearly and fully disclosed on each customer billing statement.

51. It is recommended that the Public Service Commission approve all procedures by which utilities estimate customer energy usage. The number of consecutive months in which estimating is allowed should be limited.

52. Current rate structures may act as a disincentive to the use of renewable energy systems. Widespread use of renewable energy systems could have an important impact on utility companies. It is recommended that the Legislature fund a study, through the Minnesota Energy Agency, of the potential impacts of the widespread use of renewable energy systems on utilities and utility rate structures.

H. Miscellaneous

53. It is recommended that the Legislature clearly define powers and procedures to be used in the event of an energy supply emergency as defined in Minnesota Statutes §116H.09.

54. It is recommended that the Legislature appropriate required matching funds for the completion of Minnesota Energy Agency studies to determine the feasibility of large scale hot water district heating in the metropolitan area.

55. It is recommended that the Legislature discourage the discontinuation of district heating utility operations until an engineering and financial study has shown that termination is the most appropriate action. In this respect, the Legislature should fund part or all of the cost for studies to evaluate options open to financially troubled district heating utilities. Further, it might be appropriate for the Legislature to cover part or all of the operating losses incurred by municipal district heating utilities during the first two years that feasibility studies are being performed.

56. It is recommended that the Legislature support, through the University appropriation process, continued development of the University's district heating and power project (Grid-ICES).

57. It is recommended that local units of government be precluded from prohibiting earth sheltered construction and be allowed to grant variances where feasible for earth sheltered homes. The Legislature should fund a study of possible building code barriers to increased utilization of earth sheltering technology.

58. It is recommended that the Minnesota Energy Agency monitor and support research into methods of utilizing coal in economical and environmentally satisfactory ways. The technologies that appear to be particularly well suited to the Minnesota situation because of coal source, air quality standards, etc., should receive highest priority.

59. It is recommended that the Legislature fund a study of potential problems relating to the state's responsibility for decommissioning nuclear power plants at the end of their productive lives. The study should identify strategies for decommissioning plants. In addition, the study should produce recommendations on who should pay the cost of decommissioning nuclear power plants and what role the state should play in assuring that proper financial planning is carried out to pay for decommissioning.

APPENDIX III

RECOMMENDATIONS OF THE POWER PLANT SITING ADVISORY COMMITTEE

The following are recommendations from the 1977-78 General Power Plant Siting Advisory Committee (PPSAC) to the Legislature requiring statutory changes or appropriations with respect to electrical facilities and energy.

1. Citizen Advisory Committee:

   The PPSAC feels that the establishment of a similar committee to advise the MEA would be very valuable since the granting of the certificate of need begins the whole process of constructing a new electric facility. We suggest the following functions and characteristics for this committee:

   a. Advise the agency on its forecast and examine assumptions on which the forecast is based;

   b. Participate in actions on specific certificate of need applications and become a party if it wished as provided in EA 506 (a) to federal, state, and local agencies;

   c. Be composed of citizen members from all over the state who are not necessarily technical experts on questions of need;

   d. Function to educate agency officials and staff on citizen concerns and educate the public on the importance of decisions made during the need process; and

   e. Advise the agency on specific aspects of the need process, such as public participation and methods of improving public understanding of need.

Source: Power Plant Siting Advisory Committee, Recommendations, MEQB, January 26, 1978.

Our committee has discussed at length methods of citizen involvement in the need, siting, and routing processes. We have heard expressions that citizens do not usually become involved in the certificate of need hearings unless they are aware of a specific proposed location for a facility. At the present time site designation follows need certification. We have also heard that the technical issues involved in need and forecasting are difficult for the public to understand. The questions addressed at the certificate of need stage are directly related to energy conservation, and the social and environmental costs of energy growth. Some effective method of citizen involvement at this stage must be found because ultimately it is individual citizen actions that determine energy growth. Our committee believes the establishment of this advisory committee is one step toward improvement. The Energy Agency has advised us that availability of funds for such a committee is a stumbling block. We request that these funds be appropriated and that Ch. 116H.13 be revised as needed to establish the committee.

2. Public Advisor:

The committee recommends that the provision in the PPS Act for a public advisor be expanded as a concept to include the certificate of need process. The committee does not recommend that a public advisor simply be added to the Energy Agency, since this might contribute to the segmentation of the process of siting plants and routing lines. The public advisor should be involved from need through siting and routing. We recognize that this is, in effect, calling for the establishment of an office of public advisor since one person could not effectively handle the whole process.

Much of the background considerations in support of the establishment of a citizens advisory committee apply to this recommendation as well. Also, it is our determination that the logic that supported the provisions for a public advisor in the amended PPS Act also apply to the certificate of need process, perhaps to an even greater degree because need is the critical first step. The public advisor would function in the same manner as under the PPS Act.

3. The Environmental Policy Act should be amended such that the 10-day period in which the certificate of need decision can be suspended by the Environmental Quality Board should be increased to at least 30 days. The committee has been advised that the 10-day provision pertains to all environmental decisions under the authority of the Environmental Quality Board and is part of the Environmental Policy Act. Our recommendation applies only to certificate of need decisions. The EQB normally meets once a month. Most commonly, a special EQB meeting would have to be called in order to suspend such a decision. In practice, the 10-day time period is too short for citizens to gather evidence and persuade the EQB to call a special meeting. When compared to legal appeal times, 10-days is also an unusually short time. Thirty days is a normal time for legal appeals and the committee believes that at this time it is more reasonable in this case.

4. "The Legislature should conduct an in-depth interim study of eminent domain laws with respect to electrical utilities."

5. "We urge the Legislature to continue and expand its financial support for energy programs in the schools and for the adult public."

APPENDIX IV

RECOMMENDATION OF THE
"FINAL REPORT OF THE LEGISLATIVE COMMISSION ON ENERGY"

It is recommended by the Legislative Commission on Energy that the State of Minnesota engage in the following activities to achieve a better balance between energy supply and demand in the years ahead:

I. Energy Resources Policy

Short Term Activites:

1. Secure a stable supply of natural gas and petroleum products through federal allocation programs.

2. Encourage the development of alternative supply routes (particularly through-Canada routes) for natural gas, crude oil, and petroleum products.

3. Establish and administer a program for the allocation of natural gas to end users in Minnesota.

4. Prohibit the extension of natural gas use for space heating and water heating purposes.

5. Develop acceptable standards for the use of coal.

6. Encourage the gradual substitution of alternative fuels, particularly coal, for oil and natural gas whenever possible.

7. Minimize the use of oil-fired and gas-fired electric generating plants by the adoption of peakload-pricing utility rates.

8. Explore schemes to maximize the utilization of base-load (coal-fired, nuclear, hydro) power plants.

9. Review with caution, limitation, and restriction the siting and construction of additional nuclear power plants until the industry develops a nuclear fuel cycle that is both safe and environmentally benign.

10. Use whatever means are available and necessary to encourage the development and utilization of solar and wind powered energy systems and other alternative energy sources suitable to Minnesota.

Source: Final Report of the Legislative Commission on Energy, Minnesota State Legislature, June 10, 1975

I. Energy Resources Policy (continued)

Short term activities (continued)

11. Fund and encourage federal funding for research projects that convert municipal wastes into usable energy.

Long Term Activities:

1. Encourage federally funded research on fusion energy.

2. Explore the possibility of interfacing electric utility distribution facilities with residential and commercial energy systems powered by solar or wind energy.

II. Commercial and Industrial Energy Use

Short Term Activities:

1. Agriculture, forestry, and food processing sector:

   A. Protect our agricultural and forestry economic base by assuring adequate supplies of fuel and fertilizer for these activities.

   B. Encourage low-energy technologies and practices in agriculture and forestry.

   C. Discourage the processing and use of food or forestry products that require large inputs of energy.

   D. Encourage low-energy or renewable-energy food processing technologies and processes.

   E. Restrict commercial or residential development on agricultural or forestry land.

2. Recreation sector:

   A. Encourage low-energy recreational activities and tourism.

   B. Discourage motorized recreational vehicles in favor of hiking and bike trails, wilderness campsites, canoe routes, etc.

3. General:

   A. Encourage commercial and industrial energy conservation measures.

   B. Encourage high-efficiency technological designs.

   C. Protect and promote low-energy use industries (especially those that are labor-intensive).

II. Commercial and Industrial Energy Use (continued)

Long Term Activities:

1. Encourage industries to be energy efficient (especially those using petroleum and natural gas).

2. Discourage energy-intensive industries.

III. Transportation Energy Use

Short Term Activities:

1. Strongly encourage car-pooling and van-pooling.

2. Require that existing autos be operated at maximum efficiency and that autos brought into the state in 1980 and thereafter achieve 20 miles per gallon.

3. Assure improved metropolitan public transit facilities and service.

4. Assist in upgrading intercity passenger service by both bus and rail as an alternative to the use of private automobiles.

5. Retain and strictly enforce a 55 mile per hour speed limit.

Long Term Activities:

1. Assist in the development of mass transit facilities.

2. Control transportation corridor development to restrict increased transportation energy use.

3. Assist in upgrading rail passenger and freight service.

4. Encourage communication as a substitute for transportation.

5. Encourage development projects which will minimize the need for transportation by clustering residences, commercial establishments, and employment opportunities.

IV. Personal Energy Use

Short Term Activities:

1. Develop a program to encourage the insulation and energy efficiency upgrading of residences in the state.

2. Encourage wiser residential energy use patterns, particularly in the areas of space conditioning, lighting, and appliance selection and operation.

IV. Personal Energy Use (continued)

Short Term Activities: (continued)

3. Encourage the rehabilitation of central-city residences.

4. Encourage walking, bicycle riding, car-pooling, and the use of mass transit whenever possible.

5. Encourage low-energy consumption uses of leisure time.

Long Term Activities:

1. Encourage cluster housing and multiple-family residences.

2. Encourage the development and construction of new housing styles that are more energy efficient.

3. Encourage the extended use of consumer purchases followed by the maximum practicable recycling.

It is recommended by the Legislative Commission on Energy that the Legislature take the following actions in relation to the Minnesota Energy Agency and major energy policy issues:

1. Retain the Energy Agency and support it with appropriations sufficient for carrying out the energy policies and goals of the state.

2. Require that the Agency employ feasibility studies to establish project priorities.

3. Request that all Agency projects be restricted to reasonably short, well-defined time frames.

4. See that an energy "supply and demand' game plan be developed, aired publicly, refined, and periodically updated.

5. Consider reorganizing the Agency in such a way that the "Planning" function is independent of other operating divisions--possibly reporting to the director or deputy director.

6. Consider requiring that energy impact statements be submitted prior to construction on all large projects in the state.

APPENDIX V

RECOMMENDATIONS OF THE CITIZENS TASK FORCE ON ENERGY POLICY

INTRODUCTION

The Citizens Task Force on Energy Policy of the Minnesota Environmental Quality Council was appointed by Governor Anderson in October, 1972, with the charge to examine "energy production and consumption patterns in the state with the aim of developing specific recommendations for State Policy and action". The members consist of a wide variety of people from throughout the state and from many walks of life; including economists, ecologists, professors, housewives, businessmen, engineers and farmers. A list of Task Force members and their affiliations is included in the appendix of this report.

The Task Force has met approximately 16 times through the course of a year and subcommittees of the Task Force held approximately 24 additional meetings. Representatives of oil, gas, coal, and electric energy suppliers were invited to address the Task Force or its subcommittees. In addition, the Task Force consulted with University faculty, private engineers, energy experts from agencies in State Government, authorities from the Atomic Energy Commission and interested citizens. A number of articles from current journals and reports were circulated to the Task Force, and a bibliography of references together with a list of consultants is also included in the appendix.

The subcommittees established by the Task Force indicate the major areas of concern which emerged during the discussions. The subcommittees and their areas of study are:

1. Agricultural uses of energy
2. Transportation
3. Residential, commercial and industrial energy consumption
4. Short-term actions to alleviate immediate shortages
5. Research and development of new alternative energy sources and efficient energy uses
6. Growth of energy use and pricing policies
7. Legislation

Reports of the subcommittees are included in the body of this report. There are four important themes which occur throughout these presentations. They are:

1. Conservation of Energy: Short-term relief of local energy shortages could be largely resolved through conservation measures. Continued exponential growth in energy consumption will nullify any advances made in pollution abatement or development of energy sources. Energy conservation and a new ethic of energy responsibility are mandatory to ensure long-term stability of energy resources.

Source: Citizens Task Force on Energy Policy, Final Report and Recommendations, MEQB, November, 1973.

2. Research and Development: Since Minnesota has no fossil fuel resources of its own, the development of new and alternative sources of energy should be undertaken to ensure stable, adequate supplies. Some of the alternative sources discussed later in the report appear to be less environmentally damaging and they will spare fossil fuel resources for other uses.

3. Education: A public education program is essential to illustrate the effects of excessive energy use, the potential for conservation and the necessity for adoption of less consumptive life styles.

4. State Leadership: The Task Force believes strongly that the State must take a leadership role in energy conservation both through example and education. Visible public officials, particularly the Governor, must continue to lead the way in promoting energy conservation.

RECOMMENDATIONS

In order to create emphasis, the recommendations of the Task Force have been extracted from the body of the report and are presented in the following section. They are organized under the headings of the subcommittee reports where they can be found with more extensive explanatory material.

The recommendations of the Task Force in the following areas are:

The Energy Situation

1. THAT energy conservation measures should play a major role in state energy policy.

2. THAT the Minnesota Environmental Education Council be directed to develop educational materials and programs on the energy problem, particularly emphasizing the importance of energy conservation.

3. THAT a state agency, possibly the Department of Administration, develop an energy conservation program directed toward owners and operators of commercial and industrial buildings, consisting of informational materials and knowledgeable professionals who would be available for advice and evaluation of building systems design and operation and further that any program of this type must begin with the state setting an example to the private sector.

4. THAT the Governor publicly explain to the people of Minnesota the need for energy conservation, and the effect certain of these measures could have on the energy situation in the state.

Environmental Effects

5. THAT a thorough compilation of the environmental consequences of energy use in Minnesota should be undertaken.

6. THAT the question of the kinds of fuels to be used in Minnesota Power Plants be seriously addressed by the Minnesota Environmental Quality Council, with particular emphasis on educating the people of the state on the alternatives which are involved.

7. THAT the State, possibly through an Energy Commission should be authorized to determine what type of fuel will be used in all new electrical generating plants constructed in the state, and all remodeling of present facilities which entail changes in the type of fuel used.

Short-Term Actions to Alleviate Immediate Fuel Shortages

8. THAT a Committee on Energy Priorities be appointed to advise the Governor and the Director of Civil Defense on:

a. Evaluating the overall fuel situation in the state;

b. The priorities for use of fuels within whatever federal allocation system is devised.

c. In conjunction with developing priorities for fuel use, set up contingency plans for drastic reduction in energy consumption throughout the state if an emergency situation develops.

9. THAT an educational program on the potential for energy savings through proper maintenance of heating systems be prepared and presented.

10. THAT where electricity is available, decorative gas lights should be prohibited.

11. THAT state government immediately initiate an energy conservation program emphasizing particularly measures to lower peak electrical demand as one of the best, and perhaps the only, way to prevent the disruptive effects of a fuel shortage on Minnesota residents this winter. Further, that a similar program be developed immediately focusing on measures to conserve gasoline.

12. THAT savings of up to 25 percent of normal automobile gasoline consumption will result from the following actions:

drive slower;
use air conditioning systems as little as possible;
keep your car in tune and well-maintained;
form car-pools.

13. THAT the Environmental Quality Council immediately develop a program for recycling, or preferably reusing, as much state generated waste as is presently feasible.

14. THAT the Commission on Minnesota's Future develop the specifics of a low energy consumption alternative life style and evaluate the implications such a life style would have for growth and the quality of life in Minnesota.

Residential, Commercial and Industrial

15. THAT the most important factor in developing a state energy policy is to discourage inefficient energy consumption by all users of energy--residential, commercial, and industrial.

16. THAT the State encourage proper maintenance of residences to improve energy efficiency.

17. THAT energy inefficient heating and cooling systems be discouraged in all buildings, and that the State, in particular, immediately develop specifications which would ensure the utilization of energy efficient heating and cooling systems, such as heat reclamation systems, in all public buildings.

18. THAT fresh air requirements in all buildings be reduced to the minimum required for comfort and health with a special emphasis placed on the use of high efficiency air cleaning devices and the re-use of exhausted air. We further recommend that the Minnesota Department of Education immediately reevaluate its fresh air requirements for schools with the goal of increasing energy efficiency through minimizing this type of ventilation.

19. THAT the Department of Administration, in consultation with the Building Code Division sponsor a study which would develop energy consumption specifications for all buildings.

20. THAT large buildings and large complexes be required to install coal burning capability and adequate flue gas cleaning in their heating systems.

21. THAT the use of high volumes of outside air rather than powered refrigeration systems be encouraged in certain types of commercial and industrial comfort cooling applications.

22. THAT lighting levels in all areas be evaluated, and lowered except in those cases where high levels are definitely necessary. As an interim measure, the standards set by the Illuminating Engineering Society (IES) which are now considered "minimum" should be come the "maximum" allowable.

23. THAT the Department of Administration should immediately evaluate the specifications it uses for lighting sources and lighting systems for all state owned buildings to ensure that they follow these recommendations.

24. THAT studies be made to reevaluate the present lighting levels in outside applications.

25. THAT the use of decorative, sign and advertising lighting be reduced and the hours of operation of this type of lighting be restricted.

26. THAT the Legislature approve the "Truth-in Energy" bill which was introduced in the 1973 session.

27. THAT legislation which authorizes energy efficiency labeling should also authorize the designated agency to promulgate minimum efficiency standards for appliances sold in the state, particularly room air conditioners, refrigerators, and freezers, in those cases where there are wide variations in the efficiencies of appliances with similar characteristics. Included in this responsibility would be the development of minimum insulation standards for refrigerators, freezers, and hot water heaters.

Research and Development

28. THAT the following energy sources be further developed for public use with State Aid:

- Solar energy that would supplement our conventional heating systems in homes and commercial buildings.
- Agricultural waste techniques to produce marketable methane gas.
- Solid waste incineration systems that would recover the heat value contained in the wastes and reduce transport energy required in landfill methods required at present.
- Heat recovery systems and heat pumps with special regard for their installation in commercial buildings and industrial processes.
- Mass Transit Systems that will reduce energy expenditures of approximately 1/3 to 2/3 of present requirements.
- Wind power that could provide up to 3 kilowatts of electricity at the source location.

Specific recommendations for funding by the State are included in the subcommittee report. Funding may take the form of grants, matching funds with industry, tax incentives, etc. Programs are envisioned as pure research on the one extreme to demonstration projects at the other.

Growth and Pricing

29. THAT energy conservation be encouraged through manipulation of the pricing mechanism.

30. THAT the Commission on Minnesota's Future should begin immediately to evaluate the effect these pricing policies will have on economic growth in the state.

31. THAT the State should be authorized to regulate rates of gas and electric utilities.

32. THAT this rate regulating authority consider peak pricing or seasonal pricing and that the entire rate structure for gas and electricity should be examined and changed for those customers whose present prices do not equitably reflect actual costs, particularly the substantially lower rates now given large volume customers.

33. THAT the taxing authority of the State should be used to alter energy prices beyond market levels in order to encourage energy conservation and discourage wasteful uses of energy.

34. THAT the following areas should be studied to determine the value of a tax in encouraging energy conservation:

a. Taxation of all new, and possibly used, cars sold in the state which have an engine size above a certain minimum horsepower (or displacement);

b. Taxation of all cars sold with air conditioning units;

c. Basis for assessing car registration fees should reflect weight, and therefore gasoline consumption;

d. Taxation of air conditioning units and frost-free refrigerators and freezers;

e. Taxation of recreational motor vehicles.

Transportation

35. THAT it is imperative to reverse the industry-induced trend toward larger, heavier, and thus more energy intensive automobiles by encouraging the public to move toward smaller, lighter vehicles whose engines will consume less fuel.

36. THAT all future purchases of passenger cars by the State should be of vehicles with engines no larger than realistically needed for the proposed usage.

37. THAT the present system of determining motor vehicle license fees be changed so as to reflect the energy consumption of the vehicle.

38. THAT the effectiveness of a significantly increased gasoline tax be evaluated by the State as a further means to encourage more energy efficient transportation.

39. THAT the State of Minnesota consider the feasibility of lowered speed limits in Minnesota.

40. THAT the desirability of allowing continued uncontrolled proliferation of recreational vehicles, such as snowmobiles, all terrain vehicles, trail bikes and motorized boats, ought to be reconsidered in light of their demands upon our increasingly depleted supply of petroleum resources, not to mention their obvious environmental impact.

41. THAT the Department of Administration immediately set up a car pool information system such as that which has been developed by the Minnesota Department of Highways and the University of Minnesota, and make it available to all State employees in urban areas.

42. THAT urban passenger traffic must move away from dependence on the private automobile towards systems in which public mass transit supplies most transportation needs.

44. THAT the State insure that bus service be continued in those areas which presently have such service, and that studies be made on the feasibility of developing public transportation systemsin those urban areas which must now epend on private transportation.

45. THAT a fair and open-minded evaluation of the PRT system for the metropolitan area need be made immediately.

46. THAT immediate steps be taken to upgrade the passenger rail system in order to make this system a viable alternative to the airplane for intercity travel over short and medium distances.

47. THAT a Department of Transportation should be established at the State level.

48. THAT State officials urge the Federal Government to set rates to promulgate regulations to encourage energy efficient modes of transportation.

Agriculture

49. THAT through appropriate machinery, the University of Minnesota and other academic institutions be encouraged to conduct research in order to learn more about the energy intensiveness of Minnesota agriculture and the significance of any present trends toward greater use of energy.

50. THAT the Department of Agriculture and the Agriculture Extension Service consider evaluating, and unless significant unknown effects are found, promoting those methods of husbandry which appear to be less energy intensive, such as the following:

1. "minimum tillage";
2. interseeding of legumes;
3. use of manures and legumes as methods for nitrogen incorporation.

51. THAT good conservation practices and proper consideration of "total energy use" per acre be made a part of the continuing education of farm operators, both on the high school level and for later refresher courses.

52. THAT the Minnesota Environmental Quality Council establish a citizens task force to examine the impact of "high technology" agriculture, with its energy intensive use of large machinery, pesticides, herbicides, and fertilizer, upon the environment and human health.

53. THAT a state agency such as the Minnesota Department of Agriculture, the Department of Natural Resources or the Pollution Control Agency be designated as responsible for monitoring the use of energy in agriculture, including the evaluation of new methods of husbandry from a standpoint of energy use, impact on the environment, and impact upon human health, in the near and long term.

54. THAT consideration be given to broadening the scope of agricultural information programs in Minnesota so as to assist and inform operators of small farms, truck gardeners and other food producers who may not be well informed and who may be likely to use less energy intensive methods.

Legislation

55. THAT an energy commission bill be adopted with the following twelve sections:

a. An independent commission with:
b. Data collecting and forecasting functions,
c. Responsibility for a state energy plan,
d. Requirements for public participation,
e. Authority for state energy emergency plan,
f. Authority to examine energy rates and marketing practices,
g. Responsibility for energy conservation research,
h. Responsibility for a conservation education program,
i. Provision for promulgation of conservation rules and regulations,
j. Power to issue certificates of necessity,
k. Establishment of an energy surcharge, and
l. An appropriation sufficient to carry out the intentions of the act.

56. THAT the Minnesota Energy Commission be directed to examine marketing and distribution practices as well as pricing policies.

57. THAT SF 2237/JH2249, the "truth in energy" bill, and HF911/SF2073, the "automobile horsepower tax", be passed as useful steps in the direction of energy conservation.

58. THAT a Public Service Commission with rate setting authority be established.

59. THAT certificate of necessity and a promulgation of conservation regulations be assigned to a separate, independent Energy Commission.

APPENDIX VI

ISSUE SUMMARY OF THE 1979 INVENTORY REPORT

CHAPTER I - GENERATING PLANT SIZES AND TYPES

ISSUE: What types of large electric generating plants should be considered in the Inventory of Study Areas?

Criterion: The criteria and policies in this Inventory shall apply to all plant types.

Planning Policy: Study areas shall be determined assqming specific plant types and specific system technologies.

Criterion: Study areas will encourage the conservation of energy through the utilization of the waste heat from thermal-electric plants.

Planning Policy: None at this time. While it is not possible to consider all the factors associated with this criterion for the entire state, it is possible to consider these factors on a site specific basis.

Assumptions:

- When it is necessary to assume a specific type of fuel to define study areas, coal fired thermal-electric plants will be used.

ISSUE: What size electric generating plants should be considered in this Inventory of Study Areas?

Criterion: The criterion and planning policies in this Inventory will apply to all plant sizes under the authority of the Minnesota Environmental Quality Board.

Planning Policy: Study areas will be determined for a range of plant sizes between 50 megawatts and 2400 megawatts generating capacity.

Assumptions:

- When it is necessary to assume a specific plant size to define study areas, all of the following plant capacity will be used: 50 megawatts (MW), 200 MW, 400 MW, 800 MW, 1000 MW and 2400 MW.

CHAPTER II - ECONOMICS CONSIDERATIONS

ISSUE: Can the economic considerations associated with plant size be used in determining study areas?

ISSUE: Should coal transportation costs restrict study areas?

ISSUE: Can the local community and economic effects of power plants be used in defining study areas?

CHAPTER II (continued)

Criterion: Study areas will maximize the opportunities for community and economic development.

Planning Policy: None at this time. It is not now possible to propose a planning policy that will allow study areas to be defined on a statewide basis.

CHAPTER III - EXCLUSION AREAS AND AVOIDANCE AREAS

ISSUE: How can Exclusion Areas and Avoidance Areas be considered in the definition of study areas?

Criterion: Study areas shall not include land areas with significant concentrations of Exclusion Areas and Avoidance Areas.

Planning Policy: Exclusion Areas shall not be included in study areas.

Planning Policy: Cells with 70% or more of the land classified as Avoidance Areas shall not be included in study areas.

Assumptions:

- Smaller Exclusion Areas; National Historic Sites and Districts, National Historic Landmarks, and National Monuments are treated as Avoidance Areas in determining study areas.

CHAPTER IV - WATER SUPPLY AND WATER QUALITY

ISSUE: What water sources are adequate and available to meet future plant demand?

Criterion: Study areas shall have reasonable access to a water supply sufficient for plant operation.

Planning Policy: Study areas must allow for a water supply sufficient to meet plant demand for the most severe periods of low flow on record.

Criterion: Study areas shall minimize the removal of valuable and productive water from other necessary uses and minimize conflict among water users.

Planning Policy: Major streams and Lake Superior will be considered potential primary sources of water for power plant operation in defining study areas.

Planning Policy: As the Department of Natural Resources establishes protected flow levels for the various stream segment, these limitations will be used in defining study areas.

Assumptions:

- An annual plant capacity factor of sixty-five percent is assumed in determining the water needs of an electric power plant.

- One hundred percent wet cooling is assumed in determining the water needs of an electric power plant greater than 200 MW in capacity.

- Only streams with an average annual flow greater than 100 cubic feet per second are in this Inventory.

- For this Inventory, the following protected flows have been assumed: 40 percent of average annual flow; 30 percent of average annual flow; the flow exceeded 90 percent of the time.

- In defining study areas for plants between 50 megawatts and 200 megawatts, it has been assumed that water availability is not a factor for plants at this size range.

- While lakes and groundwater may in some cases be used as a primary water supply for a power plant; due to the site specific nature of the permitting requirements, lakes (except for Lake Superior) and groundwater will not be considered a primary water supply in defining study areas.

ISSUE: How can supplemental water and water storage be considered in determining where adequate water for power plant operation is most likely to be found?

Criterion: Study areas shall have access to a water supply for plant operation.

Planning Policy: Supplemental water supply and water storage will be considered in establishing a reasonable water supply.

Criterion: Study areas will minimize the removal of valuable and productive areas from other necessary uses and minize conflict among water users.

Planning Policy: For the purpose of defining study areas where adequate water for a power plant is likely to be found, this Inventory will assume storage of water in a reservoir.

Assumptions:

- For the purpose of defining areas where adequate water for a power plant is likely to be found, this Inventory will assume the maximum reasonable reservoir size will provide 30,000 acre feet of usable water storage.

- While lakes and groundwater may in some cases supply supplemental water; due to the site specific nature of the permitting requirements lakes and groundwater will be considered a source of supplemental water in defining study areas.

CHAPTER IV (continued)

ISSUE: How far should the power plant be from its proven water supply?

Criterion: Study areas shall have reasonable access to water supply for plant operation.

Planning Policy: In defining study areas "reasonable access" should mean no more than 25 miles distance from the source of water.

ISSUE: Can plants be sited in a manner to minimize impact on water quality?

Criterion: Preferred study areas will minimize impact on water quality.

Planning Policy: None at this time. The level of information required to propose a planning policy has not been developed yet. It is assumed that the various levels assumed for protected flows would all be adequate to provide for waste assimilation.

CHAPTER V - AIR QUALITY

ISSUE: How can Air Quality considerations be used in defining study areas?

Criterion: Study areas shall minimize the adverse impact of power plants on human health and welfare.

Criterion: Study areas shall be designated in a manner compatible with compliance with existing state and federal regulation.

Planning Policy: Study areas shall not result in violations of the secondary standards for 24 hour concentrations of SO_2 and particulates.

ISSUE: Should non-attainment areas be included as possible study areas?

Criterion: Study areas shall minimize detrimental effects on air quality.

Planning Policy: Study areas shall be limited to Clean Air Act designated Attainment Areas, or areas where offsets that can be applied to a new power plant are available.

Assumptions:

- Electric utilities will be able to obtain the emission offsets required by the EPA and PCA for siting coal fired power plants in or near Minnesota non-attainment areas.

ISSUE: How can the most productive agricultural land be considered in determining study areas?

Criterion: Study areas shall minimize the removal of valuable and productive cropland from agricultural uses.

CHAPTER V (continued)

Planning Policy: The term "cropland" shall mean land whose current and prospective use is primarily agricultural production.

Planning Policy: "Most highly productive cropland" shall be defined as the highest scoring 20% of the cropland in the state.

Planning Policy: Study areas shall not prefer 5 kilometer cells in which the "most highly productive cropland" constitutes 75% or more of the cropland in the cell.

CHAPTER VII - COAL AVAILABILITY

ISSUE: What existing transportation systems are adequate to meet future plant requirements?

Criterion: Study areas utilize existing transportation systems.

Planning Policy: Study areas shall be defined using all existing railroads.

Planning Policy: Study areas shall be defined using existing waterways presently capable of transporting large amounts of coal.

Assumptions:

- All existing railroads have the potential of being upgraded to allow the use of coal unit trains.

ISSUE: How far should a power plant be from existing transportation?

Criterion: Study areas minimize the removal of valuable and productive agricultural forestry, or mineral land from their uses.

Criterion: Study areas minimize costs of power plant construction and operation.

Planning Policy: Study areas are within 12 miles of existing rail or waterway transportation systems.

CHAPTER VIII - ASSOCIATED TRANSMISSION NEEDS

ISSUE: How can power plants be sited to minimize the need for additional transmission lines or to minimize the need for additional rights of way?

Criterion: Study areas shall minimize the need for additions to the transmission network.

CHAPTER IV (continued)

ISSUE: How far should the power plant be from its proven water supply?

Criterion: Study areas shall have reasonable access to water supply for plant operation.

Planning Policy: In defining study areas "reasonable access" should mean no more than 25 miles distance from the source of water.

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Planning Policy: None at this time. The level of information required to propose a planning policy has not been developed yet. It is assumed that the various levels assumed for protected flows would all be adequate to provide for waste assimilation.

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ISSUE: How can power plants be sited to minimize the need for additional transmission lines or to minimize the need for additional rights of way?

Criterion: Study areas shall minimize the need for additions to the transmission network.

CHAPTER VIII (continued)

Planning Policy: None proposed at this time. While it is not now possible to consider all the factors associated with this criterion for the entire state, it is possible to consider these factors on a site specific basis.

Criterion: Study areas shall minimize the distance to electric loads.

Planning Policy: None proposed at this time. The information needed to define study areas based on this criteria is not now available on a statewide basis.

CHAPTER IX - POWER PLANT STUDY AREAS

Source: "Issue Summary," 1979 Inventory, MEQB, November 1979.