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Department of Revenue

**A TAX SYSTEM THAT MAKES SENSE
FOR MINNESOTA:
UTILITY TAX REFORM**

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Executive Summary

The study of taxation of a changing and increasingly deregulated energy market has been before the Minnesota Legislature for several years. This is the second utility taxation study the legislature has asked the Department of Revenue to prepare to unravel the complications that utility restructuring can cause to state and local finances.

Whether the tax changes should occur concurrently with wholesale or retail competition is a difficult question to answer. This study examines several different tax issues the Legislature should consider as it examines regulatory changes. The outcome for any tax changes should be based on sound tax policy principles that will create the least disruption to consumers, utilities and their shareholders, and local governments.

Study Background

As part of this study, the Minnesota Department of Revenue (DOR) held eight meetings, structured around various tax topics and other issues specified in the legislation. Notes and background materials for the meetings are available on the DOR website (www.taxes.state.mn.us).

The Minnesota Department of Commerce also held a series of public meetings and recently prepared a report titled “Keeping the Lights On,” which makes several recommendations on how to ensure a reliable, adequate supply of electricity service to Minnesota consumers. The report focuses on four areas: Energy Planning, Greater Efficiencies in Energy Conservation, Promote Modern Energy Technologies and Encourage and Enforce Wholesale Competition. The report did not recommend full retail competition at this time.

The main parts of this report are:

- A background on utility taxation and key issues of concern as states consider restructuring the electric utility industry in whole or in part. Those issues include the personal property tax, exemptions to the tax, sales tax and corporate franchise tax, and utility valuation. There is also a brief discussion of the issues raised at a public meeting on environmental concerns, per the mandated study language.
- An examination of utility taxation in Minnesota compared to other surrounding states.
- An analysis of the impact on host communities (those communities with utility property).

Summary of Recommendations

The recommendations regarding utility property cannot be severed from the larger tax reform proposal that will be presented to the 2001 Legislature. The governor’s proposal to eliminate the K-12 general education levy corrects an existing imbalance in state-local fiscal relations by recognizing that services with broad, statewide benefits should be financed through state general fund resources. The DOR recommends that any reduction in personal property tax be incorporated into the larger reform of state and local fiscal relationships.

If the K-12 levy is eliminated and if school funding for general education remains at the current level, then the state will need to raise approximately \$900 million in revenue to substitute for the general education levy. Eliminating the state-determined portion of the property tax levy will

significantly reduce in taxes paid by higher tax burden properties such as commercial and industrial (including utility) properties, rental housing, and others. Approximately \$440 million of the \$900 million is a reduction in commercial and industrial property tax.

One possible revenue source to fund a portion of the \$900 million is a state-imposed tax on business property and other “non-voting property.” This statewide tax would recapture some, but not all, of the initial \$440 million reduction realized by business properties with the elimination of the general education levy.

The statewide tax would replace the existing general education property tax levy and recognizes that business property taxes should be reduced to improve the state's competitive position. The DOR believes that the overall tax burdens on businesses—and utilities are no exception—is a competitive issue for Minnesota companies. The statewide tax also addresses the additional principle that Minnesota businesses also have an interest in a high-quality basic- education system, throughout the state.

The question raised in this report is whether the statewide tax on business property should be levied on utility personal property. The decision to include or exclude utility personal property must be designed to minimize or neutralize any impact on city and county property tax revenues.

With this background, the DOR recommends the following:

- **Exempting utility personal property (attached generation machinery) from the statewide business tax under the governor’s proposal, but retain it for the local portion of the property tax.**

Under this recommendation, utility personal property will benefit fully from the elimination of the local general education levy because it would not be subject to the new statewide tax. Utility real property will also realize significant savings in Commercial/Industrial tax through further relief under the governor’s plan. The tax that would have been raised by the new statewide tax will, in effect, be shifted to other properties subject to the new statewide tax or other revenue sources. The utility personal property will, however, be subject to the same property classification rates applicable to all business properties and to the local tax rate for the local portion of the property tax.

The DOR believes this recommendation will result in larger net tax reductions for utility personal property than for other business property, while maintaining the host community tax base.

- **Clarify the exemptions for more efficient plant and pollution control equipment exemptions to promote investments in new technology with measurable public policy outcomes.**

The Department of Commerce recommends exempting only new plants from the personal property tax. While this may achieve the goal of providing incentives for new construction, it treats existing plants differently. The DOR recommends that the Legislature clarify the statute covering the exemption for pollution control equipment to provide an incentive for investments in existing plants.

- **Depending on the extent to which the Legislature restructures the industry, make changes to the rules in the valuation method.**

Minnesota has a much more stringent depreciation schedule for utility plants than other states. This is a complex area and is discussed more fully in Chapter 4 of this report.

- **Define electricity as a “tangible” product.**

This recommendation stems from the fact that Minnesota law is silent on the treatment of electricity as a “tangible” or “intangible” product. The DOR currently treats electricity as a tangible product by allowing the same exemptions for electricity as for other tangible personal property for generation of electricity, such as exempting electricity for the industrial production exemption and the capital equipment exemption.

Since most states define electricity as tangible, the National Streamlined Sales Tax project—a multi-state project to harmonize sales tax definitions and bring uniformity to state administration of the sales tax—recently voted to define electricity as tangible property.

- **Further examine the local debt issues of utility communities.**

This was one of the more difficult aspects of the report. Local financial information is not readily available and an analysis of the impact of tax changes is different in every community, depending on the community’s tax base and debt expenditures. If the Legislature were to fully exempt the personal property, a revenue source would more than likely need to be designed to ensure the stability of utility host communities. Since the DOR recommend exempting only the general education levy portion of the tax, and leaving the local tax in place, it offers no specific recommendation at this time for the state to assume any local debt obligation.

- **Conduct further modeling of overall tax burden and its impact on electric prices for consumers and industry.**

The total tax burden for existing and new plants requires further analysis in a rapidly restructuring, competitive environment. The DOR, in tracking legislative action on the issue, will be further refining an approach to analyze the effect of competition on electric prices.

Chapter 1

1999 Legislative Mandate

The Minnesota Legislature required that the commissioner of Revenue, in consultation with the commissioner of Public Service, complete a study assessing the policy issues related to the taxation of Minnesota generation facilities in a changing energy market (Laws 1999, Chapter 243, Article 5, Section 49). The following is the requirement from the law:

Sec. 49. [RECOMMENDATIONS ON UTILITY TAX POLICY.]

The commissioner of revenue, upon consultation with the commissioner of public service and other appropriate state agencies, shall convene meetings of representatives from utilities which pay personal property taxes on generation facilities and local governments in which those facilities are sited. These meetings shall assess policy issues related to the taxation of Minnesota utility generation facilities in a changing energy market, including:

- (1) the effects of future restructuring of the electric industry;*
- (2) impacts on revenue to local governments and debt issuance;*
- (3) evolution of utility tax policy in Minnesota and other states;*
- (4) sufficiency of Minnesota's future electric power supply; and*
- (5) any other relevant issues, including environmental, labor, and consumer issues.*

The meetings shall be open to any interested parties. The commissioner shall examine utility tax policy issues and make recommendations, as warranted, on the future of the personal property tax on generation facilities and the replacement of revenues that would be lost to local units of government as a result of a partial or full exemption of these personal property taxes.

The commissioner shall report on the progress of these meetings, including options being considered and a plan for completing the report, to the chairs of the senate committees on taxes and jobs, energy and community development, the house committees on taxes and commerce, and the governor, by January 15, 2000, with a final report to those same officials by December 1, 2000.

In response to Minn. Stat. § 3.197, the total cost of this report was \$32,000.

Department of Commerce

The Department of Commerce (formerly the Department of Public Service) has prepared a separate report entitled "Keeping the Lights On," which discusses that agency's recommendations for utility deregulation. The Department of Commerce recommends four items:

1. Comprehensive energy planning in the new environment.
 - Establish a statewide energy resource plan; and
 - Streamline approval process for generation and transmission projects.
2. Greater efficiencies in energy conservation
 - Increase efficiency in the administration of conservation programs.

3. Promote modern energy technologies.
 - Eliminate barriers to installation of distributed generation resources; and
 - Promote increased utilization of renewable energy resources.
4. Encourage and enforce wholesale competition.
 - Require competitive bidding for new generation capacity additions;
 - Eliminate personal property tax on new generation facilities and on new equipment at existing facilities;
 - Protect competitive market for generation through behavioral and structural remedies for abuse of market power; and
 - Ensure efficient, effective and reliable operation of the regional transmission grid and local distribution wires in a manner that protects the interests of Minnesota customers.

While the Commerce report addresses regulatory policy and some reference to tax policy, this report focuses strictly on tax questions in a deregulating environment. The reports both offer similar recommendations. The Department of Commerce report can be found on the Commerce website (www.commerce.state.mn.us).

Chapter 2

Overview of Minnesota Taxes on the Electric Industry

The state of Minnesota relies on three main taxes for the majority of state and local revenues: property tax (19%), sales tax (17%) and income tax (22%). For fiscal year 2001, the state estimates that 12% of support will come from other taxes, 16% from fees and charges, and 14% from other revenue.¹

Minnesota has one of the most highly classified property tax systems in the country. One of the class rates is for Commercial/Industrial property, with over \$42,486,000,000 in taxable market value. The Commercial/Industrial class includes property used in the generation, transmission or distribution of electric energy. However, while the personal property of all other businesses is exempt from property taxation,² utility personal property is not exempt.

Although the property tax is used entirely to fund local government, many aspects of the tax are controlled by the state. State laws determine which types of property are subject to or exempt from property tax. The state affects levies by providing financial support for certain local functions and has, in some cases, tried to control the property tax through levy limits. Through classification, the state defines how local levies will be spread across taxable properties in each community. In the year 2000 a total of \$4,687,859,740 in property tax was levied (including rural transmission and distribution line tax); of this amount, \$240,444,010 was paid in personal property tax on utility property and \$69,234,000 was paid on electric generation machinery.

What Are Utilities?

In Minnesota, “utilities” include electric companies, natural gas or water distribution companies, natural gas transmission pipelines, and fluid pipelines carrying crude oil petroleum or natural gas liquid products.

The focus of this study is on electric companies. Four categories of electric providers exist in the state:

1. Investor-owned companies.
2. Electric cooperatives, both generation and transmission and distribution cooperatives.
3. Municipal utilities and municipal power agencies.
4. Independent power producers.

Some independent power producers produce power for themselves. Others produce power for sale on the market or under contract with utilities or users. Examples of independent power producers are companies producing wind energy and those producing electricity by burning methane gas from landfills. Another type of independent power producer would be a merchant plant, which are unregulated electric plants that produce energy for sale to end-users. If a company owns an electric generator, uses all electricity generated itself and does not sell any to others, then it is not considered a utility.

¹ 1999 Price of Government Measure, Minnesota Department of Finance

² Minn. Stat. §272.02, subd. 9.

What Is Utility Personal Property?

Utility property is divided into three classes:

1. **Real estate**, which includes all land and buildings.
2. **Attached machinery personal property**, which is machinery and equipment that is attached to real property. Machinery and equipment is alternatively treated as part of the real property and is always on a specific parcel of land. For property tax purposes and as a general rule, machinery and equipment is valued separately by the state. In most cases, the values are sent to the county and the county includes the value with the value of the land and buildings.
3. **Personal property**, consisting of transmission electric line, distribution electric lines and pipeline of all types, which is separate from the machinery class.

Valuation of Electric Companies

The valuation of utility property has a long history. Prior to 1975, all taxable utility property was valued using what is called the “Hatfield” method, which is unique to Minnesota. This method simply takes the cost of the property and allows 2.5% depreciation per year for 10 years. Therefore, when fully depreciated, the taxable residual value is 75% of the cost.

In the past, electric cooperatives, municipal power associations and non-common carrier utilities were valued using the Hatfield method. Typical non-common carriers are pipelines that carry products from one point, such as a refinery, to distribution terminals owned by the same firms. The 2000 assessment, included the impacts of an amendment in the administrative rules for the valuation of electric cooperatives to allow them to be valued using the same method as investor-owned utilities.

Municipal utilities are exempt because they are government entities. However, the provisions of Minn. Stat. §453.54, subd. 20 require municipal power agencies to pay “to each taxing authority within whose taxing jurisdiction its property is situated, in lieu of taxes on its property, the amounts of the taxes which would be payable if its property were owned by a private person.” Due to this provision, municipal power agencies are valued like cooperatives under the Hatfield method of valuation.

As a result of the court case *Independent School District No. 99, et al. vs. Commissioner of Taxation and Minnesota Power & Light* (as Intervenor), the unit value method was used on for-profit companies. This case is discussed in Chapter 3. Note that the local assessor values some utility property when the owner has property only in one county. Chapter 4 provides more detail on utility valuation.

Sales Tax Issues

Imposition of Tax

The state of Minnesota imposes sales tax on the gross receipts from retail sales of electricity for use or consumption in the state. A use tax is imposed on the use of that same electricity if the sales tax has not been paid previously.

The following sales and/or uses of electricity are exempt from the sales or use tax:

- The sale of electricity to be used or consumed in the agricultural or industrial production of tangible personal property to be sold ultimately at retail.

- The sale of electricity to be used to make snow for outdoor use for ski hills, ski slopes, or ski trails.
- The sale of electricity for residential use to customers who are metered and billed as residential users and who use electricity for their primary source of residential heat, for the billing months of November, December, January, February, March and April.³

Production of Electricity

Producers/sellers of electricity may purchase materials used or consumed directly in the production of electricity to be sold at retail. This would include coal or other fuel sources, etc. Producers/sellers of electricity must pay sales or use tax initially on all purchases of machinery and equipment used in the production and distribution of electricity.

Local Taxes

If the sale or use of electricity, which is subject to Minnesota sales or use tax takes place in one of the taxing jurisdictions that impose a local sales/use tax, the sale of the electricity would also be subject to the local tax.

Capital Equipment

Producers of electricity may obtain a refund of the sales or use tax paid on the purchases of machinery or equipment used in the production of the electricity. This would include items such as generators and step-up transformers as well as poles and wires used after the electricity is generated at the plant but before it passes through the last line transformer.⁴

Corporate Franchise Tax

Three types of electric utility companies currently operate in Minnesota. They are investor-owned utilities, cooperatives, and municipal utilities. The Minnesota corporate franchise tax is levied on the investor-owned utilities and cooperatives. The municipal utilities are non-profit organizations and therefore not subject to the corporate franchise tax.

The Minnesota corporate franchise tax is based on federal taxable income (line 30 of federal form 1120). There are 14 addition modifications and 16 subtraction modifications. The tax is determined on a unitary basis. Minnesota uses domestic combination reporting. Those corporations engaged in a single unitary business that are created or organized in the United States must file a combined (unitary) return.

Income is apportioned to Minnesota using a three-factor apportionment formula. The factors include property, payroll and sales. Minnesota uses a weighted apportionment formula. Sales are weighted 70% and property and payroll are each weighted at 15%. (For tax years beginning after December 31, 2000, the weighting of these factors will be changed to 75% for sales, 12.5% for property and 12.5% for payroll).

³ Home heating fuel exemption was enacted in 1978 (Minn. Stat § 297A.25, subd 23)

⁴ Revenue Notice 98-15

Under current Minnesota law, the investor-owned utilities and the cooperatives have nexus with Minnesota through ownership of power lines or other property located within the state.

If Minnesota makes changes to allow retail competition in the electric industry, companies located outside Minnesota may not have sufficient nexus for the state to impose the corporate franchise tax. The tax base would be further eroded by the sales of electricity by the in-state generators to businesses located outside of Minnesota.

City Franchise Fees

Some cities in Minnesota assess franchise fees on the sale of electricity or natural gas within their borders. If a complete restructuring of the electric industry and/or natural gas industry is completed, the Legislature should be aware of the impact on these fees. If a seller does not have nexus in the city, it may be difficult for the city to impose its franchise fee on all or part of the sale price. The DOR has not studied in detail the effect on these fees as part of this report.

Chapter 3

Definitions and Case Law

Definitions

Minn. Stat. §273.03 provides some, but not definitive, guidance on how to define utility property. Since utility property requires a specialized form of appraisal, a terminology has been developed for the process. Some of the definitions come from state organizations or the Federal Energy Regulatory Commission, or have been developed within the state of Minnesota for assessment purposes.⁵

Not included in these definitions is how to divide property into the various subgroups. These groups, such as generation, transmission and distribution, are defined using the criteria spelled out in the Code of Federal Regulations, Title 18, Chapter I, part 101. Cooperatives have similar language in the Code of Federal Regulations, Title 7. However, despite the adopted definitions the Department of Commerce and the Federal Energy Regulatory Commission still occasionally adopt administrative policies that have different definitions than those in the Code of Federal Regulations. The Code of Federal Regulations, Title 18 lists items that are to be classified as land, structures and improvements or equipment.

Case Law

Four court cases have played a large role in determining the valuation methods of electric utilities. The following are summaries of the cases as provided by the Appeals and Legal Services Division of the Department of Revenue.

Case #1

<i>Independent School District No. 99, Thomson Township, Village of Scanlon, Independent School District No. 98, Independent School District No. 93, and Carlton County</i>	versus	<i>Commissioner of Taxation, and Minn. Power & Light (as Intervenor)</i>
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In 1962, the Commissioner adopted a “substantially different” method of valuing the property of electric utility and petroleum and gas pipeline companies (i.e., the “Hatfield formula”). This method consisted of an “original cost less depreciation” formula, with depreciation limited. The taxing districts contested the resultant reduction in the valuation of equipment at the Thomson Hydro-Electric Station. The Tax Court upheld the Commissioner’s use of the new formula, and the taxing districts appealed.

The Minnesota Supreme Court reversed the decision of the Tax Court, and remanded the case for a new hearing. The Supreme Court rejected the so-called Hatfield formula on the basis that administrative simplicity did not justify deviation from the statutory mandates that the Commissioner give weight to all factors that affect market value when assessing utility properties. The Supreme Court did not specifically reject or approve any particular valuation figure for the involved equipment.

The Tax Court conducted a new hearing and determined the market value of the involved equipment without using the so-called Hatfield formula.

⁵ See Appendix A, “Glossary of Utility Terms,” for more detail.

In 1975, the department promulgated rules for determining electric utility valuations incorporating both an “income-based” method and an “original cost less depreciation” formula. Use of “comparable sales” was not incorporated into the new rules because complete systems were seldom sold. Under these original rules, the “original cost less depreciation” result was weighted at 85%, and the “income-based” result at 15%.

Initial hearing: Minnesota Tax Court, Docket Nos. 1409 and 1415, Sept. 20, 1971
On appeal: 211 N.W.2d 886 (Minnesota Supreme Court 1973)
On remand: Minnesota Tax Court (Oct. 16, 1974)
On remand: Minnesota Tax Court (May 30, 1975)

Case #2

Minnegasco, Inc. versus *County of Carver,
County of Dakota, and
County of Scott*

The Minnesota Supreme Court decided that Minnegasco’s utility personal property can be assessed at a higher percentage of market value (i.e., 100%) than comparable real estate. Under the Minnesota Constitution, taxes must be equal within each class. Evidence from the Department of Revenue’s Assessment/Sales Ratio Study indicated that taxable commercial and industrial property in general is valued at a percentage of actual value which varies from location to location. Utility personal property, on the other hand, was centrally assessed by the commissioner of revenue at 100% of its market value.

The Supreme Court decided that utility personal property had been rationally designated as a separate and distinct class of property by the legislature for taxation purposes. This meant that, as a matter of law, the Department’s Assessment/Sales Ratio Study data on the assessment levels of commercial and industrial real properties was irrelevant on the issue of whether or not utility personal property was being unequally assessed, as compared to those other properties. Currently, the commissioner equalizes utility real property values by county under Minnesota Rules, subd. 8100.0700.

Initial hearings: Minnesota Tax Court, Docket Nos. 86-21627, 87-22752, 101539, 86-04668 & 87-04206, Oct. 20, 1987 (counties’ motion for joinder of State denied)
Minnesota Tax Court, Sept. 9, 1988 & Mar. 14, 1989 (counties’ motion for summary judgment denied).
Appeal: 447 N.W.2d 878 (Minnesota Supreme Court, 1989).
(Motion for rehearing denied Jan., 16, 1990.)

Case #3

United Power Assoc. versus *Commissioner of Revenue and
County of Sherburne*

The Minnesota Supreme Court decided that the storage building used to stockpile refuse derived fuel (i.e., RDF), and the enclosed conveyor system that transports the RDF from the storage building to the building where it is burned is exempt from ad valorem property taxes because it qualifies under the statutory exemption for property used primarily for the abatement and control of pollution.

Initial hearing: Minnesota Tax Court, Docket Nos. 5623 & C2-90-599, July 10, 1991.
Appeal: Minnesota Supreme Court, 483 N.W.2d 74 (Minnesota 1992)

Case # 4

Northern States Power Co.

versus

*Commissioner of Revenue,
County of Goodhue (as Intervenor),
City of Red Wing (as Intervenor), and
County of Wright (as Intervenor).*

“Safeguards Electrical System” equipment is installed at the company’s Red Wing and Monticello nuclear power plants. Each system consists of emergency power generators, and other associated equipment, that would be used to supply back-up electric power to the plants in the case of a loss of regular power. The back-up power is necessary in order to operate other equipment during times when regular power supplies are disrupted, in order to prevent damage to the nuclear core. The Tax Court held that the “Safeguards Electrical System” equipment is used primarily for pollution control, as opposed to being safety equipment, and that therefore the systems qualify under the statutory pollution-control exemption.

Hearing: Minnesota Tax Court, Docket Nos. 6662-6663, Oct. 17, 1996.

Chapter 4

Valuation and Assessment of Utility Property

The rules governing the valuation of electric company property (Minnesota Rules Chapter 8100) have existed since 1975. The rules describe how the value of electric company property is calculated and have been amended many times since the original adoption. They were last amended effective with the 2000 assessment year. Changes to the rules, made effective for assessment year 2000, affected the value of cooperatives by allowing them to elect to be valued using unit value. Rule changes also affected two electric utilities by changing the weighting of the cost indicator of value to 75% and the income indicator to 25%.

The commissioner has the power to modify these rules whenever it is determined that a change is necessary to reflect unusual circumstances relating to specific properties or conditions of a company. In practice, the valuations are modified as little as amount possible.

Background and History

The appraisal of utility property is considered to be a specialized type of valuation. Therefore, a specific method of appraising this property has evolved. This method is called the “unit value” method of appraisal. It considers cost, income and market approaches. While the approaches to appraisal are the same as used in other valuations, the difference is that the “unit,” which is generally a whole company, is considered in the valuation instead of single properties.

In Minnesota, utilities are valued and assessed under a “dual” system. The Revenue commissioner values some utility property and some is valued by local assessors. The property that is valued by local assessors includes offices, garages, warehouses and land. Local assessors may also value an electric system that is located in only one county. The Revenue commissioner centrally assesses property that is part of the actual operating system.

How is the Property Tax Levied on Utility Property?

Once the value is set and the county receives the values, the assessor applies the applicable class rates. The class rates have been on a downward trend since 1989, when the class rate system went into effect. The class rates for taxes payable in 1989 were 4.6% for machinery, 3.3% for the first \$100,000 of value and 5.25% for value above \$100,000 for real property. By contrast, the class rates for taxes payable in 2000 are 3.4% for machinery, 2.4% for the first \$150,000 of value and 3.4% on the value above \$150,000.

These rates are set by the legislature. After the class rate is applied the local tax rate is applied. The result is the tax. Some jurisdictions may have other fees, assessments, credits or referendum calculations. The county auditor in each county is responsible for making the calculations of the tax.

The total value of property of electric companies assessed by the Revenue commissioner in 1999 (taxes payable in 2000) was \$4,425,091,000. Of this, \$1,576,469,000 was machinery located at generating plants. The remainder was buildings, power lines, substation and other switches and meters necessary to operate the electric systems. In the year 2000, estimated total taxes payable for machinery located at generating plants (“attached machinery”) is \$69,234,000. This tax on generating plants has been discussed for possible repeal in conjunction with restructuring.

It is important to understand the current valuation methodology. While it may seem highly technical, changes would have to be made with any restructuring. The valuation methodology has six steps:

1. Cost approach

The first step is the cost approach. Generally, what is used is called “original cost” or the cost to the current owner. However, occasionally “historical cost” is used, which is the cost when originally placed in utility service. Historical cost may be more relevant when the difference is due to refinancing of the property or the business. These two types of cost are identical if the current owner and original owner are the same and no changes in cost such as “write ups” or “write downs” have occurred.

Other cost methods are “reproduction cost,” which is the cost of currently building a property identical to the subject. “Replacement cost” is the cost of currently building a property with identical utility to the subject. For instance, it is the current cost to replace a generating plant of a certain megawatt capacity using current technology to produce the same megawatt capacity.

In calculating the cost, a depreciation calculation is used that limits the percentage of depreciation that can be taken. For electric companies, the depreciable utility plant of the company is compared to the book depreciation. Depreciation is allowed up to 20% of the depreciable utility plant. If the book depreciation exceeds 20% of the depreciable utility plant, then 50% of the excess is allowed. This issue is important because Minnesota is more stringent in its depreciation allowance than other states.

Barring unusual circumstances, the cost approach is the original cost less the depreciation as limited.

2. Income approach

The net income from the utility operations is used for the income approach. Net income is the operating revenue, minus operating expenses, and minus depreciation and taxes, but with no deduction of financing expenses. Income from non-operating sources is not considered. The result is weighted and capitalized at a rate recomputed each year. The 1999 rate was 9%.

3. Reconciliation

The third step is to reconcile the cost and income approaches. The cost approach is weighted 75% and the income approach 25%. More weight is put on cost because the companies are regulated and have a reasonable chance of making the allowed rate of return. The rate of return is not guaranteed, but is an allowed rate of return.

4. Allocation

The fourth step is allocation of the value between the states. The location of the property and revenues from the operating property is used to allocate value. Revenues from providing a service, such as wheeling electricity, are allocated to where the transmission lines are located.

For the sale of electricity, revenue is allocated to where the electricity is delivered. The location of the property is weighted 90% and revenue 10%.

5. Deducting locally assessed and non-taxable property

The next step is to deduct any property not included in the taxable value. This includes property such as office furniture, vehicles, spare parts and locally assessed offices, warehouses and garages. Those properties are deducted at cost less depreciation, if applicable.

6. Apportionment

The last step is apportionment or dividing the taxable market value between the unique taxing areas where the property is located. The companies provide the cost of the property in each unique taxing area. A unique taxing area is the geographic area subject to the same rates and the same combination of county, city or township, school district and special taxing districts. Minnesota has approximately 6,100 unique taxing areas.

Differences Between Investor-Owned Valuation and Other Utilities

The main difference between investor-owned electric company valuation and cooperative valuation is the deduction for locally assessed and non-taxable property. For cooperatives, the deduction for locally assessed and non-taxable property is the total market value times the cost of deductible property divided by the cost all total property in Minnesota.

Valuation of Property in a Restructuring Environment

The current methods of valuing utility property are valid only in a highly regulated environment. The effect of future restructuring on the value of utility property is unknown; the methods should be reviewed if the Legislature adopts restructuring laws. If the electric industry is restructured, the separation between real estate and personal property and the division between generation, transmission and distribution will raise new issues.

Minnesota Statutes and the Federal Code of Federal Regulations provide guidance to the electric industry around these issues. As the regulation of such company changes, the DOR will have to review the method of valuing electric companies to address disparities in valuation methods between states.

In the past, very few sales of utility property have taken place. Therefore, the procedures for setting the value have been based on theory more than on the experience of analyzing sales. One theory is that property used in the production of income will sell for an amount based on income capitalized. Another theory is that if the property is expected to be able to earn a reasonable income, it is worth its cost to build (less accumulated depreciation since it was first installed).

Other factors may also enter into a price decision. Facts such as having a property already built may influence a purchaser or seller. The cost of alternatives, such as the various fuels available to generate electricity, will influence the decision.

Three main options exist for changing the valuation method:

1. Retain the unit value method.
 - Depreciation would be allowed in full as reflected in the books of the company.
 - Obsolescence could be considered for companies with low income.
 - The weighting of the cost and income could be changed.
2. Research replacement cost.
 - Replacement cost is the cost of replacing the capacity of a property using modern technology.
 - Replacement cost would require the use of completely different valuation methods.
3. Research the sales comparison method.
 - In order to use the sales comparison method, sales of property nationwide would need to be reviewed.
 - The validity of using sales from other states would need to be evaluated.
 - Determine whether enough detailed information on sales taking place in other states is available to make the comparisons valid and meaningful.

The DOR recommends keeping the current unit value method with some modifications, depending to what extent the Legislature allows restructuring the industry. However, if enough sales occur of these types of properties, the DOR would have to consider a dramatic change in the method of valuation. The Legislature should be aware that actions taken to restructure the electric industry could have substantial tax consequences.

Chapter 5

Nexus and Sales Tax Issues in the Restructuring Environment

Several important non-property tax issues must be discussed in a restructuring environment. One of the issues is “nexus,” or the establishment of physical presence of an entity selling goods or services in a state.

Prior to restructuring, nexus was not a major issue since utilities seldom did business outside of the state in which they were located. But in a restructured environment, whether at the wholesale or retail level, electricity can be generated in one state and sold throughout power grids around the country. As the industry evolves, it will look more and more like an interstate business selling tangible personal property in many places.

The transmission of electricity into a state in which the seller has no generating or distribution facilities creates an open question of whether the seller has nexus. Tax policies must not impede the flow of commerce, and state law cannot create nexus for tax purposes. However, establishing the definition of electricity as a tangible product can clarify nexus in Minnesota for sellers of electricity.

What Is Nexus?

Nexus is generally defined as the presence or connection a taxpayer has in a state. Nexus to impose a tax occurs when that presence is sufficient for the state to assert a right to tax the transactions or activities of that taxpayer without violating various constitutional provisions. The income attributed to the taxing state must be rationally related to the values connected with the taxing state. The elements of physical and economic presence required before Minnesota can impose income or corporate franchise tax are in Minn. Stat. §290.015.

Federal law⁶ limits a state’s ability to impose a net income tax on income derived from interstate commerce if the taxpayer’s activities within the state are limited to:

1. Solicitation of orders by such a person, or his representative, in the state for the sales of tangible personal property, which orders are approved or rejected outside the state, and shipment or delivery of tangible personal property is from a point outside the state; and
2. Solicitation of orders by such person in the name of or for the benefit of a prospective customer.

Nor does the taxpayer’s independent contractor status create nexus through solicitation activities, even if the independent contractor has an office in the state. The provisions of the law do not apply to a person who is a domiciliary of the state that is imposing the tax. Furthermore, this federal law does not apply to the sales of services.

If the taxpayer has nexus in Minnesota, the state apportions a sale of tangible personal property within the state if the purchaser receives the property in Minnesota, regardless of f.o.b. point or other conditions of sale.⁷

⁶ 15 U.S.C. §381

⁷ Minn. Stat. §290.191, subd. 5(b)

Sales of services are attributed to the state where the services are received, usually where the service customer has a “fixed place of doing business.” This apportionment rule applies without regard to where the service is actually performed.⁸

Nexus for Sales and Use Tax Purposes

Identifying which taxpayer’s activities are sufficient to subject the taxpayer to a state’s taxing jurisdiction remains one of the most perplexing problems facing state revenue departments. Taxpayers have an equally difficult time determining the jurisdictions in which their activities may be sufficient to subject them to tax collecting and remitting responsibilities.

Although states have the implicit jurisdiction to impose a tax, their jurisdiction to tax is subject to some limitations. Among those limitations are the federal constitutional limitations found in the Commerce Clause and the Due Process Clause, as well as those limitations that a state may voluntarily impose upon itself. Public Law 86-272, which limits nexus for income tax purposes, does not apply for sales or use tax purposes.

To determine whether a taxpayer’s contacts with a state constitutes nexus, it is often necessary to make a complex analysis of various federal and state constitutional, statutory and case law doctrines. Because federal statutory protection against state taxation is very limited in scope, the U.S. Constitution is often the standard by which a state’s attempts to establish nexus is judged. The Due Process Clause and the Commerce Clause restrict a state’s ability to assert nexus.

Despite the Tenth Amendment granting to states all powers that are not delegated to the federal government or that are not prohibited under the U.S. Constitution, a state’s interpretation of nexus is valid only if it does not violate the Commerce Clause or the Due Process Clause. When determining the validity of a state tax, it is important to distinguish those elements required by the Commerce Clause from those required by the Due Process Clause. In general, the primary focus of the Due Process Clause is to treat taxpayers fairly, while the primary focus of the Commerce Clause is to assure evenhanded trade between the states.

Additionally, Congress has the complete power under the Commerce Clause to authorize or forbid taxation that affects interstate commerce. The Due Process Clause, however, does not give any powers to Congress. As such, if a state tax is found to be unconstitutional under the Due Process Clause, Congress cannot pass legislation to allow it. However, if a state tax is declared unconstitutional under the Commerce Clause, Congress has the power to pass legislation to allow or control the tax.

Nexus Under Both Due Process and Commerce Clauses

To achieve nexus under both the Commerce and the Due Process Clauses, there must be an adequate connection between the state and the taxpayer upon which a tax or a tax collection requirement is being imposed, as well as a physical presence of the taxpayer in the state. Generally, the Commerce Clause is a higher standard in that a “physical presence” that satisfies the Commerce Clause’s “presence” requirement is probably sufficient to satisfy the Due Process “presence” requirement.

⁸ Minn. Stat. §290.191, subd. 5(j)

With respect to nonresident taxpayers, the types of physical presence that the courts have determined to be sufficient in satisfying the nexus requirement of the Commerce Clause include the presence of employees, agents or tangible personal property within the taxing state. The minimum connection under the Due Process Clause, however, does not require the same physical presence that is required by the Commerce Clause.

States look to two court cases to govern the issue of nexus:

1. *National Bellas Hess, Inc. v. Department of Revenue of Illinois*, 386 U.S. 753 (1967)

In this case, the U.S. Supreme Court held that a state could not impose a use tax collection responsibility on an out-of-state seller whose only contact with the state occurred when it had advertised its products by mailing catalogs and flyers from a place outside of the state to customers within the state and, subsequently, filled orders from those customers by common carrier or mail from a place outside the state. The seller had no place of business in the state, had no individuals soliciting sales on its behalf within the state, and had utilized no advertising that had been entirely local.

The court's opinion did not separately analyze the nexus requirements for each of the clauses. This led many lower courts to interpret the decision to mean that a physical presence was not only sufficient for jurisdiction under the Due Process Clause, but was also necessary.

2. *Quill Corp. v. Heitkamp*, 504 U.S. 298 (1992)

In *Quill*, the U.S. Supreme Court provided its most extensive discussion of nexus to date. The court, citing *Bellas Hess*, held that an out-of-state mail-order seller with no physical presence in a state, which merely mails catalogs into the state and fills orders by U.S. mail or common carrier, is protected by the Commerce Clause from the imposition of a use tax collection responsibility in the destination state.

In *Quill*, the taxpayer was a mail order seller that solicited business in the state by distributing catalogs and flyers through the U.S. mail, placing advertisements in periodicals, and by telephone. Quill had no direct physical contacts with the taxing state, other than a few computer disks sent to North Dakota customers, and did not utilize the services of an agent located in the state.

Despite its emphasis on the bright-line physical presence rule under the Commerce Clause, the court did not state whether this rule extended beyond mail order sellers and did not clearly define the term "substantial nexus" for its use in the Commerce Clause test. The court found that the "minimum contacts" requirement of its Due Process Clause did not demand a physical presence but that the Commerce Clause required a higher level of contacts, i.e., a "restructured nexus" with the state. As a result, many states and taxpayers are grappling with these issues in attempting to find the amount of presence required under both clauses.

Nexus and Electric Utility Restructuring

The constitutional issues surrounding nexus could become more complex with the restructuring of the electric utilities industry. Differences in the type of entities making the transaction and the

mode of transportation and delivery, may make it more difficult to determine whether an out-of-state seller has established nexus with a state.

The following examples illustrate nexus questions that may arise in a restructured environment:

- A marketing company⁹ located outside Minnesota buys and sells electricity like a commodity broker, but occasionally sells electricity directly to customers located in Minnesota. All sales transactions are conducted over the Internet. The marketing company owns no property in Minnesota and does not have any employees in Minnesota.
- A generation company¹⁰ located outside Minnesota produces its own electricity and sells to Minnesota customers. The electricity is sent through power grid lines owned by someone else.
- A generation or marketing company located outside Minnesota hires a metering service provider located outside Minnesota to read via satellite electric meters located in Minnesota. The local distribution company¹¹ owns the meters in Minnesota.
- A generation or marketing company located outside Minnesota hires a metering service provider located outside Minnesota to read via satellite electric meters located in Minnesota. The metering service provider does not own the meters in Minnesota but does send employees into Minnesota to maintain and repair the meters.

These examples illustrate the challenge for the Legislature and tax administrators in drafting tax laws that are clear and easily administered.

Other Sales Tax Issues

Defining electricity as a tangible product

Another consideration is defining electricity as a tangible or intangible product. Electricity has always been classified as a service, but is it a product that is tangible or intangible? The Minnesota courts have referred to electricity as a “marketable product.” The DOR currently treats electricity as a tangible product by allowing the same exemptions as other tangible personal property for generation of electricity, such as exempting electricity for the industrial production exemption and the capital equipment exemption.

The National Streamlined Sales Tax project, a multi-state project to harmonize sales tax definitions and bring uniformity to state’s administration of the sales tax, recently voted to define electricity as tangible property, since most states define electricity as tangible.

⁹ Electric Marketing Company – This would purchase electricity from various generating companies and package it together and sell to individual users, other marketing companies, and local distribution companies. Again, depending on legislation, the marketing company could be required to be a separate entity from the generation company.

¹⁰ Electric Generation Company – This would be the power plants only.

¹¹ Local Distribution Company – This would have the electric utility lines from the transmission company to the individual user of electricity.

For sales tax purposes, Minnesota taxes sales of tangible personal property when title or possession is transferred here, and sales of certain services, depending on where the service is performed.

Capital equipment

The treatment of certain purchases of capital equipment eligible for a refund of the Minnesota sales or use tax is also a consideration. Minn. Stat. §297A.01, Subdivision 16 provides the definitions for capital equipment and details what is and is not considered capital equipment for purposes of the sales or use tax refund. The following are some of the definitions and provisions found in Subdivision 16 to keep in mind when discussing generation and distribution of electricity:

- “Capital equipment” means machinery and equipment used by the purchaser or lessee primarily for manufacturing, fabricating, mining, or refining tangible personal property to be sold ultimately at retail, and for electronically transmitting results retrieved by a customer of an on-line computerized data retrieval system.

Capital equipment includes all machinery and equipment that is essential to the integrated production process. The terms “essential” and “integrated production process” are defined in Revenue Notice 97-05 as they relate to the production process for tangible personal property. Separate revenue notices were issued for the generation of electricity and electronically transmitting results retrieved by a customer of an on-line computerized data retrieval system.

- “Essential” means that the machinery or equipment must perform a necessary or indispensable step in the production process.
- “Integrated production process” means the series of activities that result in the production of tangible personal property to be sold ultimately at retail, including the actual production process. The production process begins with the removal of raw materials from inventory and ends when the last process prior to loading for shipment has been completed, and also includes research and development and design of tangible personal property.
- “Used by the purchaser” the statute clarifies that the requirement that the machinery or equipment “must be used by the purchaser or lessee” means that the person who purchases or leases the machinery or equipment must be the one who uses it for the qualifying purposes.
- “Manufacturing” means an operation or series of operations where raw materials are changed in form, composition, or condition by machinery and equipment and which results in the production of a new article of tangible personal property. For purposes of the subdivision relating to capital equipment, “manufacturing” is defined to include the generation of electricity or steam to be sold at retail.
- “Generation of electricity” is discussed in Revenue Notice 98-15. This Revenue Notice was issued following the Minnesota Supreme Court decision in the Northern States Power Company case. The court held that step-down, load tap and line transformers qualify as capital equipment and are an integral part of the manufacturing process since they transform electricity into a “finished product” that is in a “completed state” usable by the ultimate consumer.

For purposes of the capital equipment exemption, machinery and equipment used in the generation of electricity includes machinery and equipment used to manufacture electricity into a finished product. The revenue notices goes on to state that the manufacturing process begins at the generating plant and ends with the line transformer. Qualifying capital equipment includes step-up transformers as well as poles and wires used after the electricity is generated at the plant but before it passes through the last line transformer.

A recurring issue is the scope of the capital equipment exemption as it relates to the production process and transportation of product. As part of sales tax reform, the DOR is considering clearly defining what equipment is considered to be for transportation or distribution, such as poles and wires, and thus would not qualify for the exemption.

Chapter 6

Minnesota Taxation of Utilities Compared to Other States

Background

A major issue in electric industry restructuring is whether taxation in Minnesota is competitive with other states. Comparing states and how they tax utilities is not easy, since all of Minnesota's neighbors tax utilities differently.

One way to compare states is to estimate the tax liabilities of a company as if it were operating 100% in each of the surrounding states. However, any comparison must be considered in its proper context. For instance, the Iowa targeted its rates to raise the amount of tax levied in 1997. That target amount could change based on periodic reports required by the Iowa Legislature. In North and South Dakota as well as in Minnesota, any new property would have an effect on local tax rates. Those states' examples use average tax rates based on information available from the states.

Comparison Summaries

The taxes for electric utility property in states surrounding Minnesota are summarized as follows:

- **Iowa** has a new system of taxation that levies a generation tax based on kilowatt hours, a transmission tax based on pole miles, and a delivery tax based on deliveries to end users. For more detail, see Iowa Statutes chapter 437A.
- **North Dakota** has a gross receipts tax of 2% (1% for the first 5 years) for cooperatives and a coal conversion tax that in reality is a tax on generation of electricity by use of coal. The state has property tax on land only. Investor-owned utilities do pay tax on electric utility property. For more detail, see North Dakota Statutes chapter 57-60.
- **South Dakota** has a gross receipts tax of 2% in-lieu-of property tax on transmission and distribution personal property, and a property tax on real estate and generation machinery levied on cooperatives. The real estate of cooperatives is locally assessed. Investor-owned utilities pay property tax.
- **Wisconsin** has a gross revenue tax that replaces all property tax on electric companies. This is generally collected at the retail level. Wholesalers may be exempt. If it is paid at the wholesale level, retailers can reduce their tax by the amount collected by the wholesale company. For more detail, see Wisconsin Statutes chapter 76.

Hypothetical Comparisons

The hypothetical comparisons use three kinds of companies:

1. A generation and transmission cooperative
2. Three distribution cooperatives—one rural, one urban, and one rural with significant property in municipalities
3. An investor-owned utility

Comparison #1: generation and transmission cooperative

An electric generation and transmission cooperative that operates in Minnesota and North Dakota would pay the Minnesota property tax and the North Dakota coal conversion tax, as well as some real estate tax on land.

The company would have utility plant in Minnesota and North Dakota as follows:

	Utility Plant	% of Total Utility Plant
Minnesota	\$ 45,619,000	9.8%
North Dakota	\$421,261,000	90.2%
Total	\$466,880,000	100%

The actual taxes charged this cooperative would be:

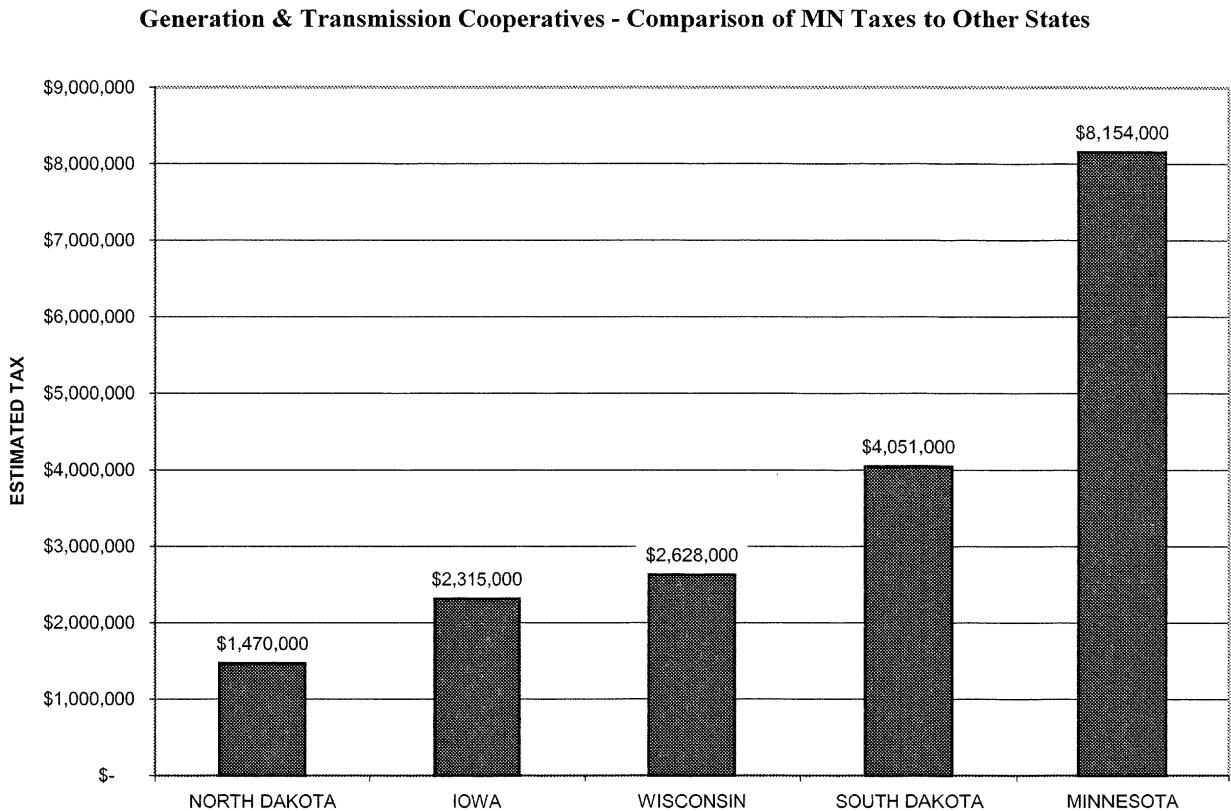
	Actual Taxes Charged	% of Actual Taxes Charged
Minnesota Property Tax	\$1,784,494	54.9%
N. Dakota Coal Conversion Tax	\$1,402,081	43.1%
N. Dakota Property Tax	\$ 64,928	2.0%
Total Tax	\$3,251,503	100%

Again, keep in mind the varying state contexts:

- If this company were located totally in Minnesota, the estimated property tax would be calculated using the average state wide local tax rate and would be \$8,154,000. The exact property tax would depend on the local tax rates of the various taxing districts where the company was located.
- If this company were located totally in Wisconsin, it might be exempt from the gross earnings tax because all of its revenues are wholesale sales. However, the gross earnings calculation is made because in some circumstances a wholesaler may be required to submit the gross earnings tax to Wisconsin. The gross earnings charged at the retail level for this company's added value would be \$82,390,000 times 3.19%, or \$2,628,241.
- If the company's system were entirely within Iowa, the company would pay a generation tax based on 3,311,747,000 kwh times .0006, or \$1,987,048. It would also pay tax on the transmission lines of 468 miles of line times \$700 (the rate per mile for this size of transmission line) or \$327,600. The total tax would be \$2,314,648. Because this is a wholesale company, it would pay no retail delivery tax.
- If the system were entirely within South Dakota, the state would levy a gross earnings tax of 2% at the retail level. In addition, the company would pay an estimated property tax on generation machinery and real estate of \$4,050,500. This amount would depend on the local tax rates.

- If the system were entirely within North Dakota, the coal conversion tax would remain the same as in the previous table. The state would also levy a small amount of property tax on land for a total estimated tax of \$1,470,000.

The following graph summarizes the estimated taxes levied:



Comparison #2: three distribution cooperatives

Three distribution cooperatives exist in this example—one totally rural, the second one rural but with substantial property that is taxed under property tax, and the third an urban cooperative. These three illustrate the tax differences due to the exemption of rural distribution lines.

Note that the purely rural cooperative has no property tax unless it owns offices, garages or warehouses. The example in the table that follows did not report any property tax and assumes that any office may be rented. In addition, the suburban cooperative will pay substantial taxes in any state.

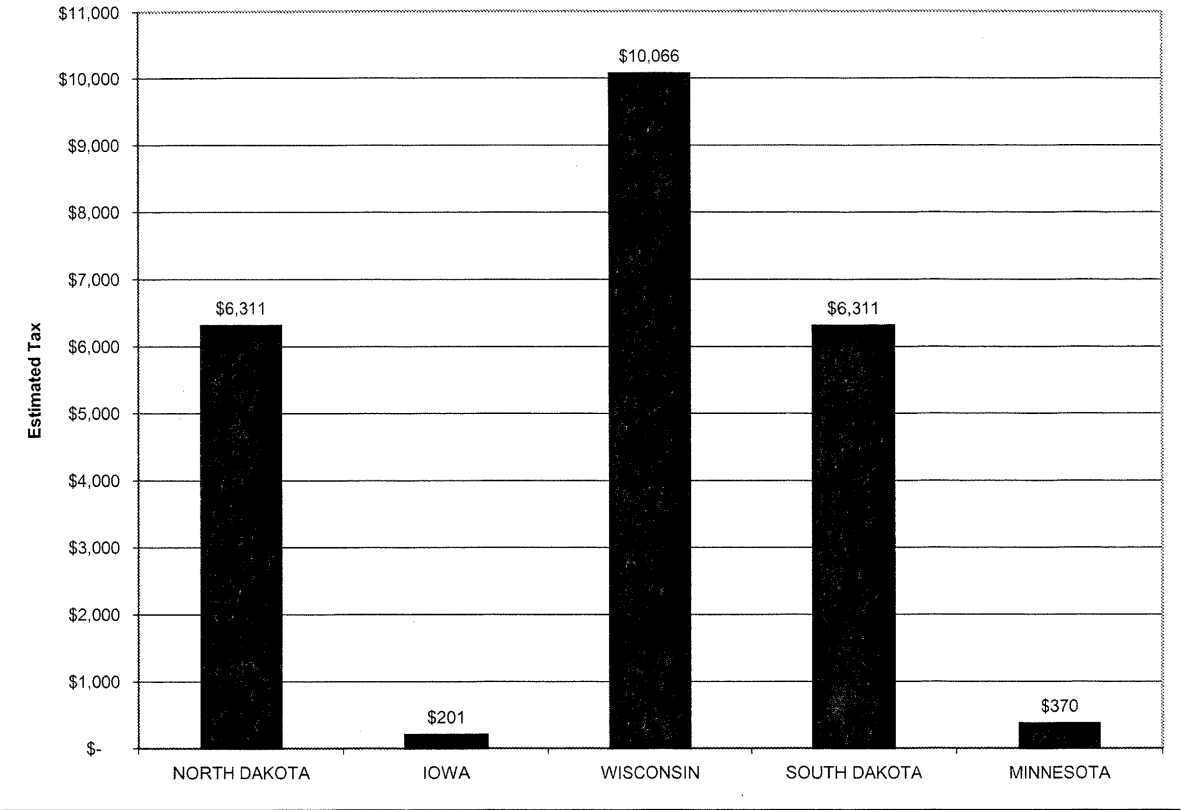
The following table compares these distribution cooperatives across Minnesota and its neighbors. Note that the bottom portion of the table provides additional information regarding the comparison.

State/Type of Tax	100% Rural Co-op	Suburban Co-op	Rural Co-op Serving Cities
Minnesota			
• Co-op member-ship: \$10 per 100	\$370	\$ 8,250	\$22,600
• Property tax	0	\$3,991,474	\$71,249
<i>Total Minnesota tax</i>	<i>\$370</i>	<i>\$3,999,724</i>	<i>\$93,849</i>
Iowa¹²			
Replacement Delivery Tax (low rate)	\$ 201	\$65,087	\$ 13,027
• Replacement Delivery Tax (high rate)	\$13,570	\$4,388,028	\$878,266
• Transmission line at \$550/mile	0	0	\$ 4,400
North Dakota			
• Gross Earnings Tax of 2%	\$6,311	\$1,861,647	\$36,780
• Property tax on land	0	\$ 43,900	\$13,170
<i>Total North Dakota Tax</i>	<i>\$6,311</i>	<i>\$1,905,547</i>	<i>\$49,950</i>
South Dakota			
• Gross Earnings Tax of 2%	\$6,311	\$1,861,647	\$36,780
• Property tax on land and buildings	0	\$ 83,584	\$32,135
<i>Total South Dakota tax</i>	<i>\$6,311</i>	<i>\$1,945,231</i>	<i>\$68,915</i>
Wisconsin			
• Gross Earnings Tax of 3.19%	\$10,066	\$2,969,327	\$58,664
Number of members	3,636	82,462	22,517
Gross sales to end users	\$315,533	\$93,082,350	\$1,838,985
Kilowatt hours sold to end users	4,340,695	1,403,638,894	280,939,179
Taxable property in MN	0	\$91,414,195	\$2,139,610
Transmission line miles	0	0	8
Property tax	0	\$3,991,474	\$71,249
Estimated land value	0	\$2,000,000	\$600,000
Estimated structure value	0	\$1,527,074	\$756,000

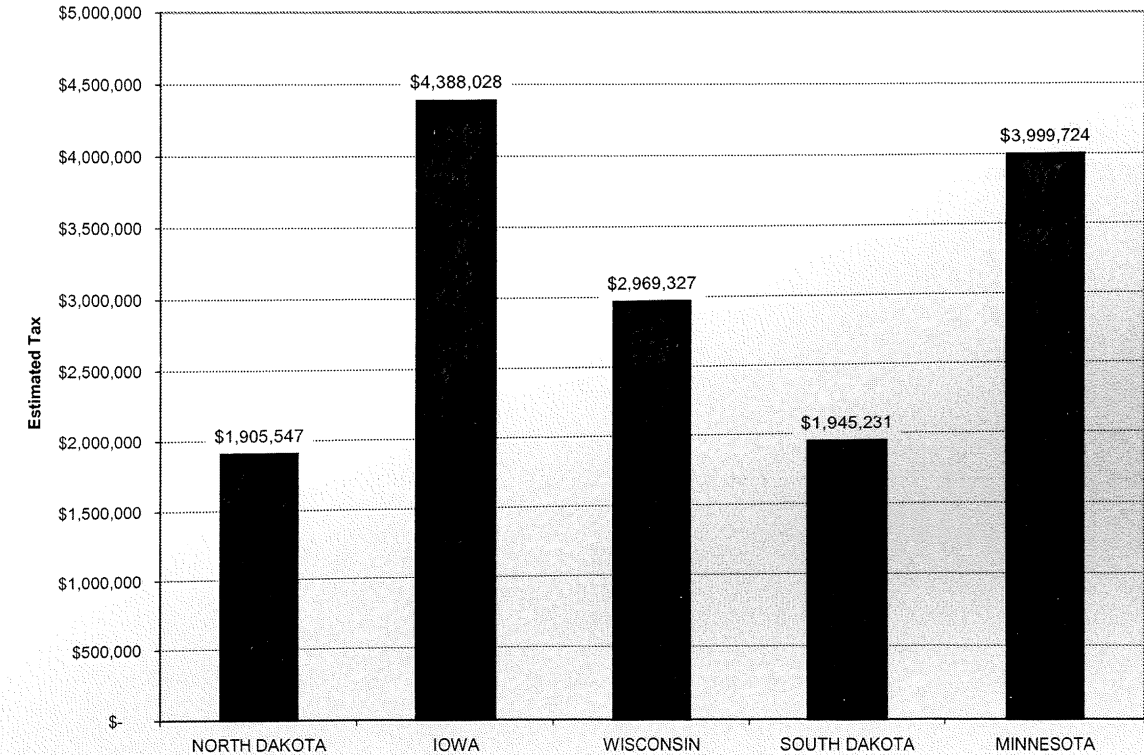
¹² The calculations for Iowa use two different assumptions regarding the delivery taxes. The high rate is for the highest cooperative rate reported and the low rate is for the lowest cooperative rate reported. Because of the specific way Iowa computes the tax rates, the DOR cannot predict which tax rate would apply.

The following three charts display the comparisons of estimated tax for each of the three distribution cooperatives across the five states.

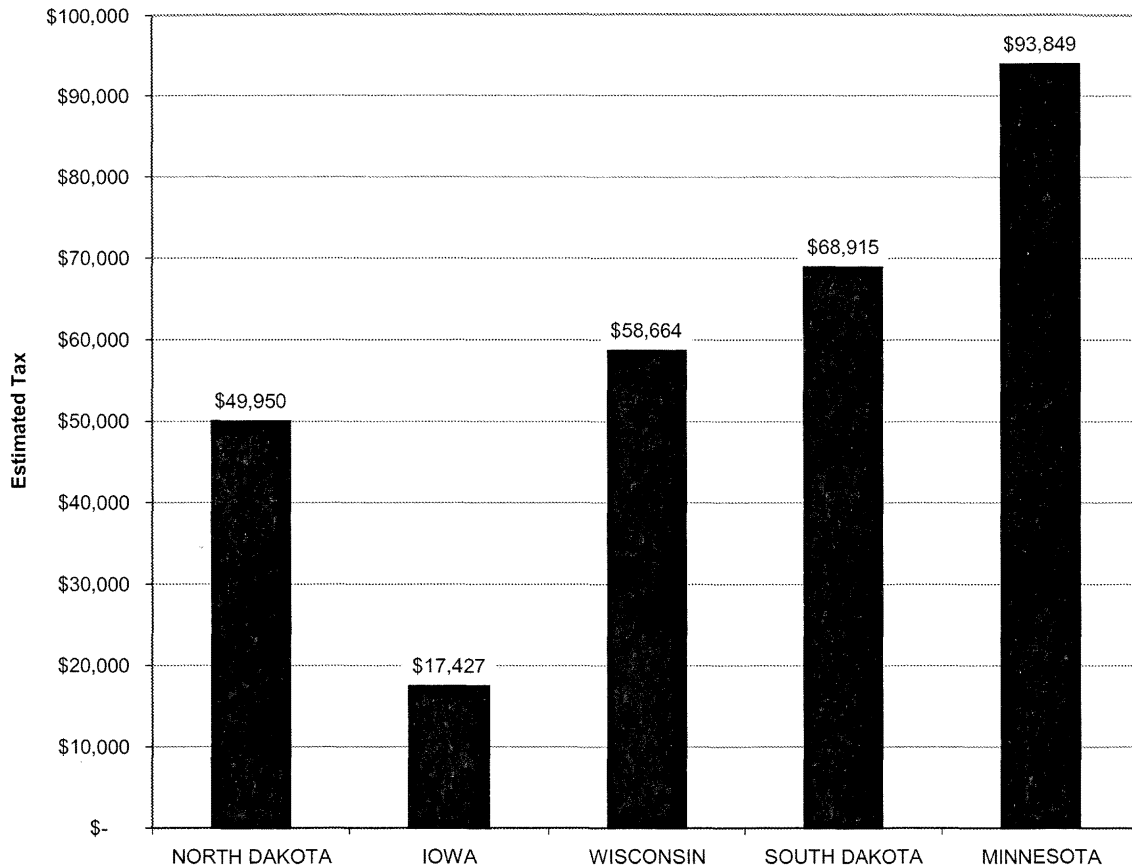
Distribution Cooperative Tax Comparison - 100% Rural Co-op



Distribution Cooperative Tax Comparison - Large Suburban Coop



Distribution Cooperative Tax Comparison - Rural Co-op Serving Cities



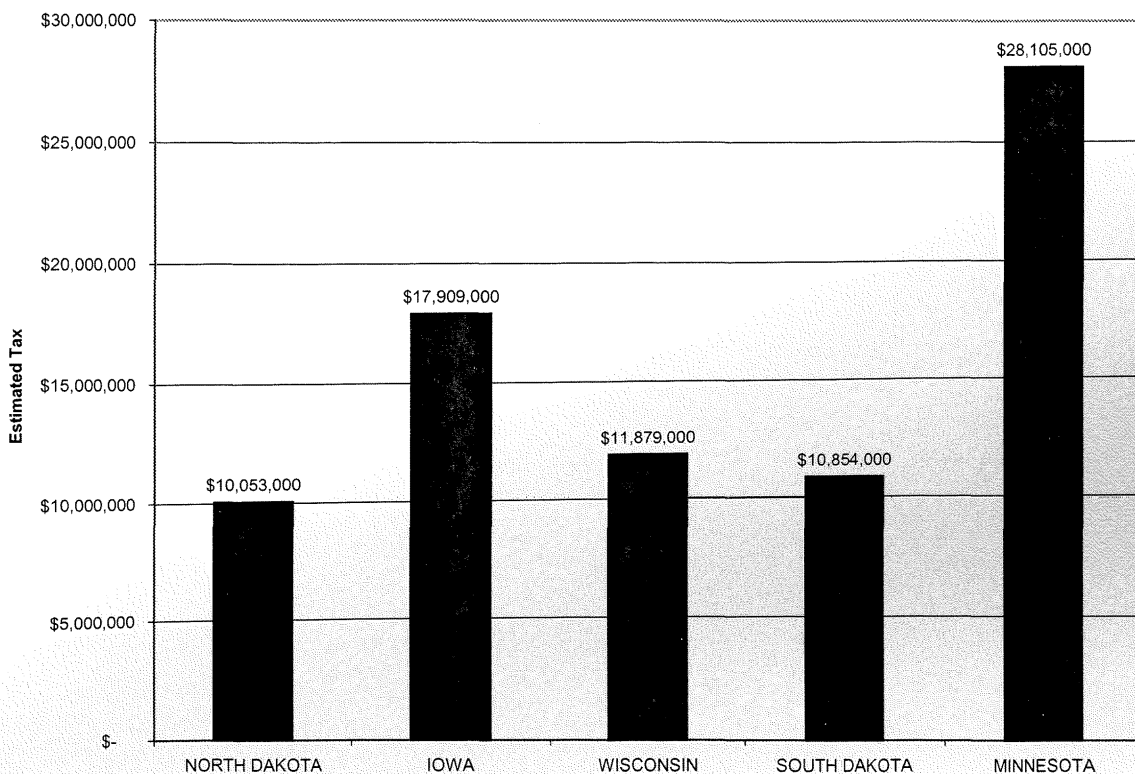
Example #3: Investor-owned utility

The last example is an investor-owned utility. When valuing utility property, many states require appraiser judgment in completing values. Therefore, this example may not be exactly the same as if it had been done by another state. The values and effective tax rates are based on information provided by the state the value is for as well as on effective tax rates computed by the Minnesota Taxpayers Association for taxes payable in 1998.

State/Type of Tax	Investor-Owned Utility
Minnesota	
• Property tax	\$28,105,000
Iowa	
• Replacement Delivery tax	\$ 9,499,596
• Transmission line—various rates	\$ 4,283,750
• Generation tax	\$ 4,125,904
<i>Total estimated Iowa tax</i>	<i>\$17,909,250</i>
North Dakota	
• Gross Earnings Tax of 2%	0
• Property tax	\$10,053,100
<i>Total North Dakota tax</i>	<i>\$10,053,100</i>
South Dakota	
• Gross Earnings Tax of 2%	0
• Property tax	\$10,853,700
<i>Total South Dakota tax</i>	<i>\$10,853,700</i>
Wisconsin	
• Gross Earnings Tax of 3.19%	\$11,879,321

The following chart illustrates the estimated tax for this hypothetical investor-owned utility in each of the states.

Investor-Owned Utility Comparison



Conclusions

Based on this comparison of states surrounding Minnesota, with the exception of rural distribution cooperatives, property tax on electric utility property is 1.5 to 5 times higher in Minnesota. It should also be noted that when generation and transmission property taxes are added to distribution taxes, the total tax continues to be higher in Minnesota. For distribution cooperatives, the low membership tax (in-lieu of property tax), reduces the tax burden greatly.

Iowa's current tax system is new and revised in anticipation of restructuring. The other states have not yet made changes for restructuring. Wisconsin is beginning a study of their taxation of electric utility property. South Dakota is still regarded as one of the few states not studying restructuring. North Dakota is studying restructuring.

Chapter 7

Exemptions

Background

Minnesota has a history of creating various exemptions for utility property. Eighteen sections in Minnesota Statutes contain various exemptions for utility property. Most of the exemptions are for the personal property tax on electric generation machinery.

Between 1994 and 2000, the Legislature passed many exemptions for electric energy-generating machinery by making amendments to Minn. Stat. §272.02¹³. Eight subdivisions in Minn. Stat. §272.02 pertain to specific types of generating plants. While some of the exemptions may be applied to any generating plant meeting certain requirements, such as the efficiency rating exemption,¹⁴ others apply only to plants at certain locations meeting specific criteria (e.g., a generating plant proposed to be built in conjunction with a specific new steel plant.)¹⁵

Other types of property eligible for exemption are the electric distribution lines serving farmers for investor-owned utilities and the rural electric distribution lines for cooperatives.

Exemptions in a Restructuring Environment

Participants in the public meetings hosted by the DOR discussed exempting personal property versus specific exemptions at great length. Industry testimony given at the meetings documented that in order to be competitive, the personal property tax on generating machinery must be eliminated. Others testified that the personal property tax does not result in a competitive disadvantage for utilities. Since most other states do have some sort of property tax on machinery and equipment used to generate electricity, Minnesota is not unique. (Chapter 6 uses hypothetical examples to illustrate Minnesota's tax structure compared to surrounding states.)

The DOR realizes Minnesota's overall tax burden, in addition to the property tax on machinery and equipment, does raise the concern of competitive disparities and higher prices. It is likely that as the industry moves toward retail competition, the impact of tax policy on prices will become more pronounced. It is also likely that larger customers will be able to hold down costs by actively pursuing other energy sources.

Another important concern is whether, in a restructuring environment, Minnesota's tax policy would favor some types of energy providers at the expense of others. In its 1997 report, the DOR found that removing the personal property tax on attached machinery reduces the disparity between different energy providers within the state.

Participants in the meetings discussed several possible scenarios for changing the taxation for generating plants:

1. Exempt attached machinery (personal property) of all new plants.

¹³ See page 12 for specific details relative to exemptions.

¹⁴ Minn. Stat. §272.0211

¹⁵ Minn. Stat. §272.027, subd. 3

2. Exempt attached machinery (personal property) of new plants meeting certain criteria such as efficiency.
3. Exempt attached machinery (personal property) of all new and existing plants.
4. Exempt attached machinery (personal property) of all generating plants from the general education levy.
5. Reduce the taxation of generating plants, both real and personal property, to close to the level of taxation of other states.

Both industry and host communities have stated that any change in taxation should not disrupt the local units of government that host these facilities. The table below shows the amount of revenues raised by the attached machinery levy¹⁶.

**Estimated Property Tax
Revenue Impact of Exempting
Electric Utility Attached Generation Machinery
Pay 2000**

	(\$000)
City	\$17,328
County	20,637
School	29,081
Township	166
Other	2,022
Total	\$69,234

Specific Exemptions

As mentioned earlier, several different exemptions exist to the tax specified in statute. Two of the more broadly applicable exemptions are the efficiency and the pollution control exemptions:

- **Efficiency exemption**

The efficiency exemption is the exemption of highly efficient generating plants.¹⁷ Any generating plant with an efficiency rating of more than 35% may qualify for a partial or total exemption from the property tax on machinery.

- **Pollution Control Equipment exemption**

Pollution control devices may qualify as exempt under Minn. Stat. §272.02, subd. 10 for some generating plants. While the DOR recognizes the public policy reason to exempt pollution control devices, this process has proven cumbersome for the agency and taxpayers. The DOR recommends changes to the process used to evaluate and grant this exemption.

If the goal is to increase efficiency of generating plants and encourage certain pollution control standards, then new plants or improvement to old plants could receive special treatment through better-targeted exemptions. Chapter 8 discusses environmental issues raised at the public meetings.

¹⁶ See Appendix B for full detail.

¹⁷ Minn. Stat. §272.0211

Chapter 8

Environmental Issues

In accordance with the study language, one of the public meetings was devoted to the environmental concerns of restructuring. Representatives of Minnesotans for an Energy-Efficient Economy (ME3) and the Izaak Walton League of America presented on the issue. Their testimony specific to tax issues is included below.

C. Ford Runge, professor of applied economics and law at the University of Minnesota, argued that property tax reform of generating property should apply certain principles. They are as follows:

- **Hold harmless:** no net reductions in local level of public provision of services.
- **Target costs and benefits:** target personal property tax relief to create incentives for technological efficiencies and environmental improvements.
- **Parallel process or “no something for nothing”:** tax relief should occur in tandem with reduced emissions on an orderly schedule.
- **Innovation is local:** tax relief should occur plant-by-plant, focusing on plants where, for example, emissions per person are highest.

According to Dee Long of ME3, precedents exist for integrating environmental concerns into tax policy. All of the exemptions granted by the Legislature thus far are for generating plants that use fuels that create less pollution than coal, fuel oil or nuclear fuel.

Michael Noble of ME3 urged Minnesota to adhere to the following principles. According to him, Minnesotans need:

- Clean power for cleaner air, cleaner water and improved health.
- Reliable, reasonably priced energy now and in the future.
- The economic and environmental benefits of expanded renewable energy development.
- Energy policies that are fair and equitable.

Environmental Issues in a Restructuring Environment

The DOR believes that even the oldest exemption for utility property—the pollution control property exemption—is to be designed to reduce harmful emissions.¹⁸ Those testifying urged that the DOR consider the type and quantity of emissions by generating plants in granting further exemptions. While existing exemptions appear to be in place to improve pollution control, the DOR recommends that any current or pending tax expenditures be considered by the 2001 Legislature with regard for effectiveness in carrying out the public policy objective.

¹⁸ Minn. Stat. §272.02

Chapter 9

Analysis of Host Communities and Issues of Local Debt

The DOR has completed a review of property tax paid on generation plant machinery for taxes payable in 2000. The total property tax on generation plant machinery was about \$69.234 million.¹⁹ Estimates of the distribution of this tax show that in 2000, counties collected \$20,636,766 in property tax for generation machinery. Of that amount, an estimated \$1,714,203 was for debt service. For cities the estimated amounts are \$17,328,153 in property tax for generation machinery with \$5,565,972 allocated to debt service. The fiscal impact of the generating machinery levy on individual county/city/township governments is detailed in Appendix B.

Eliminating the property tax on existing generation machinery would reduce the property tax revenues available to local governments for satisfying operating and debt obligations. School districts and townships also receive support from property tax on generation machinery. Appendix B shows the amount of tax revenue that could be lost by local jurisdictions. The appendix also lists, by local jurisdiction, an estimated share of the property tax on generation machinery that is used for debt obligations. Any lost revenue would likely be made up by increases in local tax rates, which would shift the tax burden to other property taxpayers.

Issues of Local Debt

Obligations, both debt and operating, are paid for by an existing tax base. So, changes to that base are an issue for taxpayers within the same jurisdictions. The following are additional aspects of this issue that specifically relate to debt obligations.

Credit ratings

Credit ratings are based on each rating agency's evaluation of numerous factors that are expected to provide an indication of a community's ability to pay its debts. Credit ratings are a measure of risk: the greater the risk, the lower the credit rating. The factors used to evaluate risk vary from agency to agency, but include indicators such as a community's economic vitality, tax base, debt level, financial management history, and make-up of elected officials and administrators.

Taxable market value also plays a part in determining a community's credit rating. Two market value indicators used to evaluate local credit ratings are market value per capita and debt per capita. Drops in total taxable market value are considered a sign of distress by rating agencies.²⁰ Rating agencies will already have considered the potential for loss of taxable market value attributable to generating machinery and will have incorporated this consideration into the current credit rating.

However, it is possible that credit ratings of certain communities could be downgraded if this potential reduction in the tax base is realized. A reduction in credit ratings would make it

¹⁹ This amount includes the substation located at the generating plant. See Appendix B.

²⁰ Changes in the market value would also affect the distribution or costs of some state aids and credits, for programs ranging from Local Government Aid to school debt service equalization.

more expensive for local communities to issue new debt. These risks are speculative and cannot be reasonably quantified.

Existing bond-holders

A lower credit rating that may result from removing generating machinery from the tax base (as described above) would affect bond-holders. At some level, financial default by certain local jurisdictions would be more likely. Individuals, businesses, governments, and other organizations would expect to receive a reduced price for their bonds if they sold these bonds prior to maturity. The market would assign greater risk to the bonds, which would necessitate a lower sales price. This risk is difficult to quantify and it may be one of the types of risk that bond-holders are expected to bear.

The state probably would not, however, expect existing debt-holders to bear the cost of any default that specifically resulted from state action. If the state eliminates the tax on generating machinery, it could protect bond-holders from the risk of a financial default by passing a law that would have the state pay existing bondholders in the event of a local default if state funds are available. This provision could apply to the existing debt instruments in jurisdictions with the greatest potential for receiving lower credit ratings.

If the state were to do this, there would be no immediate impact on the state budget, but the state would incur the credit risk associated with individual communities and would have responsibility to pay for a financial default on these bonds. Some local communities could end up with higher credit ratings for particular debt instruments than they had before generation machinery was eliminated from the tax base.

Length of commitments

Existing bond commitments, which vary and can be lengthy, are not subject to change. Bonds may be defeased or paid off after a call period, but these actions require significant resources.

If Minnesota were to eliminate generating machinery from the local tax base and replace a portion or all of the lost revenue with state aid, the aid may change over time or be changed by the legislature in times of economic downturn. These possibilities may be considered more likely than major changes in the property tax base. Credit rating agencies may believe as do local governments, that state aid is not as reliable a revenue source as a local tax.

Debt limits

The state sets limits on the authority of local jurisdictions to issue bonds, and local jurisdictions are subject to debt limits. These debt limits are often set at a percentage of taxable market value. Changes in market value could affect the calculation of these debt limits and could put local jurisdictions out of compliance with state requirements or change a jurisdiction's ability to issue new debt. However, many debt issues are for improvements that do not count toward the legal debt limit.

Example Debt Limits: County Building Financing Options²¹	Generally Applicable
General Obligations ²² Bonds (paid entirely from property taxes) (Minn. Stat. § 475.53, subd 1)	.02 * TMV ²³
Courthouse Bonds (Minn. Stat. § 375.18)	.0004030 * TMV
Capital Improvement Plan/Bonds (Minn. Stat. § 373.40)	principal and interest payments must not exceed .0005367 * TMV
General Obligation Bonds for Jails (Minn. Stat. § 641.23)	principal and interest payments must not exceed .09671 * MV

Local Government Effects in a Restructuring Environment

It seems likely that removal of generating machinery from the tax base would have no debt-related effects in most jurisdictions. The issue would be the reduction in tax revenue, with no special concern for debt obligations versus operating obligations. A few jurisdictions could suffer special problems relating to debt obligations. The example below illustrates this point.

The estimated debt levy as a percent of the total levy for both St. Paul and Becker are relatively high, 31.4% and 54.6 % respectively.²⁴ However, elimination of generation machinery from the tax base would have less effect on St. Paul's ratio of debt to taxable market value, but would represent a large percentage change for Becker.²⁵

This change raises the question of the appropriate level of the ratios. Should the state hold all communities harmless, or only step in if a change results in an unacceptably high level of debt to taxable market value in certain communities?

City	1998 Debt	1998 Total MV	1998 Mach. MV	Debt /MV w/Mach.	Debt/MV w/out Mach.	Percent Change
St. Paul	\$207,713,534	8,489,603,118	35,317,400	2.45%	2.46%	0.41%
Becker	44,070,000	726,519,413	464,464,400	6.07%	16.82%	117.10%

²¹ Summarized from materials prepared by Ehlers & Associates, Inc., Roseville, MN, April 2000.

²² General Obligation means any obligation that pledges the full faith and credit of a city, county, town, or school district to its payment. Minn. Stat. § 475.51 subd. 10.

²³ Taxable Market Value (TMV) and Market Value (MV) generally are considered to have the same meaning for the purpose of determining debt limits. TMV is the total taxable market value of property within a local unit of government before adjustments for tax increment, fiscal disparity, power-line credit, or wind energy values, but after limited market adjustments and market value exclusions of certain improvements to homestead property under Minn. Stat. § 273.11. Minn. Stat. § 273.032.

²⁴ See Appendix B.

²⁵ For other cities, see Appendix C, "Impact of Machinery Market Values on County and City Debt To Market Value Ratios."

Clearly, in addition to debating the merits of replacing lost revenue for utility communities, the DOR will have to consider the effects on debt obligations for those jurisdictions with a relatively large share of generation machinery levy used for debt. A comparison of local tax rates, as shown in Appendix B, is also useful for determining the extent of any damage to local credit ratings. If, for example, a city is well below the state average, its credit rating may not be affected.

Appendix A

Glossary of Utility Terms

The following terms are used in the central assessment of utility property. Most of them originate from the Western States Association of Tax Administrators. The remaining terms are from general use in the Minnesota Department of Revenue.

Accelerated depreciation refers to methods of accruing greater depreciation expense in the early years of a property's life and less in the later years. Two methods of accelerated depreciation are (1) sum of the year's digits and (2) declining balance (see section 167 Internal Revenue Code).

Accrued depreciation is the amount of depreciation to date; when recorded as a dollar amount, may be deductible from total plant value or investment to arrive at the rate base.

Ad Valorem According to the value. Property tax is an ad valorem tax.

Allocation to states refers to the process of assigning a portion of a unit value or system statistic to a state.

Allowance for funds used during construction is the process of capitalizing interest expense on funds used during the construction period. As property does not generate earnings during construction, the capitalized interest expense represents imputed earnings. The capitalized interest becomes part of the total cost of the project.

Amortization is the orderly writing off of an investment by making periodic charges against current income. Also refers to the orderly retirement of an obligation by making periodic payments to the creditor.

Antipollution controls are regulations or standards set up under federal and state laws to correct abuses leading to the contamination of clean air and water supplies by smoke, smog, fumes, hazardous radiation, and other emissions, including those from nuclear or other electric generating plants.

Apportionment to intrastate jurisdiction refers to the process of assigning a portion of a state value or state statistic or company statistic to geographical areas, usually tax levying districts or codes within the state.

Assessment ratio is the relationship of assessed value to market value or to some statutory value such as actual value, true cash value, etc.

Attached Machinery – Machinery that is not easily moved and is assessed as real property.

Band-of-investment is a method used to compute a capitalization rate. The simplest form of band-of-investment computation requires estimating the appropriate debt/equity ratio, the interest cost of debt, and the rate of return on equity capital (typically the most subjective element). The weighted rates on debt and equity are added to obtain the band-of-investment rate.

Bond rating is a classification assigned by financial reporting institutions reflecting relative standings as to risk. The classification may include consideration of management, revenue prospects, regulatory climate, operating costs, and many other aspects of business operations.

Book depreciation is the total accruals recorded on the books of the owner of property summarizing the systematic and periodic expenses charged toward amortizing the investment of limited-life property over its expected life.

Book value is the cost of a property as carried in the accounting records of the owner less the accrued depreciation reserve for that property. Also referred to as “net book.”

Capital structure refers to the manner in which a firm is financed, that is, the amount and kind of equity and debt that satisfies the need for funds.

Capitalization process is the conversion of a series of income payments or a single income payment into property value by means of a rate, multiplier, or present worth factor.

Capitalization rate is any rate used to convert income into property value or to impute income from property value. In this context it includes all rates used in the capitalization process, i.e., yield rates, discount rates, direct capitalization rates, inc.

Common carrier is an individual, corporation, or entity engaged in transporting persons, goods, or messages for compensation over a regular route, on a certain schedule, or at a published rate, all of which are subject usually to government regulation.

Deferred federal income taxes result from the use of accelerated depreciation or accelerated amortization that allows larger depreciation accruals and lower income taxes during the early years and higher taxes later on, other things remaining equal. Such a procedure defers to later years the payment of income taxes otherwise payable during the earlier years under the straight-line method. Liberalized depreciation can produce a similar result.

Depreciation with regard to appraisals is the loss in value of an item due to all causes. Sometimes it is meant to be physical deterioration but in a strict sense it would include functional and economic obsolescence.

Direct capitalization is the conversion of a single year's earning expectancy into property value by means of a capitalization rate or income multiplier that properly reflects this relationship as observed in the market.

Distribution lines carry power from substations to customers.

Economic life is the productive life of a property, in contrast to its physical life, which could be greater.

Effective Tax Rate The ratio of the annual property tax on a property to the market value of the property; the actual tax rate times assessed value divided by market value; official tax rate times assessment ratio.

Equity is the term used to denote the owners' interest in the business. In monetary terms, it is the amount of money the owners have invested in common and preferred stock plus earnings of the business that have not been paid out as dividends.

Expense is the gross dollars paid for materials or services. Operating expenses mean direct and incidental expenses in carrying on the primary business, e.g., expenses of an electric utility in producing electric revenues.

Federal Energy Regulatory Commission (FERC) was created in 1977 as an agency of the newly established Department of Energy. The FERC was granted various regulatory powers over gas and electric utilities. The more significant powers are licensing of hydroelectric projects, regulation of interstate electric rates, and regulation of interstate transportation and wholesale sale of natural gas.

Form 2 report refers to the annual report of operation filed by interstate natural gas and electric transmission companies with the Federal Energy Regulatory Commission.

Functional depreciation refers to obsolescence or loss of service usefulness due to technological advances or social requirements.

Highest and best use is the use that generates the highest net return to the property over a period of time.

Historical cost is the first cost of a property item regardless of the present owner or interim sales transactions. It usually refers, in utility properties, to the cost of a property item when first devoted to public service.

In lieu means "in place of."

Income approach to value is the method of appraisal that involves the analysis of incomes and expenses of income-producing properties; the use of the capitalization of income to produce property value indicators.

Indicator of value is a statement of the worth, expressed in dollars, of a specifically identified item of property (be it a single parcel of land and/or piece of equipment or an extensive corporate conglomerate) based upon consideration of particular characteristics or attributes of that property. Indicators of value are based upon cost, income and comparable sales.

Installed capacity is the number of kilowatts a power plant is capable of producing as shown by the nameplates affixed to the generators by the manufacturer.

KWH (Kilowatt-hour) is a measure of electrical energy used (1,000 watts for one hour) and is commonly the measure against which electrical rates are applied to determine electrical customer charges.

Megawatt (MW) is 1,000 kilowatts.

Net operating earnings are earnings from system plant of the utility after the deduction of operating expenses, depreciation, and taxes but before any deduction for interest.

Obsolescence is the lessening of value due to causes other than physical. May be functional where circumstances internal to the property item render it less desirable; or economic where circumstances external to the item and beyond the control of the owner render the property item less desirable.

Original cost is the cost of a property item to the present owner. At times, it is used as equivalent to historical cost.

Real estate is land and all improvements on and to the land.

Real property includes the land itself and all buildings, structures, and improvements or other fixtures on it, and all rights and privileges belonging or appertaining to it, and all mines, minerals, quarries, fossils, and trees on or under it.

Risk is the degree of uncertainty regarding the receipt of future income, whether in the form of interest or of net operating income. The higher the risk, the greater the annual percentage rate of return demanded by investors. Interest on a government bond or on a bank deposit has high degree of certainty of receipt, and therefore offers a low rate of return compared to other investments. At the other extreme is the high-risk equity portion of a commercial enterprise with a high debt/equity ratio.

Straight-line depreciation is the accounting practice of equal annual increments of book depreciation expense also the assumed equal annual increments of loss in value in appraising where an allowance for depreciation is included in the capitalization rate.

Taxing district is any city, town, school district or special district that levies ad valorem property taxes.

Transmission lines carry large amounts of energy from generating plants to substations where voltages are reduced for distribution.

Unit method of valuation is the technique of valuing a group of property items as "one thing."

Sources: Appraisal Handbook, Western States Association of Tax Administrators, Committee on Centrally Assessed Property.

Appendix B
Estimated Property Tax Revenue Impact of Exempting
Electric Utility Attached Generation Machinery*
Pay 2000

	<u>(\$000)</u>
City	\$17,328
County	20,637
School	29,081
Township	166
Other	<u>2,022</u>
Total	\$69,234

*Includes electric generation machinery
and attached substation.

Note:

Revenue estimate is based on Pay 2000 net tax capacity
levies, market value, and property classification rates.
The "other" category includes net tax capacity levies for
special districts (\$980 m) plus market value referendum
levies (\$1,042 m).

Source: Minnesota Department of Revenue, September 11, 2000

Relative Fiscal Significance of Utility Machinery Levies

for Impacted County Governments

		Pay 2000		Pay 2000		Generatin g		Pay 1997 Expenditures (c)		Pay 2000		Prorated (e)
		Generating Machinery Levy (a)		Average County LTR		Mach. Levy		Current + Debt Service		Debt Levy (d)		Mach. Levy
	County	Amount	Percent of Total Levy	LTR	Indexed to State Avg (40.83%)	as a % of Revenue (b)		Per Capita	Indexed to State Avg (\$634)	Amount	Percent of Total Levy	To Cover Share of Debt
	Sherburne	5,084,555	28.50%	31.460%	0.77	12.11%		\$ 467	0.74	438,789	2.5%	\$ 125,060
	Goodhue	4,288,496	25.41%	40.996%	1.00	15.91%		505	0.80	3,366,344	19.9%	855,507
	Itasca	3,285,105	18.33%	52.259%	1.28	6.03%		959	1.51	1,150,564	6.4%	210,856
	Lincoln	324,477	12.29%	56.254%	1.38	4.37%		892	1.41	0	0.0%	-
	Wright	2,254,311	11.31%	32.055%	0.79	4.85%		443	0.70	1,718,565	8.6%	194,446
	Pipestone	250,262	7.31%	58.895%	1.44	2.60%		655	1.03	235,169	6.9%	17,200
	Chippewa	117,165	3.18%	47.956%	1.17	0.86%		857	1.35	0	0.0%	-
	Martin	123,532	2.19%	34.123%	0.84	0.84%		454	0.72	141,000	2.5%	3,082
	Blue Earth	333,320	2.16%	42.711%	1.05	0.78%		514	0.81	1,305,237	8.5%	28,214
	Otter Tail	264,860	2.07%	37.651%	0.92	0.68%		606	0.96	149,539	1.2%	3,098
	Carlton	223,701	2.05%	70.228%	1.72	0.69%		745	1.18	625,169	5.7%	12,837
	Benton	103,836	1.50%	60.389%	1.48	0.45%		467	0.74	809,482	11.7%	12,109
	Morrison	118,806	1.41%	62.567%	1.53	0.44%		747	1.18	1,048,684	12.4%	14,764
	Dakota	985,230	1.36%	27.165%	0.67	0.47%		463	0.73	966	0.0%	13
	Washington	553,752	1.30%	27.955%	0.68	0.47%		511	0.81	5,294,412	12.4%	68,656
	Pine	58,829	0.83%	56.723%	1.39	0.26%		723	1.14	529,142	7.5%	4,410
	St. Louis	436,396	0.70%	69.524%	1.70	0.24%		726	1.15	3,735,788	6.0%	26,271
	Scott	141,325	0.64%	36.347%	0.89	0.26%		495	0.78	2,596,560	11.7%	16,536
	Lake	22,543	0.56%	66.555%	1.63	0.10%		1,105	1.74	298,389	7.4%	1,660
	Carver	93,037	0.43%	45.775%	1.12	0.15%		581	0.92	1,166,967	5.4%	5,003
	Ramsey	525,179	0.41%	42.996%	1.05	0.13%		733	1.16	11,004,515	8.6%	45,221
	LeSueur	18,128	0.29%	44.250%	1.08	0.09%		642	1.01	259,642	4.2%	756
	Hennepin	1,008,758	0.27%	38.663%	0.95	0.10%		687	1.08	25,578,483	6.8%	68,370
	Rock	6,125	0.24%	39.443%	0.97	0.07%		604	0.95	0	0.0%	-
	Cass	10,836	0.11%	36.819%	0.90	0.03%		1,016	1.60	496,000		
	Beltrami	4,202	0.04%	71.903%	1.76	0.01%		729	1.15	338,203	3.2%	133
	Total	\$ 20,636,766	2.27%			0.81%		\$ 644	1.02	\$ 62,287,609	6.9%	\$ 1,714,203

(a) Based on generating market values from Property Tax Division and average local tax rates (LTR's) and total levies from the 2000 Abstract of Tax Lists.

(b) Revenues projected to 2000 based on Office of the State Auditor revenue data. Inflated based on annual average change from 1993-97 (min. annual rate of 2%; max of 10%).

(c) Based on Office of the State Auditor expenditure data and 1997 population.

(d) From the 2000 Abstract of Tax Lists ("-" indicates no debt levy).

(e) The generating machinery debt service levy is estimated by prorating the machinery levy according to the debt levy share of the total levy.

Relative Fiscal Significance of Utility Machinery Levies

for Impacted City Governments

	Pay 2000		Pay 2000		Generating	Pay 1998 Expenditures (c)		Pay 2000		Prorated (e)
	Generating Machinery Levy (a)		Average City LTR		Mach. Levy	Current + Debt Service		Debt Levy (d)		Mach. Levy
		Percent of		Indexed to State	as a % of	Per	Indexed to		Percent of	To Cover
CITY	Amount	Total Levy	LTR	Avg (29.49%)	Revenue (b)	Capita	State Avg (\$702)	Amount	Total Levy	Share of Debt
Becker	3,364,954	70.39%	21.266%	0.72	29.02%	\$ 3,288	4.68	2,609,309	54.6%	\$ 1,836,753
Cohasset (f)	3,182,717	64.44%	50.670%	1.72	104.02%	651	0.93	3,152,285	63.8%	2,031,487
Monticello	2,473,790	52.20%	35.692%	1.21	21.76%	782	1.11	1,394,097	29.4%	727,679
Hoyt Lakes	308,242	46.68%	51.986%	1.76	6.14%	974	1.39	112,807	17.1%	52,658
Red Wing	3,943,814	44.32%	37.701%	1.28	17.09%	943	1.34	422,925	4.8%	187,455
Oak Park Heights	459,304	33.53%	23.187%	0.79	10.19%	558	0.79	56,471	4.1%	18,937
Granite Falls	96,625	18.79%	39.549%	1.34	3.40%	721	1.03	226,925	44.1%	42,633
Watertown	61,808	18.22%	30.410%	1.03	3.67%	492	0.70	96,727	28.5%	17,626
Maple Lake	36,233	12.20%	35.628%	1.21	2.68%	618	0.88	63,903	21.5%	7,798
Fergus Falls	238,311	10.10%	34.667%	1.18	1.64%	740	1.05	253,162	10.7%	25,576
Scanlon	5,877	7.81%	20.205%	0.69	1.30%	326	0.46	0	0.0%	-
Burnsville	807,297	5.54%	29.075%	0.99	1.84%	628	0.89	2,763,127	19.0%	153,185
Inver Grove Heights	221,155	4.34%	26.011%	0.88	1.23%	525	0.75	0	0.0%	-
Mankato	262,046	3.95%	33.578%	1.14	0.95%	615	0.88	2,066,698	31.1%	81,575
Elk River	102,481	2.57%	30.248%	1.03	0.81%	521	0.74	384,888	9.6%	9,873
Shakopee	78,192	2.48%	20.110%	0.68	0.42%	629	0.90	0	0.0%	-
Thomson	1,239	2.10%	65.880%	2.23	1.75%	489	0.70	21,200	35.9%	445
Little Falls	20,687	1.51%	48.535%	1.65	0.25%	645	0.92	713,545	52.1%	10,780
Minneapolis	1,122,418	1.08%	43.718%	1.48	0.19%	1,247	1.78	19,406,449	18.6%	208,884
St. Paul	443,243	0.93%	36.288%	1.23	0.13%	1,125	1.60	15,011,269	31.4%	139,185
Pine City	3,346	0.85%	25.565%	0.87	0.19%	451	0.64	36,093	9.2%	307
Perham	3,328	0.64%	37.526%	1.27	0.10%	854	1.22	82,314	15.8%	524
St. Cloud	60,605	0.52%	35.247%	1.20	0.10%	708	1.01	988,250	8.5%	5,179
Cloquet	8,757	0.37%	39.230%	1.33	0.07%	680	0.97	492,338	20.9%	1,828
Duluth	9,081	0.10%	26.126%	0.89	0.01%	943	1.34	3,469,032	39.4%	3,581
Hopkins	2,966	0.07%	32.192%	1.09	0.02%	890	1.27	284,148	7.1%	210
Golden Valley	4,960	0.07%	30.803%	1.04	0.02%	800	1.14	2,116,526	29.9%	1,484
Eden Prairie	4,677	0.02%	28.544%	0.97	0.01%	614	0.87	1,512,830	7.0%	329
Total	\$ 17,328,153	6.37%	#		1.23%	\$ 998	1.42	\$ 57,737,318	21.2%	\$ 5,565,972

(a) Based on generating market values from Property Tax Division and average local tax rates (LTR's) and total levies from the 2000 Abstract of Tax Lists.

(b) Revenues projected to 2000 based on Office of the State Auditor revenue data. Inflated based on annual average change from 1994-98 (min. annual rate of 2.5%; max of 10%).

(c) Based on Office of the State Auditor expenditure data and 1998 population.

(d) From the 2000 Abstract of Tax Lists ("-" indicates no debt levy).

(e) The generating machinery debt service levy is estimated by prorating the machinery levy according to the debt levy share of the total levy.

(f) The City of Cohasset increased its levy by approximately 150% for Pay 2000, from approximately \$2 million to approximately \$5 million. This is a one-time levy bump to retire certain bonds.

The Pay 2001 will return to near previous levels. The generating machinery levy is greater than 100% of revenue because the revenue projection did not account for this bump.

Relative Fiscal Significance of Utility Machinery Levies for Impacted Township Governments								
		Pay 2000		Pay 2000		Generating	Pay 1997 Expenditures (c)	
		Generating Machinery Levy (a)					Current + Debt Service	
Township	County	Amount	Percent of Total Levy	LTR	Indexed to State Avg (12.73%)	as a % of Revenue (b)	Per Capita	Indexed to State Avg (\$151)
Drammen	Lincoln	8,251	63.51%	1.674%	0.13	6.91%	\$ 571	3.78
Aetna	Pipestone	9,928	56.36%	3.290%	0.26	15.31%	249	1.65
Manyaska	Martin	19,404	38.39%	5.360%	0.42	21.69%	156	1.03
Rock	Pipestone	7,774	34.90%	8.707%	0.68	15.18%	228	1.51
Bellevue	Morrison	21,196	21.63%	14.393%	1.13	13.38%	45	0.29
Lake Benton	Lincoln	6,066	13.86%	8.003%	0.63	9.79%	568	3.76
Fountain Prairie	Pipestone	2,920	13.53%	8.616%	0.68	4.29%	125	0.82
Pine	Pine	12,613	12.71%	13.918%	1.09	7.22%	98	0.65
Thomson	Carlton	52,922	12.44%	19.952%	1.57	4.86%	172	1.14
Montgomery	LeSueur	6,009	9.21%	14.668%	1.15	5.40%	114	0.76
Diamond Lake	Lincoln	664	4.50%	8.887%	0.70	0.98%	357	2.36
Fall Lake	Lake	4,234	4.15%	12.715%	1.00	3.02%	222	1.47
Sylvan	Cass	10,776	2.74%	36.614%	2.88	3.42%	116	0.77
Martin	Rock	1,858	2.50%	11.963%	0.94	1.21%	243	1.61
Buse	Ottertail	415	1.67%	6.954%	0.55	0.43%	100	0.67
Arbo	Itasca	243	1.20%	4.933%	0.39	0.15%	106	0.70
Frohn	Beltrami	1,016	1.13%	17.388%	1.37	0.64%	56	0.37
Verdi	Lincoln	66	0.35%	9.857%	0.77	0.10%	174	1.15
Friberg	Ottertail	103	0.35%	8.591%	0.67	0.10%	73	0.48
Unorg #2	Lake	26	0.04%	4.569%	0.36	NA	NA	NA
Total		\$ 166,484	9.84%			5.18%	\$ 145	0.96
(a) Based on generating market values from Property Tax Division and average local tax rates (LTR's) and total levies from the 2000 Abstract of Tax Lists.								
(b) Revenues projected to 2000 based on Office of the State Auditor revenue data. Inflated based on annual average change from 1993-97 (min. annual rate of 2%; max of 10%). Projections for Fountain Prairie and Verdi were based on 1992-97 due to missing 1993 data.								
(c) Based on Office of the State Auditor expenditure data and 1997 population.								
(d) Thomson was the only township reporting a debt service levy:								
* Pay 2000 = \$36,029								
* 8.5% of total levy								
* Prorated machinery levy to cover share of debt = \$4,483 (Estimated by prorating the machinery levy according to the debt levy share of the total levy.)								

Appendix C

Impact of Machinery Market Value on County Debt to Market Value Ratios[^]

County	C.Y. 1998 G.O. Debt ⁺	C.Y. 1998 Total Market Value ⁺	C.Y. 1998 Machinery Market Value [#]	Debt/MV with Machinery	Debt/MV without Machinery	Percent Change
Sherburne	8,170,000	3,037,319,317	474,047,900	0.27%	0.32%	18.52%
Goodhue	24,876,654	2,501,324,660	302,715,100	0.99%	1.13%	14.14%
Itasca	6,051,259	1,936,522,203	183,981,200	0.31%	0.35%	12.90%
Wright	33,470,000	3,891,995,309	205,138,000	0.86%	0.91%	5.81%
Dakota	43,380,000	17,043,434,595	103,977,600	0.25%	0.26%	4.00%
Carlton	6,615,123	981,809,093	9,159,000	0.67%	0.68%	1.49%
Morrison	11,520,000	1,072,064,564	5,363,300	1.07%	1.08%	0.93%
Lake	7,903,834	438,251,594	1,011,900	1.80%	1.81%	0.56%
Chippewa	0	695,008,179	7,182,100	n/a	n/a	0.00%
Pine	0	909,050,822	3,315,500	n/a	n/a	0.00%
Rock	0	568,995,133	464,700	n/a	n/a	0.00%
Beltrami	3,665,000	966,768,501	170,600	0.38%	0.38%	0.00%
Benton	9,210,000	1,109,206,463	5,042,200	0.83%	0.83%	0.00%
Blue Earth	5,070,000	2,429,230,372	22,506,300	0.21%	0.21%	0.00%
Carver	27,260,000	3,607,240,017	5,977,900	0.76%	0.76%	0.00%
Cass	550,000	1,772,788,770	840,700	0.03%	0.03%	0.00%
Hennepin	269,835,000	60,927,741,083	74,194,000	0.44%	0.44%	0.00%
Le Sueur	2,240,000	1,158,366,110	1,213,900	0.19%	0.19%	0.00%
Lincoln	1,343,000	336,613,825	1,228,700	0.40%	0.40%	0.00%
Martin	1,770,000	1,285,175,098	10,705,200	0.14%	0.14%	0.00%
Ottertail	2,415,000	2,501,595,237	20,359,700	0.10%	0.10%	0.00%
Ramsey	169,711,357	19,591,274,207	35,317,400	0.87%	0.87%	0.00%
Scott	10,560,000	4,031,697,868	11,405,400	0.26%	0.26%	0.00%
St.Louis	7,895,000	6,091,035,359	18,054,000	0.13%	0.13%	0.00%
Washington	39,855,000	9,930,646,110	58,393,800	0.40%	0.40%	0.00%

[^] This table is illustrative of a point in time, outstanding indebtedness is subject to large changes as local jurisdictions pay off bonds or issue new bonds.

^{*} Includes indebtedness for General Obligation (G.O.), G.O. Tax Increment, Special Assessment, and G.O. Revenue as reported to the Office of the State Auditor for calendar year 1998.

⁺ Department of Revenue, payable 1999 (1998 assessment year) total real and personal market values.

[#] Department of Revenue, payable 1999 (1998 assessment year) machinery market value.

Impact of Machinery Market Value on City Debt to Market Value Ratios[^]

City	C.Y. 1998 G.O. Debt ⁺	C.Y. 1998 Total Market Value ⁺	C.Y. 1998 Machinery Market Value [#]	Debt/MV with Machinery	Debt/MV without Machinery	Percent Change
Becker	44,070,000	726,519,413	464,464,400	6.07%	16.82%	177.10%
Cohasset	7,260,000	344,515,781	183,846,000	2.11%	4.52%	114.22%
Monticello	8,800,000	521,390,659	202,072,700	1.69%	2.76%	63.31%
Red Wing	5,550,000	1,028,736,578	302,715,100	0.54%	0.76%	40.74%
Hoyt Lake	290,000	60,309,570	17,047,500	0.48%	0.67%	39.58%
Oak Park Heights	3,780,000	271,176,169	58,393,800	1.39%	1.78%	28.06%
Granite Falls	8,396,833	83,850,629	7,182,100	10.01%	10.95%	9.39%
Watertown	4,900,000	78,846,915	5,977,900	6.21%	6.72%	8.21%
Maple Lake	3,155,000	50,209,454	3,065,300	6.28%	6.69%	6.53%
Fergus Falls	15,030,000	401,762,160	19,925,200	3.74%	3.94%	5.35%
Scarlton	770,000	27,310,162	838,000	2.82%	2.91%	3.19%
Burnsville	53,980,000	3,076,825,475	80,115,500	1.75%	1.80%	2.86%
Mankato	62,145,000	1,012,961,903	22,506,300	6.13%	6.27%	2.28%
Inver Grove Heights	47,797,646	1,253,580,145	23,862,100	3.81%	3.89%	2.10%
Thompson	90,000	4,401,821	54,400	2.04%	2.07%	1.47%
Elk River	20,815,000	713,609,819	9,583,500	2.92%	2.96%	1.37%
Shakopee	22,970,000	900,589,497	11,405,400	2.55%	2.58%	1.18%
Cloquet	5,050,000	362,474,088	648,300	1.39%	1.40%	0.72%
Little Falls	15,490,500	179,636,008	1,099,100	8.62%	8.68%	0.70%
Pine City	1,414,000	88,336,514	644,400	1.60%	1.61%	0.62%
Perham	3,528,300	72,622,896	258,900	4.86%	4.88%	0.41%
St. Paul	207,713,534	8,489,603,118	35,317,400	2.45%	2.46%	0.41%
Minneapolis	814,256,000	15,282,589,354	73,024,100	5.33%	5.35%	0.38%
St. Cloud	124,700,000	1,809,891,695	5,042,200	6.89%	6.91%	0.29%
Duluth	72,430,000	2,380,992,129	1,006,500	3.04%	3.04%	0.00%
Eden Prairie	45,180,027	4,239,678,401	426,200	1.07%	1.07%	0.00%
Golden Valley	38,330,000	1,477,612,958	473,000	2.59%	2.59%	0.00%
Hopkins	16,588,543	733,414,901	270,700	2.26%	2.26%	0.00%

[^] This table is illustrative of a point in time, outstanding indebtedness is subject to large changes as local jurisdictions pay off bonds or issue new bonds.

* Includes indebtedness for General Obligation (G.O.), G.O. Tax Increment, Special Assessment, and G.O. Revenue as reported to the Office of the State Auditor for calendar year 1998.

+ Department of Revenue, payable 1999 (1998 assessment year) total real and personal market values.

Department of Revenue, payable 1999 (1998 assessment year) machinery market value.