Minnesota



Energy Emergency Plan

2007

Minnesota Department of Commerce Energy and Telecommunications Division

State Energy Office

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Periodic Review and Check Off

Semi-Annual Review for updating contact information, law and rule changes and energy-related data.

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MINNESOTA ENERGY EMERGENCY CALL DOWN LIST

List last updated August 1, 2006

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INTRODUCTION

Statement of Purpose and Goals

The State of Minnesota maintains an energy supply emergency conservation and allocation plan, herein called the Minnesota Energy Emergency Plan. According to Minnesota Statues 2004, Chapter 216C.15, Subdivision 1, the statute reads in part:

The plan shall provide a variety of strategies and staged conservation measures to reduce energy use and in the event of an energy supply emergency, shall establish guidelines and criteria for allocation of fuels to priority users. The plan shall contain alternative conservation actions and allocations plans to reasonably meet various foreseeable shortage circumstances and allow a choice of appropriate responses.

The goal of the Minnesota Energy Emergency Plan is to enable the Minnesota Department of Commerce to meet the requirements of Chapter 216C and to provide all energy stakeholders within the state with information vital to understanding the background and causes of most energy shortages, the roles of fellow stakeholders, the relative vulnerability of various consumers of energy in relation to the supply of energy as well as options for mitigating the impact of any energy shortage in the state.

Summation of National and State Energy Patterns and Issues

Minnesota consumers purchase fuel and electricity within the context of regional, national and international energy markets. Prices of the state's primary energy sources are quoted in national commodity exchanges and respond to a variety of price signals from local weather patterns to demand within foreign countries. For example, the loss of natural gas production in the Gulf of Mexico would affect prices in Minnesota even though most of the state's gas is delivered from Canada. Oil availability and prices reflect local supply and demand as well as the increasing number of petroleum users in China, India and other emerging nations. Power generation is subject to the status of generation in neighboring states, the cost of fuel used to power area generators and the status of the transmission system through which power flows. Hence, Minnesota energy managers pay attention to what happens outside the state as well as what happens instate. Depending upon the size and duration of an energy shortage, local energy managers may find sufficient local resources to mitigate the impact; or they may seek out-of-state help if local resources are overwhelmed. This Plan outlines measures for dealing with a variety of incidents and provides guidance in understanding the risks involved in shortage or loss of the state's primary energy sources.

Petroleum accounts for approximately 38 percent of the state's energy use. Motor gasoline stands out among petroleum products. Distillate for heating oil provides less than half of the Btus furnished by motor gasoline and propane or just over one-tenth. Minnesota enjoys the in-state location of two petroleum refineries and another in Wisconsin. Furthermore, about 90 percent of the crude oil feeding those refineries comes from Canada. This proximity to product production has permitted a moderate reduction in petroleum market volatility within the state; that is, Minnesota consumers generally enjoy lower gasoline prices that motorists in other parts of the nation. Increasing petroleum prices do concern Minnesota consumers. In 2002, the Minnesota Attorney General issued a report stating that the increasing vertical integration of oil companies was a major factor

in high motor fuel prices. In 2005, following storm damage to Gulf Coast facilities, the state did enjoy some protection from price volatility due to the presence of area refineries.

Among the state's major sources of energy, electricity accounts for about 30 percent of the total energy consumed. Electricity is rapidly becoming a commodity like oil and gas. The growth of interstate electric transmission and regional trading has enhanced the ability to shop for power generated out of state. Today, Minnesota is part of the Midwest Independent Transmission System Operator (MISO), a fully integrated regional transmission organization. This is one of the most significant changes in Minnesota's energy profile. MISO dispatches power from Minnesota-based electric generators to state users and both exports and imports power into the state as economics dictate. The implications of working within a fully integrated regional power system are unfolding and may not be fully understood until Minnesota electric utilities and the regional transmission organization have operated together for several years.

Natural gas provides about 22 percent of the state's energy. Although about 60 percent of the state's natural gas comes from Canada (with the rest from Kansas, Oklahoma and Texas), Minnesota consumers have been somewhat affected by volatility in natural gas pricing. There is a pattern of accelerated growth in the residential use of natural gas as major local distribution companies open service in recreational areas that have become year round communities. The bulk of natural gas sold in Minnesota is provided by one major investor-owned company with a large national presence in interstate pipeline network.

Potential Growth of Energy Use

Minnesota had a 2004 population of 5.1 million people, ranking 21st among all states. According to the U.S. Department of Energy, Energy Information Administration (EIA), the state consumed approximately 1.7 quadrillion Btus of energy in 2001/2002. Minnesota expects its population and consequent energy demand to grow. Typically, energy providers plan for about one percent annual demand growth. Minnesota may exceed that projection in various consumption sectors as growth occurs; utilities serving the twin cities area ordinarily plan for 2 to 3 percent per year. For example, from 1965 to 2001, commercial energy consumption grew at about twice the rate of residential consumption. Efforts are underway to accommodate growth as can be seen in the proposal for two additional petroleum pipelines that would facilitate the expansion of in-state oil refineries. Of course, growth and consumption in Minnesota will also influence use in other states, hence another purpose of this Plan is to encourage interstate coordination as well as preparedness at home.

Outline of Plan Sections

This Plan is organized into five sections:

1. Legal Authority

This subsection includes relevant Minnesota state law, the Governor's Executive Order governing energy emergencies, federal requirements, primary state agency responsibility and other Minnesota laws that affect energy use.

2. Key Minnesota Stakeholders

- a. Energy emergency authority is examined in relation to Minnesota laws and rules.
- b. Minnesota government and energy sector response responsibilities are examined in relation to the primary energy sources used electricity, natural gas and petroleum.
- c. A general description of energy industry emergency response activity is discussed.

3. Challenges Assessment

- a. This subsection discusses the relative impact of shortage on a variety of energy consumers
- b. This subsection of the Plan is based on data contained in other Minnesota documents and EIA data showing how energy is used in the state.

4. Operational Plan

a. Problem Identification

This subsection sorts relative levels of emergency and how to identify them.

Response to an Energy Supply Shortage
 This subsection examines the potential measures that may be taken to mitigate shortage. Suggestions about managing public information are included.

5. Appendices

The appendices contain support material, helpful maps and copies of legal documents pertaining to energy use and energy emergencies.

I. LEGAL AUTHORITIES

Minnesota Statutes

Chapter 216C.15, **Energy supply emergency conservation and allocation plan,** is set forth in <u>Minnesota Statutes 2004</u>. Subdivision 1, Priorities and Requirements, directs the plan to establish guidelines and criteria for allocation of fuels to priority uses in the event of an energy supply emergency. The priorities set out in this section would be contained in a state Petroleum Set-Aside; or be used to guide petroleum product dealers if events required choosing one customer over another. The priorities are structured both to encourage conservation and to recognize health, welfare and safety needs. Subsection (3) authorizes the creation of "programs, controls, standards and priorities or quotas" for a variety of measures to mitigate the impact of an energy supply emergency.

Subdivision 2 requires periodic revision of the state energy emergency plan. Subdivision 3 governs the declaration of an Energy Supply Emergency and stipulates that the Executive Council (which includes the Governor) or the legislature "may declare an energy supply emergency when an acute shortage of energy exists." The statute designates the Commissioner of the Department of Commerce (DOC), in which the State Energy Office (SEO) is located, as the lead state agency for assisting the Division of Homeland Security and Emergency Management (HSEM), in developing and maintaining energy emergency plans. The law stipulates that no official state of energy emergency can last more than thirty days.

Chapter 216C.16 authorizes the Commissioner of the Department of Commerce to establish and manage a State Set-Aside for motor gasoline and middle distillates in order to relieve hardship.

Minnesota Energy Security and Reliability Act of 2001

This Act is known as MESRA and is found in Minnesota Laws 2001, Chapter 212. It covers essential energy infrastructure, distributed energy resources and other reliability and planning issues. It reformed the state's power plant siting statutes, addressed inadequacies in electric transmission and required utilities to increase spending on energy conservation programs. A detailed explanation of this Act and a discussion of its implications can be found in the 2004 Energy Policy and Conservation Report noted below.

Minnesota Rules

Detailed instructions for managing a petroleum supply emergency through various conservation and emergency measures are contained in Minnesota Rules, Chapter 7620. The "Purpose" section, 7620.0130, sets definitions, public and private sector organizational responsibilities, distribution priorities and appeals, and provides for public health and welfare. Subsequent sections define stages of discerning an emergency, and define the roles of the Division of Emergency Management and the Commissioner of the Department of Commerce in managing a problem. Essential for the development of this Plan, Minn. Rules 7620.0400, Subpart 2 lists priorities for allocating fuel oil during a severe shortage.

Following sections elaborate on additional allocation priorities and Minn. Rules 7620.0410 designates allocation categories for motor fuel. Subsequent sections lay out a variety of voluntary and mandatory measures that may be taken to mitigate a shortage. These measures are detailed in the Plan under Section IV, Operational Plan.

The Minnesota State Petroleum Set-Aside is described in Minnesota Rules, Chapter 7615. This chapter, like the one for conservation and emergency measures, extensively details the components and management of a Set-Aside. These rules are examined in Section IV of this Plan.

Executive Order 04-04

The responsibilities of state agencies are set out in Executive Order 04-04 issued by Governor Tim Pawlenty on March 29, 2004. This order gives the Division of Homeland Security and Emergency Management "overall responsibility for coordinating the development and maintenance of the all-hazard Minnesota Emergency Operation Plan." The Department of Commerce provides guidance and assistance on energy matters within this operational plan in accordance with state law.

The Executive Order also requires each state department and agency included within the order to designate a member of its staff as an emergency preparedness coordinator. This person will be the unit's principal point of contact during any emergency and may be asked to work at the Emergency Operation Center when the Center is activated.

Energy Policy and Conservation Report

Minnesota Statutes 216C.18 requires the Department of Commerce to issue a comprehensive report identifying major emerging trends and issues in energy supply, consumption, conservation and costs. "The 2004 Energy Policy and Conservation Report," also known as the "2004 Quad Report," contains an extensive explanation of the Minnesota Energy Security and Reliability Act of 2001. While the report does not directly address energy emergency activities, it provides significant guidance about data gathering and ongoing energy conservation work undertaken by the SEO and the other sections of the Energy Division in the Department, as well as extensive coverage of Minnesota requirements for renewable energy, distributed energy and the use of renewable resources. Such activities underpin energy emergency preparedness by lowering the risk of any shortage. Energy conservation measures taken in advance of any emergency help the state manage its fuel more efficiently and hence are a first line of defense. State energy use profiled in this document provides a benchmark for estimating the severity of any shortage and helps officials identify those energy users who may be most harmed in any particular emergency.

The Energy Policy and Conservation Report includes detailed analyses of energy supply and demand in Minnesota. Extensive federal and state data resources are used to illustrate past use and suggest future consumption patterns. The Report should be used in conjunction with this Plan when examining vulnerability and risk associated with energy shortages.

Biodiesel Mandate Law

Minnesota Statutes, section 239.77 require that all diesel fuel offered for sale or sold in Minnesota contain at least two percent biodiesel fuel by volume. The mandate became effective on June 25, 2005. The first in-state biodiesel plant began production in January 2005 and others were slated to begin shortly thereafter. The law contains exceptions for electric motors and nuclear generating plants, railroad locomotives, copper and taconite mining and off-road equipment. In the event that the Nuclear Regulatory Commission (NRC) approves the use of biodiesel within nuclear power plants, the mandate would apply to such plants.

Ethanol Laws

In May 2005, the Governor of Minnesota signed amendments to the Minnesota Statues 2004, §239.791, Subdivision 1, to increase the amount of ethanol used in motor gasoline from 10 to 20 percent. The original mandate dates from 1997 and the new one becomes fully effective in 2013. If ethanol blends have increased voluntarily by 20 percent by 2010, the new mandate will not take effect.

Electric Power Reliability

Minnesota Statutes 2001, Chapter 212 (codified in scattered sections of Minnesota Statutes, Chapter 216B); Minn. Stat. §216B.81, requires the Minnesota Public Utilities Commission (PUC) to adopt safety, reliability, and service quality standards for those electric distribution utilities that are not electric cooperatives or municipal utilities (i.e., for investor-owned utilities). The statute requires cooperative and municipal utilities to adopt their own standards subsequently, which are to be as consistent as possible with the Commission's standards. The PUC adopted rules based on these laws that became effective January 28, 2003.

Federal Law

State Energy Efficiency Programs Improvement Act 1990, P.L. 101-440, requires states to submit an energy preparedness plan to U.S. Department of Energy (DOE). Numerous additional federal acts may affect states. These include the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S. Code 5121, *et seq,*) plus rules and regulations supporting it. Foremost among these is the Federal Response Plan (FRP) that established federal support functions for various functional areas of emergency response

A through listing of federal acts and authorizations (such as the National Response Plan and the National Incident Management System) can be found in the State Energy Assurance Guidelines developed by NASEO. See www.naseo.org.

II. MINNESOTA ENERGY EMERGENCY STAKEHOLDERS

State Government Stakeholders

The Governor's Executive Order 04-04 serves as the Minnesota equivalent of a state ESF-12¹. The Minnesota Department of Public Safety, Division of Homeland Security and Emergency Management (HSEM) is the lead agency for managing the state's "all-hazards" Emergency Operations Plan. Under this leadership, the Minnesota DOC has primary responsibility within the state emergency plan for energy-related planning. This includes support for electricity and natural gas shortage issues, weatherization assistance (WAP) and low income energy assistance (LIHEAP), weights and measures, conservation, and some all-hazards participation. Petroleum shortages are not listed specifically but are implied within sections 408 and 410. Table 1 lists the energy emergency duties of the DOC as listed in Governor's Executive Order. In addition, DOC is the state's representative on the national Energy Emergency Assurance Coordinator (EEAC) list-serve.

Table 1

	Executive Order, Item IV – Department of Commerce					
Section	Duties Pertaining to Energy Emergency Management and Mitigation					
402	Coordinate with other state agencies on electric and gas utility restoration					
403	Identify resources for vulnerable consumers through LIHEAP.					
404	Identify resources for vulnerable consumers through WAP					
406	Develop and disseminate assistance program and insurance fact sheets.					
408	Develop and coordinate with suppliers, energy resource conservation and					
	management procedures.					
409	Coordinate and implement, with HSEM, energy emergency procedures.					
410	Develop public information releases.					
411	Provide personnel for preliminary damage assessment.					
412	Provide personnel for an Interagency Hazard Mitigation Team/Hazard Mitigation					
	Survey Team as requested.					
413	Provide a representative to the "Minnesota Recovers Disaster Task Force," as					
	requested, for project evaluation.					
Source: Exe	ecutive Order 04-04, March 29, 2004					

Two additional agencies, the **Department of Revenue**, and the **Department of Public Safety, State Fire Marshal/Office of Pipeline Safety** are assigned duties that parallel and support the broad resource and conservation management procedures assigned to DOC.

1. Section 1803 states that the Department of Revenue shall assist HSEM and DOC in the implementation of an energy plan that provides for the allocation and conservation of energy resources and provides staff for the state and regional emergency operations centers.

¹ The federal National Response Plan incorporates Emergency Support Functions (ESF) for numerous emergency response sectors. ESF-12 is designated for energy and many state emergency plans follow this identification system.

- 2. Section 1734 states that the State Fire Marshal/Office of Pipeline Safety, shall act as liaison with pipeline companies and other utilities ...and provide post-incident enforcement, investigation and damage prevention education.
- 3. Section 1735 states that the agency, act as contact with the US Department of Transportation (DOT), Research and Special Programs Administration, Office of Pipeline Safety and Emergency Management for security pipeline-related issues.

Other state agencies (not including HSEM) have responsibilities that can be extremely important during an energy emergency. Foremost among these, the **Minnesota Pollution Control Agency** has responsibility for providing waivers from environmental controls, and the **Minnesota Department of Transportation** has responsibility pertaining to temporary waivers from motor carrier safety regulations such as weight restrictions and driver hours. The former can help oil and gasoline dealers supply alternate petroleum resources while the latter permits larger loads of critical fuel to move into the state and petroleum product drivers to extend their hours of service in order to meet extraordinary demand during a shortage.

Table 2 lists agency duties that are not specifically aimed at an energy emergency but are sufficiently broad to intersect them or to be of special value in mitigating them.

Table 2

Other Potential State Government Stakeholders							
Item/ Section No.	Duties Pertaining to Energy Emergency Management and Mitigation During Emergencies NOTE: Energy Emergency Assistance Is Implied	Potential Energy Emergency Support					
	Item I. Department of Administratio	n					
100	Coordinate planning and recovery of statewide systems	Statewide electric, gas and oil systems					
104	Furnish computer services for operations and resource management	Self-explanatory					
107	Support locating alternate sites for downed systems	Assist with command and control systems if down					
108	Provide travel support for state agencies	Support DOC emergency travel					
111	Land Management Center to use geographic information systems (GIS) to assist planners and responders	Planning and energy outage location tool					
	Item III. Attorney General						
300	Legal advice/opinions in support of special regulations	Enforce mandatory conservation measures.					
301	Provide representation at public meetings and provide consumer information	Suspend antitrust risk if companies meet with state officials. Inform to prevent price gouging					
	Item IX. Department of Finance						
901	Coordinate with other agencies re: state match costs for presidential disaster declaration	Resource and infrastructure recovery					
902	Assist with financial deficiencies following large-scale emergency	Financial back-up in widespread infrastructure emergency					
	Item XI. Minnesota Housing Finance Ag	gency					
1000	Administer home improvement grants and loans to low and moderate income homeowners	Mitigate high energy costs for disadvantaged users through preseason energy efficiency					

		improvements
1101	Inventory rental property suitable for temporary and long-term	Shelter for people dislocated by
	housing	short- or long-term energy outage
	Item XII. Department of Human Servi	
1210	Manage evacuee receptions centers	Shelter for persons displaced
		from homes due to lack of heat
	Item XV. Department of Natural Resou	
1501	Provide technical assistance, personnel and equipment for	Abet access for electric or natural
	debris removal from state-owned lands	gas repair crews in and around
		state lands
1503	Provide aircraft for post-disaster inspection	Assist energy sector in locating
4500		damaged infrastructure
1508	Locate alternate water supply and equipment for restoring	Help secure electrical generation
	public works	cooling as needed. Help restore infrastructure for energy supply.
1520	Enforcement Division: Assist with evaluation, in-place shelter,	Assist with mass movement, road
1320	traffic control, altering public, law enforcement	control for evacuation, and issues
	traine control, altering public, law emorcement	with mandatory conservation
		measures
1521	Enforcement Division: Assist with disaster communications.	Self-explanatory
1543	Waters Division: Provide climatological reports	Help forecast weather trends
		threatening energy supply
	Item XVII. Department of Public Safe	
1720	Office of Communications: Support emergency public	Train with HSEM. Provide public
	information	announcements as needed
1730	State Fire Marshal/Office of Pipeline Safety: Firefighting and	Could assist in the event of
	rescue	refinery or generator plan
		disasters
1733	State Fire Marshal/Office of Pipeline Safety: Fire safety	Disaster prevention also protects
	inspections	critical energy infrastructure
1750-	<u>Division of Homeland Security and Emergency Management</u>	DOC coordinates with and works
1773	The centrality of HSEM is noted above	within the state emergency
		management structure lead by
1780	State Detrol Divinion, Deepenable for treffic central on all	HSEM
1780	State Patrol Division: Responsible for traffic control on all interstate and state trunk highways during an emergency	Can help in moving fuel, convoying repair vehicles and
	interstate and state trunk highways during an emergency	enforcing some mandatory
		conservation measures
1787	State Patrol Division: Provide aerial photography for	May be useful for assessing
	assessment	damage to energy infrastructure
	Item XX. Department of Transportati	
2001	Responsible for debris removal and other activities related to	Can be critical in helping electric
2003	interstate and state trunk highways	and natural gas repair crews
2005	i.	reach damaged infrastructure and
		helping petroleum products move
		to market
2009	Provide emergency engineering services.	Services can benefit per above
2010	Issue highway use waivers	Allow higher volume of relief fuel
2012		and extend fuel driver service
		hours
2013	Coordinate rail, bus and waterway transport providers	Work with rail may hasten some
0015		petroleum product delivery
2016	Maintain radio communications systems	Preventative measures help as
		all- hazards protection.
		Protecting critical infrastructure

Primary Federal Stakeholders

The Department of Energy has responsibility under the FRP as point for emergency support function 12 (ESF12). Hence, it coordinates with the U.S. Department of Homeland Security about critical infrastructure issues. Within DOE, the Office of Electricity Delivery and Energy Reliability (OE) meets requests for assistance from states seeking help with federal regulations (such as Jones Act restrictions on foreign flag carriers) and coordinating interstate assistance, as conditions require. OE also hosts and maintains the Infrastructure Security and Energy Restoration web conference net for use by designated state energy emergency coordinators and other authorized emergency personnel. Access is limited to state, federal and other DOE-approved users by password. This system permits state energy emergency personnel to obtain up-to-date information on both routine and emergency matters, and to communicate over a secure network.

The primary responsibilities of the DOE during an energy emergency may include the following:

- Federal focal point for issues and policy decisions relating to energy in all response and recovery efforts;
- Monitoring energy system damage and repair work;
- Supporting the Energy Emergency Assurance Coordinators' list serve network through the Department's ISERNet communications system.
- Collecting, assessing, and providing information on energy supply, demand and prices;
- Identifying supporting resources needed to repair or restore energy systems;
- Deploying response teams as needed to affected area(s) to assist in response and recovery efforts; and,
- Reviewing and sponsoring, for the National Communications Systems, the energy industry's request(s) for Telecommunications Service Priority (TSP) assignments to provide necessary services.

Local Government

Counties

Municipalities

The <u>Handbook for Minnesota Municipalities</u> cites Minnesota Statutes § 41.321, 331, 341, 453, 453.51-62, 453A.01-12 that authorize municipalities to own and operate facilities for supplying utility service including gas, heat, light, power, sewer and water. The statute includes rules of approval and operation. Minnesota Statues 116C.576 also authorizes cities and towns to permit small electric power projects within their jurisdictional limits. Additionally, Minnesota cities are required to maintain a local emergency management organization (§12.25). The Handbook also refers to the role HSEM plays in assisting local units of government.

Minnesota electric and gas utilities are examined below, under Energy Providers.

Energy Providers

Electricity

The "State Energy Assurance Guidelines, Version 2 (2005)" produced by the National Association of State Energy Officials (NASEO) for the U.S. Department of Energy (U.S. DOE) Office of Electricity Delivery and Energy Reliability (OE), states that:

Energy emergencies involving the electric power system place special burdens on both the electric utility and the state to implement appropriate and effective control measures. The electric power system is subject to numerous technical constraints restricting what can or cannot be done to prevent power outages. The system also contains many automatic control devices that respond almost instantaneously to perturbations in supply, demand, and other system conditions.

All Minnesota electric utilities - Investor-Owned Utilities (IOUs), Rural Electric Cooperatives and Municipal Utilities –belong to or are affected by MISO, the Regional Transmission Operator (RTO), of which Minnesota is a member. The advent of MISO has created an electric transmission system interface through its central role in assuring the reliability of power. This includes scheduling and delivery of electricity or the transmission of bulk power. MISO, although in its infancy, has already become a significant player in managing electric power and mitigating disruptions within the system.

MISO cooperates with other electric grid operators in order to meet peak seasonal demand for electric power. The Eastern Interconnection Agreement includes New York Independent System Operator (NYISO), ISO New England, Pennsylvania, New Jersey and Maryland (PJM) and the Southwest Power Pool (SPP). These ISOs have agreed to share information and facilitate inter-ISO power transfer in order to assure reliability among their systems. A primary purpose of their agreement is to manage transmission efficiently, plan for controlling specific system effects on adjoining systems and enhance ISO ability to export or import power.

MISO, in turn, works within standards set by the North American Reliability Council (NERC). NERC intends to be become certified (on or about August 2006) as the National Electric Reliability Organization (ERO) approved in the Energy Policy Act of 2005. MISO operates largely within the territory of the Mid-West Reliability Organization (one of the eight regional reliability councils that form NERC). NERC maintains a Compliance Enforcement Program as well as an audit program to assure the reliability of the nation's bulk electric system. The organization is especially concerned with critical infrastructure protection and has been designated by DOE as the electric sector coordinator for this activity.

Minnesota law² requires utilities operating in the state to maintain reliability and to report on incidents of outage to the PUC. Rules adopted in 2003 require each operator to

- Design protocols for, and report on, operation reliability for each work center,
- Report bulk power failures,
- Send a copy of service interruption reports to the PUC, and
- Report major service interruptions noting location, number of customers affected, estimated duration of outage and estimated time of completed restoration.

Utilities are also required to maintain standards for

- SAIDI "System average interruption duration index," or "SAIDI," means the average customer-minutes of interruption per customer.
- SAIFI "System average interruption frequency index," or SAIFI, means the average number of interruptions per customer per year.
- CAIDI "Customer average interruption duration index," or CAIDI, means the average customer-minutes of interruption per customer interruption.

The law also requires owners of electric cooperatives and municipalities operating their own utilities to create similar standards and report in order to ensure system reliability throughout the state.

Managing Electricity Problems

The electric utility industry can be said to manage electricity delivery problems in four phases. First, there is on-going preparation and training based on local utility commission rules and electric power company experience. Second, there are a number of generic measures that electric utilities take depending on the nature of the problem. Third, there is restoration following damage to infrastructure. Finally, there is post-event feedback and analysis to improve future performance. The following tables and narrative, derived from the NASEO State Energy Assurance Guidelines, outline the four phases of emergency management for utilities. Table 3 illustrates Phase 1 as applied to Minnesota.

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² See Section II, Legal Authorities. Additional information on the role of the Minnesota Energy Security and Reliability Act may be found in the "Energy Policy and Conservation Report -Draft," also known as the 2004 Quad Report, revised by DOC, December 2004.

Table 3

Phase 1 - Five General Steps Utilities Take to Limit and Mitigate Power Loss

1. Assure System Reliability

- Constantly monitor demand, supply and systems, utility by utility.
- Maintain system integrity through upkeep, modernization, vegetation control, information system architecture and trained personnel.

2. Join and Maintain Mutual Aid Agreements

- Join with other utilities to abet restoration and repair.
- Maintain contracts with qualified outside repair contractors.
- Vet and update restoration priorities and practices and train personnel.

3. Cooperate with State Stakeholders: HSEM, DOC, PUC and others

- Work with PUC, DOC, PCA and HSEM to address Minnesota law and regulations regarding system integrity including generation, transmission & distribution.
- Train with HSEM and DOC.
- Utilize formal communications protocols to keep state regulatory agencies abreast of any emergency actions contemplated or taken.

4. Collaborate with MISO

- Regulated utilities maintain close working relationship with MISO.
- Plan and monitor power purchase and transmission protocols for a variety of operations to assure the integrity of the system and mitigate/end power loss.

5. Inform the Public

- Provide up-to-date, accurate information to the consuming public.
- Collaborate with HSEM in providing public service announcements during outages.
- Help the public understand the priorities and limitations of system restoration.
- Publicize and maintain support for vegetation control.

Source: Derived from "State Energy Assurance Guidelines," Version 2, November 2005

Table 4 illustrates Phase 2 as applied to Minnesota

Table 4

Phase 2 - Seven Responses MISO (and Utilities in Coordination with MISO) May Employ to Limit General or Specific Power Loss s

1. Communications and Coordination Through MISO

When MISO identifies a power situation that could limit or prevent the ability to operate the system safely and reliably under normal protocols, it will declare a system emergency. A system emergency announcement is typically preceded by a system alert and a system warning and may be presented in stages.

2. Discontinue Outside Sales of Power/Increase Power Output

- MISO may also direct that sales from outside the control area be curtailed in order to meet local-market requirements.
- Contract arrangements by market participants must reflect the ability to use this procedure.
- MISO may also solicit power from outside its control area in order to relieve emergency conditions.

3. Modify Operation of Generating Units for Emergency Relief

- MISO may bypass normal markets and purchase energy or ancillary services to correct the situation via "out of market" transactions.
- When operating reserves drop below minimum reliability levels, MISO may first alert market participants, post notice on its web site and then take various actions to contain and correct the situation.
- MISO may convert non-spinning reserves to spinning reserves.
- Some generating units are typically dedicated to provide black start capability should system-wide restoration be necessary.

4. Request Selected Customers To Reduce Load

 MISO may deploy demand side response resources where customers are compensated to reduce their demand.

 Some of these programs can provide emergency response in as little as thirty minutes to help maintain the reliability of the bulk power system during a capacity deficiency.

5. Request All Customers To Voluntarily Reduce Load

 MISO, through its members and/or in collaboration with HSEM, DOC and the PUC, can develop media communications to request voluntary load reduction from all customers.

6. Reduce Voltage

- MISO, directly or through its members, can reduce operational voltage, usually by less than
 5 to 6 percent, in order to mitigate system contingencies.
- At this level, most customers will not notice a change; however, public notification should accompany such action as certain electrical equipment may be adversely affected.

7. Implement Controlled Rotating Interruptions

- This is the last step MISO is likely to take in order to control a system emergency.
- Also called "rolling blackouts," this technique involves the interruption of portions of the grid for a period of time, usually for two hours or less. As one section is restored, another is taken off-line.
- Customers interrupted in this manner generally do not receive compensation.
- Public notification may be provided where practical, especially to protect operations sensitive to such interruptions.

Source: Derived from "State Energy Assurance Guidelines," Version 2, November 2005

Phase 3 is restoration. Minnesota Power provides an excellent diagram on its web site (See Figure 1) illustrating the steps of local electric power distribution. Normal restoration follows the same path from generation to step-up and step-down substations and then to various distribution and feeder lines that serve customers. This "normal" path of restoration creates the classic public relations problem that occurs when an agitated consumer complains, "The lights are on across the street but mine are still out." This happens because distribution and feeder lines may supply different sets of consumers even though they live close to one another. Most electric companies try to restore power according to the "rule of the most." That is, the lines that serve the most customers are restored first. This rule can be bent to return power to critical-need facilities and essential services. Examples would be hospitals, emergency service providers, communications, water pumping and sewage treatment.

Phase 4 is not illustrated. Post-event analysis and feedback takes place within many power energy companies as well as others involved in protecting the public and mitigating the effect of shortage. Energy providers and emergency responders agree that this is an essential part of on-going emergency preparedness and training.

Utilities may also take specific measures to limit power loss, work around localized outages or otherwise mitigate the adverse impact of specific loss to the delivery of electric power. Illustrative for specific losses steps are listed in Table 5.

Table 5

Detailed Initial Actions Utilities Generally Take for Specific Power Losses

- 1. Close "trip" breakers on compromised transmission lines
- 2. Redirect power to other transmission lines where possible
- 3. Notify generators to "power down" plants
- 4. Institute "limited outages" (e.g. rolling black outs, voltage reduction, brown outs) to retain power flows to large areas.
- 5. Contact specifically, all customers dependent upon electric equipment to maintain life or who face specific safety issues.

Loss of electricity is often thought of in terms of weather, excessive power consumption, or even intended damage. However, utilities may also face to unique issues related to the use of nuclear power and the transmission of electricity. Tables 6 and 7 outline these issues.

Table 6

Nuclear Power Electric Issues

- 1. Increasing demand not contributing to emissions
- 2. Aging nuclear generation facilities
- 3. Uncertainty concerning the long-term disposal of spent nuclear fuel
- 4. The emerging issue of reprocessing spent nuclear fuel in the United States
 - This is an ongoing practice in European nuclear facilities
- 5. Vigilance and infrastructure protection to guard against the theft or misuse of fissile fuel
- 6. Potential danger to surrounding community
 - Loss of cooling water for nuclear plants could result in the release of radioactive material to the air.
 - Radioactive plumes emanating from a nuclear plant for any reason
 - Essentially permanent soil contamination in the event of catastrophic loss of active or spent fuel

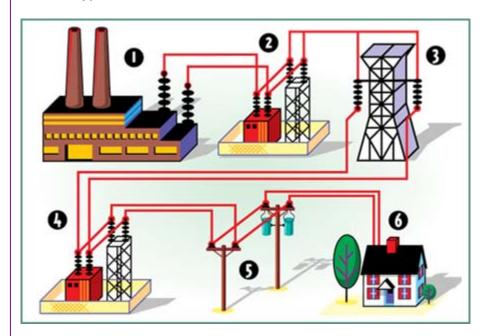
Table 7

Electric Transmission Issues

- 1. Increasing demand for electricity places added burdens on existing transmission.
 - Adding transmission capacity is a time consuming, capital intensive, process.
 - Inadequate transmission due to increasing demand can limit the amount of electric power available to a growing area thus threatening power reduction efforts such as rotating blackouts.
 - Inadequate transmission will also be reflected in higher electric rates.
- 2. Aging transmission infrastructure adds the demand "crunch."
 - Inadequate transmission capacity due to aging facilities can cause utilities to fall behind projected supply planning and thus limit their ability to provide adequate service as demand increases..
- 3. The location of transmission infrastructure needed to transmit power from new generation sources to growing demand centers.
 - It is more efficient to have high voltage transmission lines near growing demand centers than to supply such areas solely with lower voltage distribution and feeder lines.
- 4. NIMBY (not in my back yard) attitudes by the public may hinder the development of new transmission capacity.
 - This relates to the comment in Number 1, above concerning "time consuming" process.
- 5. Evolving federal regulations in tandem with market conditions pertaining to the ownership and operation of interconnected transmission grid/
 - This problem is local, regional and national (especially in the Eastern part of the United States.

Figure 1 – How Electricity Flows to Consumers

How Electric Power Reaches the Customer And the Typical Path of Restoration.



When electricity leaves a power plant (1), its voltage is increased at a "step-up" substation (2). Next, the energy travels along a transmission line to the area where the power is needed (3). Once there, the voltage is decreased or "stepped-down," at another substation (4), and a distribution power line (5) carries the electricity until it reaches a home or business (6). NOTE: Industrial and various commercial customers may receive power for large distribution lines between (2) and (4) and may also be restored more quickly than residential neighborhoods or small commercial area.

Source: MINNESOTA POWER http://www.mnpower.com/about_electricity/

Electric Utility Stakeholders

As noted, there are three types of electric utilities operating in Minnesota: IOU, Rural Cooperatives and Municipal Utilities. The IOUs furnish the vast bulk of kilowatt hours (kWh) in the state, followed in turn by the cooperatives and the municipal systems.

Investor-Owned Utilities

The IOUs are governed by state law and rules promulgated by the PUC. They sell power directly to consumers as well as to cooperatives and municipal systems. MISO can dispatch the power they generate to other users within the ISO's region. All but one of the state's IOUs are interstate companies and subject to more than one set of state regulations. Table 8 lists the IOUs operating in Minnesota.

IOUs generally respond to outages through their own crews or contractors unless the scope of the problem exceeds their capability. Typically, a company uses its local crews and contractors for minor outages. Following that, company crews may be brought in from unaffected areas within that company's service territory. Widespread outages may trigger mutual aid agreements with other utilities and any major outage would be coordinated with MISO.

Electric utilities try to repair outages from the last standing secure position first. If an entire system goes down, then it would be re-started using "black start" equipment (i.e., capable of starting independently without external assistance). Because the primary method for restoration is to repair the lines that serve the most people first, urban lines are likely to be restored before suburban and rural lines where the customer-per-line-mile density is lower. Critical facilities may be restored early, especially where they do not have sufficient alternate power for the duration of the outage. The larger electric companies manage most outage repair through local control areas using their crews and contractors as described above. MISO, as a power transmission and independent system operator, does not send crews and trucks to restore infrastructure.

Large IOUs typically have sophisticated monitoring and control centers through which an outage is handled. For example, Xcel Energy's Minneapolis Control Center serves Minnesota as well as Wisconsin, North and South Dakota, Upper Michigan and parts of Colorado. Large IOUs also conduct regular local and regional drills for such incidents as loss of power and restoration. In Minnesota, state government stakeholders do not participate in drills held by Xcel, but Minnesota Power in Duluth continues to work with a Regional Response Group that meets monthly.

IOUs report to MISO, the North American Electric Reliability Council (NERC), the Federal Energy Regulatory Commission (FERC) and the Minnesota PUC.

Table 8

Company		Contact Information	Total kWh Generated for Sale
Alliant Energy	Phone:	800-255-4268, 319-582-5421	16,485,454
	web:	www.alliantenergy.com	
	Address:	4902 North Biltmore Lane	
		P.O. Box 77007	
		Madison, WI 53707-1007 and	
		1000 Main St., P.O. Box 769	
		Dubuque, IA 52004-0769	
	l Di		11.050.001
Minnesota Power	Phone:	800-228-4966, 218-722-2641	11,650,681
	web:	www.mnpower.com	
	Address:	30 West Superior Street	
		Duluth, Minnesota 55802	
	1	T	
Northwestern Wisconsin	Phone:	715-463-5371	
	web:	www.nweco.com	No power generated in MN. Sell to "a small number" of customer in Pine County, MN.
	Address:	104 South Pine St., P.O. Box 9, Grantsburg, WI 54840	
Otton Toll Down	Phone:	040 700 0000	74 004 440
Otter Tail Power		218-739-8200	71,894,116
	web:	www.otpco.com	
	Address:	215 South Cascade St.	
		Fergus, Falls MN 56537-0496	

Xcel Energy	Phone:	800-895-1999,800-895-4999,	1,803,105,357			
		612-330-5500				
	web:	www.xcelenergy.com				
	Address:	414 Nicollet Mall, 6th Floor Minneapolis, MN 55401				
Source:2004 Electric Utility Qualifying Facilities Report, Minnesota Department of Commerce						

Rural Electric Cooperatives

There are 44 electric distribution cooperatives in Minnesota. All are represented by the Minnesota Rural Electric Association (MREA), an affiliate of the nationwide alliance, Touchstone Energy. Forty of the Minnesota cooperatives belong to Touchstone. Over one-half of them are served by the second largest wholesale power supplier in Minnesota – Great River Power of Elk River, Minnesota.

The 2004 "Electric Utility Qualifying Report" showed that 29 Minnesota cooperatives generate 2,680,884 kWh. The remaining 15 purchase power and distribute it. Together, all of the state's co-ops sell much more power than they generate with annual sales at approximately 12.1 billion kWh per year (about 19 percent of the state total). According to MREA, Minnesota cooperatives serve about 1.5 million people through 677,000 customer meters. The median size of a state cooperative is 6100 members ranging in size from 2000 to 108,000. Most important, from an energy management perspective, cooperatives have a very low density of customers per line mile (5.7/line mile) compared to IOUs (38/line mile) and municipally-owned utilities (48/line mile) whose customers live primarily in metropolitan areas. The cooperatives have the largest distribution network within the state with over 118,000 miles of distribution lines.³

As Minnesota's integration within MISO increases, the relationship of the co-ops and MISO grows also. A power supplier like Great River dispatches and acquires power in and outside of MISO and meets the NERC 15 percent planned reserve standard. Loss of power within the co-op system is reported to NERC and to MISO for operational issues. If an outage affects transmission, companies like Great River are more inclined to report

Minnesota Rural Electric Association

Telephone: 763.424.1020 **Facsimile**: 763.424.5820 **Web:** www.mrea.org

Address: 11640 73rd Avenue North

Maple Grove, MN 55369

Figure 2

than if there is a localized glitch in generation. Any wide area outage reporting and activity, however, would be coordinated in cooperation with MISO. Cooperatives manage their own co-op to co-op mutual aid agreements.

The MREA provides a variety of energy

reliability services to its members including loss control training and safety demonstrations.

Co-op members are categorized as Distribution Cooperatives or Generation and Transmission Cooperatives⁴. Table 9 lists the latter: Distribution cooperatives are listed in

³ "MREA http://www.mrea.org/ourmembers/electric_co-op_facts.htm

⁴ Distribution Cooperatives purchase wholesale power (usually from a Generation and Transmission Cooperative) and deliver it to member-owners.

Appendix IV. Minnesota Electric Cooperatives cover 85 percent of the area within the state.

Table 9

Electric Generation and Transmission Cooperatives						
Electric Cooperative	Phone Number	Address	Fax Number			
Basin Electric Power Association www.basinelectric.com	701/223-0441	1717 East Interstate Ave Bismarck ND 58501	701/224-5336			
Dairyland Power Cooperative www.dairynet.com	608/788-4000	PO Box 817 LaCrosse WI 54602-0817	608/787-1420			
East River Electric Power Co-op www.eastriver.coop	605/256-4536	PO Drawer E Madison SD 57042	605/256-8058			
Great River Energy www.greatriverenergy.com	1/63/441_3101	PO Box 800 Elk River MN 55330-0800	763/241-2366			
L&O Power Co-op www.landopowercoop.com		1302 S Union Street PO Box 511 Rock Rapids IA 51246	712/472-2710			
Minnkota Power Co-op www.minnkota.com	1/01//QL //OO	PO Box 13200 Grand Forks ND 58208-3200	701/795-4214			
Source: MREA, http://www.mrea.org/ourmembers/gt_member_table.htm						

Great River is an example of a Generation and Transmission Cooperative. Twenty-eight of the 44 member co-ops in Minnesota belong to Great River. This cooperative owns 10 generating plants and purchases wind energy. The largest generating plant is located in Underwood, North Dakota and generates 1114 Megawatts (MS). The smallest are three peaking plants that can provide 19 MW each. Great River acquires approximately 18 MW from wind. Sales to members in 2004 were 10,456,000,815 kWh.

In addition to generation plants, Great River owns 4089 miles of transmission line and operates 100 substations. It manages a large number of load management systems to reduce power load during peak operations with a maximum summer capability of 310 MW and winter capability of 175 MW.⁵

Municipal Electric Utilities

There are 126 municipal electric utilities in Minnesota. They range from the largest in Rochester that serves 92,000 customers to the town of Whalan with a population of 64. According the Minnesota Municipal Utilities Association (MMUA), Minnesota municipal electric utilities serve about 320,000 customers and the average number of customers per city or town is 2560. A map and list of MMUA members is found in Appendix IV. A few cities have their own power generation plants. Many purchase bulk power from IOUs, cooperatives or power authorities, and as a group, they are being integrated into the MISO system.

Generation & Transmission (G&T) Cooperatives generate electricity and transmit it to distribution cooperatives.

⁵ "2005 Facts" Great River Energy brochure.

Municipal utilities, like co-ops, are entities with a mission. Cooperatives provide service to rural users who might otherwise be served by investor-owned companies. Municipal utilities view themselves as low cost, non-profit power providers governed by city councils and directly accountable to their customers. It is common for municipal utility senior management to note that he or she needs only walk out of the door to encounter neighbor-customers. Further, the technical expertise contained within the local utility is seen as an added benefit for a small community. Expertise and help when power is out is said to be at hand locally and quickly.

MMUA represents the approximately 308,600 customers served by these entities (265,000 residential, 41,000 commercial and 2600 industrial). MMUA assists member utilities with safety issues, load management and training. As part of the municipal system electric reliability effort, the organization maintains a training facility in Marshall that teaches overhead line personnel how to handle transmission equipment safely and successfully. This facility also serves out-of-state line workers as well as Minnesota residents. MMUA

Minnesota Municipal Utilities Association

Telephone: 763-551-1230 / 800-422-0119

Facsimile: 763-551-0459 **Web:** www.mmua.org

Address: 3025 Harbor Lane North, Suite 400

Plymouth, MN 55447-5142

Figure 3

uses 15 regional safety groups operating in-state and in the Dakotas. A Regional Safety Coordinator assists member utilities with federal Occupational Safety and Health

Administration (OSHA) issues. Other reliability services include supervisor training and instruction in overhead and underground distribution, power generation and metering. The organization also supports its members with Mutual Aid Agreements held and managed by the American Public Power Association.

Traditionally municipal utilities tend to operate with relatively spare budgets and relatively low volume. Hence, they find some state-suggested or imposed mandates burdensome. According to MMUA, 65 percent of Minnesota municipals typically operate with "less than \$2,000,000 in annual revenue and 44 percent manage less than \$1,000,000 a year." MMUA staff has also questioned the economic value of MISO as a cost-controlling entity. As interstate organizations such as MISO grow in the marketplace, municipal utilities, with their mandate to provide low cost power on relatively slim margins, may be vulnerable to market volatility and changes in ways that are unanticipated.

Natural Gas Providers

The "State Energy Assurance Guidelines" point out that natural gas outages are less frequent than electricity disruptions. The fact that natural gas pipelines are typically buried underground shields them from the ravages of storms and ice. Improper digging and excavation by contracting firms are generally the greatest cause of gas distribution line

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⁶ CIP Comments, November 2001.

⁷ "Electric Prices High in Region – Is MISO a Solution or Part of the Problem," Steve Downer, <u>The Resource</u>, October 2005.

disruption. Such outages are local and easily fixed, but dangerous, as is any gas leak or pipeline break. Gas line breaks can lead to explosion and fire; hence, federal and state agencies have been created to oversee pipeline safety.

While the majority of natural gas used in the United States is transported from the Southwest/Southeast region (Gulf of Mexico, Louisiana, New Mexico, Oklahoma and Texas), Minnesota receives about 60 percent of its natural gas from Canada via the 48-inch Northern Natural Gas pipeline. Local Distribution Companies (LDCs) in Minnesota also obtain about 40 percent of the state's natural gas from U.S. gas fields. According to U.S. DOT and FERC regulations, natural gas pipelines are common carriers. They use daily "nominations" from LDCs to determine how much gas to transport. Gas is received daily with company nominations determined by the load curves for the day and month, weather patterns, forecasts and intra-day storage movement.

The other primary interstate natural gas pipelines serving Minnesota include Great Lakes, running from Emerson, North Dakota to the Minnesota-Ontario border; Canadian Gas, a southern leg of the Trans Canada pipeline that interconnects with Northern Natural near Duluth for winter flow only; and Viking, that runs from Emerson, North Dakota along the Canadian border to Mansfield, Wisconsin.

Disruptions on large inter- and intra-state pipelines are rare but companies are always concerned about *force majeure*, or "Act of God" issues that are out of their control. A *force majeure* disruption, such as an earthquake, can change delivery capability suddenly, leading to significant interruption of gas service.

Minnesota LDCs generally plan for growth in demand each year and have contracts with pipelines for added capacity annually as needed. Anticipating growth and making provisions for it is a major step in securing adequate gas for the future. In the short term, swings in usage can be moderated by stored gas and by peak shaving gas – normally propane. Because Minnesota has aquifer-fixed storage, it can store significant amounts in the winter; hence, about 30 percent of the gas in storage is working gas. Peak shaving gas is generally drawn down when the weather is very cold, about 30 percent of a design day. Ordinarily, planners would expect LDCs to maintain about 12 days supply of liquefied natural gas (LNG) and about 2 days supply of propane for peak shaving.

Natural gas companies have their own repair fleets plus contracts with pipeline repair specialists. Company crews primarily work on lines that are below 24 inches in diameter as well as customer connections and associated equipment. Pipeline companies and their contractors tend to work with lines that are 24 inches or larger. Any disruption in supply due to a pipeline break above the capability of the LDC will entail a great deal of communications and coordination between the LDC and the pipeline in addition to state emergency agencies, the U.S. Office Pipeline Safety, U.S. DOT and FERC.

⁹ The AGA defines a design day as a 24-hour period of demand that is used as a basis for planning gas capacity requirements

⁸ The American Gas Association (AGA) defines load curve as a graph in which the load of a gas system or segment of a system is plotted against intervals of time.

Managing Natural Gas Disruptions

Table 10 suggests eight steps LDCs and municipal gas companies take to mitigate shortage.

Table 10

Eight Steps for Managing Natural Gas Disruptions

1. Purchase and Transport Additional Gas

Depending on the availability of gas and transmission line capacity, an LDC or Municipal may arrange to buy additional gas to meet demand.

2. Increase Withdrawals from Storage

Gas companies that own or rent storage can increase the rate of withdrawal.

3. Increase Withdrawals from Other Operating System Sources

Most gas companies have access to other supply sources such as liquefied natural gas, propane air stations, and/or synthetic natural gas plants.

4. Increase Pipeline Pressure

In some pipeline systems, it is possible to increase the pressure ("increasing line pack") to store additional gas. This is usually done in anticipation of high demand levels. Allowable pipeline pressure increases are regulated by federal law.

5. Request that Customers Voluntarily Reduce Gas Demand

Large commercial and industrial customers may be asked to reduce gas use by lowering thermostat settings or reducing gas-consuming industrial processes. Residential customers may be asked to lower thermostat and water heating settings, reduce hot water demand, and defer using gas appliances.

6. Arrange for Import of Compressed Natural Gas or Propane

Compressed natural gas (CNG) and propane can be moved by rail or truck to supplement natural gas supplies.

7. Interrupt Selected Customers

Customers who contract for "interruptible" gas service at special lower rates can be cut off when temperature reaches a set percentage of the design day or for other purposes. Interruptible customers must have fuel switching capability.

8. Implement Gas Cutoffs

If a shortage is severe, a gas company can cut off customers, including those who are not on interruptible service contracts. This is a last resort measure to avoid loss of pressure in the entire system. The determination of whom to cut off is based on the configuration of the gas network and on customer priorities. Every attempt is made to maintain service to residential customers and special facilities and to cut service to lower priority customers first.

Source: State Energy Assurance Guidelines, Version 2, November 2005

Natural Gas Utility Stakeholders

Investor-Owned Local Distribution Companies

The largest LDC in Minnesota is CenterPoint Energy-Minnegasco. It sells gas to more than 760,000 consumers in all categories, or 90 percent of the state's natural gas customers. CenterPoint Energy delivers approximately 150 billion cubic feet (Bcf) of natural gas a year. It also has storage capacity for 12 million gallons of propane and 12 million gallons of LNG. Another 7 Bcf of gas is stored in caverns in the southern part of the state and 15 Bcf of storage is leased. Peaking reserves are 12 days for LNG and 5 days for propane. The company's intra-state pipeline infrastructure is extensive with 12,500 miles of distribution lines, 203 miles of transmission lines and 717,000 service lines. Nationwide, the company also operates 105,777 miles of main lines including 8200 miles of interstate gas lines that move over one trillion cubic feet of gas (Tcf) per year throughout the Midwest and Southwest to over three million customers.

CenterPoint is rapidly expanding its customer base. The company's 2004 Annual Report notes that Minneapolis is one the nation's fastest growing metropolitan areas and 17,000 new gas customers were added in that city. In addition to its aggressive residential customer growth, there were 3000 Minnesota interruptible customers on line – most of them large industrial facilities. In 2004, the company contracted to serve four new Minnesota industrial customers with an aggregate consumption of over five Bcf per year.

The company constantly monitors its system although its managers point out that "not all events are knowable." As noted, contractor digging error accounts for most of the damage to pipelines although there has been occasional vandalism (as when local teenagers turned off gas at the city gate to one of the company's municipal utility customers). A form of triage is used when supply is short in relation to the company's "Obligation to Serve." Usually, the first sign of a problem is a drop in line pressure.

The company's repair contracts normally run for three years. Sharing of company repair crews with other LDCs and municipal utilities is done on a "best effort" basis. That is, CenterPoint's crews must address their own infrastructure first before assisting others. In practice, the company, as a significant customer of Northern Natural Gas pipeline since 1934, says it has never experienced a major outage.

Xcel Energy also operates a large interstate natural gas company in addition to its electricity business. It supplies gas to 1.8 million customers in eight states. Its service territory covers the lower quarter of the state with most of its Minnesota natural gas business concentrated in the Twin Cities area.

Three other gas LDCs operate in Minnesota. Great Plains serves 19 communities in Minnesota and North Dakota and is a subsidiary of MDU Resources Group with headquarters in Bismarck, North Dakota; Alliant Energy also covers the southern part of Minnesota; and Aquila with customers north and south of the Twin Cities is headquartered in Kansas City, Missouri. Aquila absorbed Northern Minnesota Utilities and Peoples Natural Gas.

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¹⁰ The Obligation to Serve is a requirement usually found within a Certificate of Need. It means that the utility will supply energy (most often electricity) to paying customers.

Table 11

Investor-Owned Natural Gas Local Distribution Companies				
Company	Contact Information			
CenterPoint Energy (Minnegasco)	Phone:	Minneapolis: 612-372-4727, 612-372-4664, 800-245-2377 / Houston, Texas: 713-207-1111		
	web:	www.minnegasco.CenterPointEnergy.com. www.CenterPointEnergy.com		
	Address:	Minnesota: 800 LaSalle Avenue, Minneapolis, MN 55402 Corporate Office: 1111 Louisiana Street, Houston, Texas, 77002		
Xcel Energy	Phone:	800-895-1999, 800-895-4999, 612-330-5500		
Acei Ellergy	web:	www.xcelenergy.com		
	Address:	414 Nicollet Mall, 6th Floor, Minneapolis, MN 55401		
		, , ,		
Great Plains Natural Gas Company	Phone:	218-736-6935		
. ,	web:	www.gpng.com		
	Address:	105 West Lincoln Avenue, P.O. Box 176, Fergus Falls, MN 56537		
Alliant Energy	Phone:	1-800-255-4268, 319-582-5421		
	web:	www.alliantenergy.com		
	Address:	4902 N. Biltmore Lane, P.O. Box 77007 Madison, WI 53707-1007 and 1000 Main St., P.O. Box 769, Dubuque, IA 52004-0769		
Aguila, Inc.	Phone:	816-421-6600, 800-303-0752		
Aquila, IIIo.	web:	www.aquila.com		
	Address:	20 West Ninth Street, Kansas City, Missouri 64105 and 1815 Capitol Ave. Omaha, NE 68102		

Municipal Gas Utilities

There are 31 municipal gas utilities in Minnesota. These gas utilities vary widely in size just as do the municipal electric utilities. The City of Duluth, with a population of 87,000 is the largest, serving 24,000 natural gas customers. Austin, with 23,300 citizens, is next with 10,000 customers. The median Minnesota municipal gas utility serves a much smaller city of 3100. MMUA says that more municipal gas utilities are anticipated shortly. MMUA serves the gas utilities as it does the electric utilities by providing a variety of support and coordination services. Gas utilities typically have contracts with a variety of larger natural gas providers. A number of municipalities employ their own crews for repair. Most also use contractors or have arrangements with area LDCs. Just as with electric repairs and restoration, the local superintendent is the person who arranges for repair and restoration, lining up both materials and crews.

Petroleum Providers

The "State Energy Assurance Guidelines" point out that the petroleum market involves numerous companies, both domestic and foreign. In comparison to electric and natural gas, petroleum is more diverse and less predictable. Petroleum companies have no formal Obligation to Serve. They do not subscribe to national reliability organizations and

there are no regional system operators or transmission organizations participating in the movement of product. That does not mean that petroleum is entirely unregulated because the industry is subject to a variety of environmental, safety and marketing laws. If a petroleum marketer is asked what most troubles the industry, the first item mentioned will likely be the different fuel formulas – the so-called "boutique" fuel blends – required around the nation by air and water quality rules.

Oil is an international commodity and the U.S. imports well over half of the oil it consumes. In addition to the usual supply and demand factors influencing any commodity, oil is also subject to national policy decisions and market forces that exist outside the nation's control. The lack of domestic control – government or private – over much of the world's petroleum market leads to frustration over how best to manage petroleum products. In response to a request by the Minnesota Department of Agriculture, the state Attorney General issued a report in 2002 entitled "Minnesota's Gasoline Market" that concluded:

Apart from September 11th-related activity, the investigation concluded that common industry explanations for high gasoline prices, such as refinery cleanings, pipeline and refinery outages and environmental regulations, do not adequately account for recent price fluctuations experienced in Minnesota. Rather, increasing concentration at the supplier level and integration throughout the distribution system has resulted in conditions that are susceptible to supplier manipulation of gasoline prices, particularly in times of shortage.¹¹

While a number of the major oil companies are vertically integrated, managing oil from exploration and production through refining to retail sales, this market also contains many companies that specialize. For example, there are suppliers who refine and market but do not explore for or produce crude oil. Crude oil and petroleum products are traded on commodity markets and these, in turn, create their own dynamic and contribute to the potential volatility of oil prices.

At the retail level, closest to the buying public, the petroleum "industry" is heavily weighted toward middle level suppliers (jobbers) and retail outlets. Hence, the petroleum market is a mixture of national and international companies that may or may not be vertically integrated and local markets that span a variety of ownership configurations. Added to this mix are pipeline companies, overland transport and rail. The result is that energy emergencies involving petroleum products are complex and require cooperation among multiple organizations to develop an effective response.

The Rack Distinction and Price Movement

There is another important distinction noted in the Attorney General's 2002 Report, that of the "rack." In order to understand how petroleum supply is managed, it is useful to draw a distinction between what occurs "above the rack" and "below the rack." The rack is the physical structure from which liquid petroleum products, received at area terminals, are loaded into tanker trucks. Some petroleum dealers may define above the rack as supplies that are not taxed and below the rack as those supplies that are taxed. The rack distinction is useful for emergency planning because Minnesota jobbers and retailers are less likely to manage a shortage above the rack than below. Above the rack, increasing prices may attract additional fuel from normal supply sources if it is available. Prices may

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¹¹ "Minnesota's Gasoline Market," Minnesota Attorney General's Office, July 2002, p. 3.

also attract fuel from other (i.e., foreign) markets. Local dealers do not have much direct influence over this process.

Below the rack, local dealers will seek alternate sources if normal (usual or contracted) supply is short. If supply is short (or "tight"), a typical dealer will send trucks to as many terminals in the region as necessary in order to find product. Or, a retail dealer's drivers may just sit in line at a terminal until product is loaded. In that case, a normal wait of 30 minutes may turn into several hours. Customers are generally unaware of the effort retail dealers take to assure supply. Tight supply is generally reflected in price, but not always.

As commodities, petroleum product prices move up and down frequently for a variety of reasons often masking small shortages and adding to consumer frustration. Some national companies as well as jobbers and retailers increase prices the moment they sense a problem. How quickly increased prices are posted depends on how rapidly wholesale and spot market prices are predicted to rise. Storage, demand, and regional and local competition may suppress an immediate increase. As with any commodity, buyers tend to make pricing decisions in real time based on many factors – some of which are fact and some of which are not. Moreover, price increases based on temporary conditions may not look the same to all consumers. For example, a customer on a seasonal heating oil contract will see no change. A supply shortage may come and go before a non-contract customer seeks oil or a motorist pulls up to a filling station for another tank of gasoline. And, as most motorists know, prices tend to rise before major holidays or due to seasonal demand expectations.

Both above and below the rack, companies have also reduced the amount of storage capacity. This has created a "just-in-time" supply network that is normally smooth and responsive to demand signals.¹² During a shortage, however, a finely tuned just-in-time supply system communicates price changes rapidly. This is called market volatility. Higher prices invariably attract media attention that in turn may amplify the problem.

Minnesota's Petroleum Market Structure

The Attorney General's Report is an excellent source for describing the petroleum market in Minnesota. For ease of reference, information from that Report is summarized in Table 12.

¹² An examination of the just-in-time supply market reveals its justifications. Of course it enhances profits for suppliers to avoid competition with stored product purchased at lower prices. However, there are also sound profit reasons for reducing capital and upkeep expenditures associated with storage as well as costly environmental requirements. Many local communities are pleased to see the reduced risk to groundwater and other pollution with the reduction or removal of petroleum product storage facilities and tanks.

Table 12

Major Components of the Minnesota Petroleum System				
Above the Rack Crude Oil and Product Suppliers (Brand if different name) BP Amoco Cenex Citgo Conoco/Phillips (Phillips 66, 76, Circle K) Equilon (Texaco) Exxon/Mobil Flint Hills (Koch) Lakehead Pipeline System Marathon Ashland (Marathon, Super America) Murphy Oil (Spur) Sinclair Ultramar (Total)	Below the Rack Jobbers (Top ten 2002) NOTE: The Attorney General's Report reported 600. Industry sources believe there are about 800 jobbers in the state. The industry number includes both gasoline and heating oil retailers. Marathon Ashland Petroleum L.L.C Erickson Petroleum Company Amoco Oil Company Hartland Fuel Products L.L.C. Kwik Trip, Inc Buy Rite Fuels, L.L.C. Croix Oil Company Caseys General Stores, Inc. Avanti Petroleum, Inc. Erickson Oil Products, Inc. NOTE: The three largest deliver 1/3rd of the gasoline			
Refiners BP Amoco Flint Hills (Koch) Pine Bend Refinery Marathon Ashland Petroleum LLC St. Paul Park Refinery Murphy Oil Superior Wisconsin Tesoro Mandan, North Dakota Whiting, Indiana	sold in Minnesota. The 50 largest sell about 75 percent of the motor fuel sold in the state. Retailers NOTE: In 2003, the Attorney General reported that there were 2668 gasoline retail outlets. Most of these are either full service or recognizable local service stations. DOC counted 3354 including all types of retail outlets selling motor fuel in 2002. EIA reported 3820 gasoline stations in 2005. These disparities are probably due to the type of facilities included in each survey and a changing market.			
Pipelines (inter- and intra-state) Crude Oil Pipelines: Koch Lakehead Minnesota Pipeline Portal Wood River Product Pipelines: BP Amoco Murphy Tesoro Williams LPG (propane) Pipelines Alliance Cochin Lakehead MAPCO Other Transportation	Pipelines NOTE: While there are intrastate pipelines in Minnesota, product delivered below the rack is primarily carried by trucks. A pipeline from the Flint Hills Refinery carries fuel directly to the Minneapolis- Saint Paul International Airport and there are similar lines serving some larger industrial facilities. Transportation			
 Minnesota River Upper Mississippi River System Terminals (Owner) Alexandria (Williams) Esko in Duluth (Murphy Oil) 	Primarily transport for large loads and bulk trucks for local delivery. Bulk Plants Many jobbers such as the ones listed under Terminals own on-site storage often referred to as			

Eyota (Williams)	Bulk Plants. Overall, jobbers have joined with the
Mankato (Williams)	interstate industry in reducing the capacity of bulk
Marshall (Williams)	storage; however, heating oil jobbers generally
Minneapolis (Tesoro)	maintain some storage to help manage peak winter
Moorehead (Tesoro)	demand. The term Bulk Plant can be confusing
Newport (Erickson)	because it is common for some small retailers to
 Rosemount (Flint Resources) 	maintain their own storage and call it a "bulk plant."
Roseville (Williams)	
Sauk Centre (Tesoro)	
 Spring Valley (BP Amoco) 	
St. Paul Park (Marathon Ashland)	
 Wrenshall (Conoco) Minnesota River 	
Exchange Suppliers	
Various	

Petroleum Disruptions

Conservation measures taken to protect customers against a loss of electricity and natural gas apply to customers using propane or heating oil as well. But there are some differences in the petroleum market that bear further discussion. Petroleum markets are unregulated for price and common supply issues (there are antitrust and prohibitions against customer discrimination).

Price and pricing are significant issues for those who supply and sell in the petroleum market. Over the last three decades, there has been significant consolidation within the petroleum industry both at the national and local levels. This "vertical integration" affects pricing. Prices are also managed through a variety of instruments from volume purchasing parameters to site leases. And, as the Attorney General's Report shows, some of Minnesota's gasoline service stations have the posted selling prices set above the retail level by the jobber, or even the supplier. This accounts from some of the differences that motorists observe when adjacent stations post noticeably different prices.

Another impact on price is the advent of computerized trading. The days of the smoke-filled rooms at the Texas Railway Commission are gone. They have been replaced by wet and dry barrel traders on the New York Mercantile Exchange (NYMEX) who may know a lot less about petroleum than they do about profit and loss in commodity trading. This is to say, the openness of oil pricing is a mixed blessing. If anything, the market has become much more volatile with market transparency.

Because crude oil is an international commodity and is mostly fungible, demand in one part of the world may affect consumption elsewhere. Growing use of petroleum products in China and India has increased prices in the United States. Prices are also affected by environmental rules and the chemistry the oil refining industry developed to meet diverse demands. There are approximately twenty regional – boutique – fuel blends required to meet air quality standards by various jurisdictions around the United States. These may be relatively transparent from a commodity and price perspective until there is a shortage. Then the lack of fungibility between these products may support price increases as local systems strain to acquire approved supply.

The price impacts of heating oil and propane are cold weather issues. Cold weather shortage will burden economically disadvantaged consumers who may then turn to

government for assistance. Many jobbers, heating oil and propane retailers will work with local energy assistance programs to assist customers. But the major responsibility for assisting disadvantaged consumers falls upon government and local non-profit assistance organizations.

Typically local petroleum supply interruptions occur for the same reasons they occur with natural gas and electricity – tight supply. As with natural gas, tight supply results in higher prices. Since the price of petroleum products was deregulated by the federal government in the late 1970s, the primary way that oil shortages are managed is through price. Minnesota has experienced the effect of higher prices along with the rest of the nation in since 2001. The 2005 run-up to above \$3.00/gallon for regular motor gasoline shows that sufficiently high prices will modify consumer buying behavior and, more importantly, attract product from foreign markets.

Three Types of Interruption

Petroleum shortages tend to emanate from three types of interruptions – loss of crude oil, loss of refinery production and *force majeure* events such as the sudden loss of a pipeline. From the perspective of a supply disruption, the first may not be felt immediately because refineries will have stored crude on hand and finished product in the marketplace. There may be time to work around the loss of crude supply from one location as higher prices attract crude from other locations. If a work-around is possible, then a shortage may be contained quickly. If not, a domino effect occurs as the shortage works its way through to the distribution system.

Loss of a refinery may affect the immediate region it serves and long distance customers as well. The severity of the loss depends on the time of year for particular fuels, the status of alternative refineries and the ability of the industry to work around the loss. There are significant issues and procedures pertaining to refinery repair that affect the seriousness of any emergency.

The sudden loss of a pipeline may also be amenable to work-around. However, if the pipeline is a major trunk line, the implications can be severe. Pipelines, like refineries, have broad implications for both distribution and consumption, and may become a bottleneck affecting supply. Because of this, pipelines and refineries are of major concern for infrastructure protection. Since September 11, 2001, the entire petroleum industry has taken major steps to protect these assets with the enhancement of on-site security personnel and procedures. Even the relatively benign descriptive maps of energy infrastructure locations have been removed from federal and company information resources available to the public.

How Industry Contracts Affect Petroleum Disruptions

If product is sufficiently tight, suppliers may restrict volumes available to jobbers and jobbers may reduce volumes sold to retailers. Under such circumstances it is common for suppliers to hold jobbers to their contract maximum, or allocation. If a retailer calls the Minnesota Petroleum Marketers Association and says that he or she cannot acquire product "above contract," that is a sign that supply is tight. If the retailer is reduced to even 100 percent of allocation, that is a sign that there is a significant problem. If the retailer is held to something under 100 percent, then there is a serious shortage somewhere.

In an ordinary market, major suppliers have enough fuel to meet and exceed the contracted needs of their customers. In addition, they sell large volumes of "extra" supply to the open market, otherwise known as the spot market. Those jobbers and retailers who are not associated with major oil companies depend upon spot market product for their sales. Some retailers may actually be served by an industry contract and still need additional supply from the spot market. Jobbers having some contractual arrangement with major suppliers are more likely to have supply in a shortage than those who buy strictly on the spot market.

As major suppliers move to protect their contracted customers, non-contract jobbers, and their retailers, must scramble for product. That is why prices at spot market-supplied service stations rise sharply from their usual levels when supply is tight. Some call this a "market inversion" because ordinarily, major supplier-branded product costs more than spot market product. In the worst case, some service stations may have to reduce hours of operation or even close. At that point, the motoring public (and perhaps the media) may assume that "the stations are shutting down."

Requests to Government During Petroleum Disruptions

The most common request to government in a petroleum shortage is for abatement of driver hour requirements and environmental controls. These requests are made because transport drivers use up their travel time sitting idly at racks or, during winter, struggling to deliver fuel in bad weather. Temporary abatement of environmental regulations is requested to allow "boutique" fuel blends to enter a local market when the usual blend is limited.

In Minnesota, jobbers and retailers may also seek legal immunity for actions taken to abate a shortage. First, if they must cooperate at a state level, they will seek immunity from antitrust regulations. This can often be accomplished with a letter from the Attorney General and the attendance of a state attorney at any emergency planning meetings sponsored by DOC or HSEM. Other types of immunity may be requested for products carried in transports or failure to adhere to fuel blending requirements. Retailers may also seek assistance in supplying fuel to emergency priority users although they are prohibited by federal law from making such determinations on their own.

Other requests may be similar to those received from electric and natural gas repair crews regarding debris clearance, highway access, and permitting outside carriers to enter the state without being delayed for licensing, weight or other restrictions. Lessons learned from managing petroleum product shortages during the four 2004 hurricanes in Florida emphasize the importance of close coordination between state and local emergency management staff and comparable managers in the petroleum industry. Granting waivers and exemptions are sometimes matters of knowledge and trust as much as the specific facts of the immediate shortage alone.

Table 13

Summary of Possible Shortage Management Steps Taken by Petroleum Industry

Above the Rack

- 1. Increase product prices to reflect potential future cost of next supply.
- 2. Increase refinery runs tilted to heating oil or motor gasoline as product shortage demands.
- 3. Increase oil field production of tenable. Seek additional crude or product supply on spot and foreign markets.
- 4. Dispatch investigation and repair crews as needed for pipeline problems.
- 5. Restrict supply moving to market in accordance with availability.
- 6. Reduce/eliminate product sold to the spot market and cover contract (enforce contract provisions) customers on restricted allocation.

Below the Rack

- 1. Seek alternate supply as business arrangements allow.
- 2. Transport drivers sent to additional (e.g., out-of-area) terminals to find fuel.
- 3. Jobbers pass on allocation restrictions to retail outlets.
- 4. Request various waivers from government regulations.
- 5. Reduce hours of operation.
- 6. Seek government assistance in providing supply to critical customers.
- 7. Seek environmental waivers for fuel blends.
- 8. Seek additional trucks to move product to critical areas.
- 9. Local generators or other means of pumping fuel if electricity is cut.
- 10. Appeal to media to ask motorists to reduce driving.
- 11 Work with government and non-provide relief agencies for low-income heating customers.
- 12. Add driving crew if feasible.
- 13. Seek alternate means of dispensing fuel if possible.

Source: Derived from State Energy Assurance Guidelines, various state emergency plans, reports and the author's experience

Table 14 lists some of the principal Petroleum Marketing Stakeholders in Minnesota.

Table 14

Table 14	11		
	d Large Pet	roleum Marketing Stakeholders in Minnesota	
Company		Contact Information	
Avanti	Phone:	Unpublished	
Petroleum, Inc	ab.	Net eveileble	
	web: Address:	Not available 3030 Lexington Avenue South, Suite 7, Egan, MN 55121	
	Address.	3030 Lexington Avenue South, Suite 7, Egan, WiN 33121	
BP (formerly BP	Phone: UK telephone:*44(0)870 241 3269		
Amoco)	1 1101101	US and Canada:	
,		Facsimile: 630-821-3456	
	web:	www.bp.com	
	Address:	International Distribution Center, Crabtree Road, Thorpe, Egham, Surrey TW20 8RS, UK	
Buy Rite Fuels,	Phone:	Unpublished	
LLC & Buy Rite Services, Inc.		C. publici loc	
	web:	Not available	
	Address:	3731 Enterprise Dr. SW, Rochester, MN 55902 and	
		763 Kasota Ave. SE Minneapolis, MN 55414	
Croix Oil	Phone:	651-439-5755	
Company			
	web:	Not available	
	Address:	1749 Greeley St. South, Stillwater, MN 55082	
Erickson Oil Products	Phone:	715-386-8241	
Tiouucis	web:	Not available	
	Address:	1231 Industrial Street, Hudson, WI 54016	
Erickson	Phone:	612-830-8700	
Petroleum		Facsimile: 612-832-8551	
Corporation	web:	Not available	
	Address:	4567 West 80 th Street, Minneapolis, MN 55437	
	Address.	+307 West 60 Offeet, Millineapolis, Mil V 33+37	
Flint Hills	Phone:	651-437-0584	
Resources - Pine		Facsimile: 651-437-0868	
Bend Refinery			
	web:	www.fhr.com	
	Address:	P.O. Box 64596, Saint Paul, MN 55164-0596	
Lakehead	Phone:	218-725-0100	
Pipeline System		-13.23.100	
	web:	www.mapllc.com	
	Address:	21 West Superior Street, Duluth, MN 55802-2067 and	
		119 North 25 th Street East, PO Box 789, Superior, WI 54880	
Marathon	Phone:	419-422-2121	
Petroleum LLC	riiolie.	Facsimile: 419-425-7040	
(formerly			
Marathon-			
Ashland)			
	web:		
	Address:	Corporate Headquarters	
		5555 San Felipe Road, Houston, TX 77056-2723	

For most petroleum-related issues, Minnesota energy emergency responders can contact the executive directors of the three principal state petroleum industry associations listed in figure 4.

Figure 4 – Minnesota Petroleum Association Offices

Minnesota Petroleum Marketers Association

Address:

3244 Rice Street Saint Paul, MN 55126 Telephone: 651-484-7227 Facsimile: 651-484-9189 Web: www.mpmaonline.com

Executive Director Mr. Bob Krogman

Minnesota Propane Gas Association

Address: P.O. Box 220

Princeton, MN 55371
Telephone: 763-633-4271
Facsimile: 763-631-4272
Web: www.mnpropane.org

Executive Director Mr. Roger Leider

Minnesota Service Station Association

1705 Marion Street Roseville, MN 55113 **Telephone:** 612-487-1983 **Director of Customer Service**

Ms. Barb DeBrode

NOTE: There is no American Petroleum Institute state office in Minnesota. All issues managed by the former Minnesota Petroleum Council are now handled by the Minnesota Petroleum Marketers Association.

III. VULNERABILITY ASSESSMENT

This vulnerability assessment is not a scientific risk analysis. Rather, it is an attempt to point out some of the principal trends and areas in which energy is used and highlight the relative importance of various energy sources for different segments of energy users. These observations may serve as a guide for emergency responders when they try to assess the potential impact of shortage levels.

Energy Use Graphs (All graphs in this section source: EIA, State Data Report 2001) Please note, the charts used in the section are in log scale.

Energy End User Sector Consumption

The first step in understanding vulnerability is an overview of Minnesota energy use by consumption sector. These views show the relative dependency on various forms of energy by sector. Within each energy type, the customers who use the greatest amount are, as a class, the most vulnerable. In reality, not all customers within a class share risk equally. However, energy emergency responders will benefit from a general knowledge of which customers are most likely to be harmed first. Responders must also turn to local officials as well as rely on their own understanding of the customer base in order to discern differences of vulnerability within classes.¹³

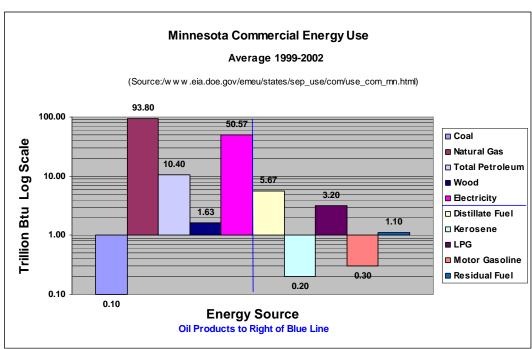


Figure 5 - Commercial Consumption

¹³ The data in these charts should be used for comparative purposes only because each graph is based on an average of 1999 to 2001 year data. Data was drawn from the most recently available <u>complete</u> EIA state data information available the time of writing. More current data is available for transportation fuels and natural gas and is included in Appendix II.

Within the commercial sector, natural gas is the dominant fuel, followed by electricity. Natural gas is primarily used for space conditioning. The graph shows petroleum totaled on the left with separate products broken out on the right. Most of the petroleum used in the commercial sector is distillate, indicating it is used for space conditioning and transportation. LPG (liquefied petroleum gas, or propane) provides space heating primarily in rural areas. The remaining uses are relatively minor. Note: All the energy use sector charts in this section are in log scale.

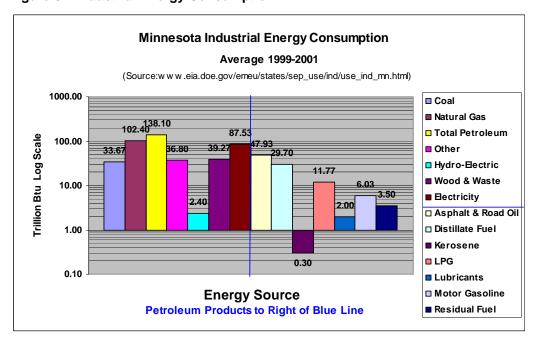


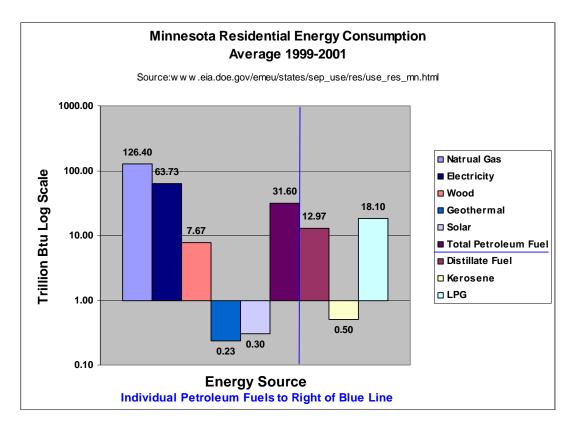
Figure 6 - Industrial Energy Consumption

Petroleum is dominant in the industrial sector. Within the total petroleum column, the product is broken down into its components. Distillate fuel is used primarily for processing, apparently in combination with a number of other oil derivatives (for examples, see Figure 9). Motor gasoline is second. Propane is also used for some minimal space heating but its principal industrial use is for crop drying and poultry (Minnesota is 2nd among all states in turkey production and 7th for egg sales).

Figure 7 illustrates that natural gas is the primary space conditioning fuel used in Minnesota homes. Natural gas companies generally expect to increase net residential gas sales by just over one percent per year, including growing sales for gas appliances. Natural gas is sold statewide with major companies like CenterPoint Energy and Xcel concentrated in urban areas while smaller companies and municipals are spread throughout the rest of the state. Since 2000, many summer homes in the northern part of the state were converted to natural gas as owners prepared these properties for year-around use. Typically, an area may be served by propane until a critical mass is reached and then it becomes financially attractive for a natural gas company to invest in infrastructure and assume what was formerly a rural market. The growth of natural gas sales in Minnesota has created some concern among municipal utilities about the need for

additional pipeline capacity in the future and its cost to consumers. In fact, some of the major natural gas carriers have already applied for permits to add pipeline capacity to their systems.





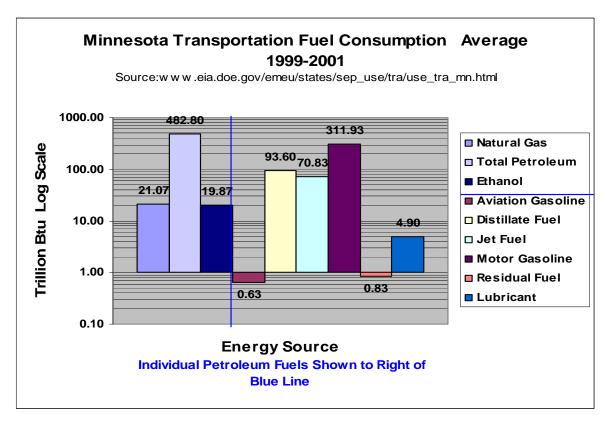
Electricity supplies about half as much energy as natural gas; however, the electric data includes a substantial portion for appliances and lighting. It can be assumed that the bulk of natural gas is used for space conditioning. Petroleum supplies half as much as electricity with the bulk of it in propane, primarily for rural heating. The remainder of the petroleum column is made up of distillate and kerosene. It is assumed that wood is burned primarily in rural and vacation areas; the graph show it to be a "substantial minor" fuel. The data does not differentiate between space conditioning and appliances for propane or between space heating and supplemental or decorative fireplace use for wood.

It is no surprise to see that petroleum is dominant in the transportation sector (see Figure 8). The primary petroleum fuel is motor gasoline. Minnesota has two in-state refineries. It also receives substantial product from another refinery in Wisconsin. The state may enjoy some advantage in having gasoline distilled close to consumers. In a shortage, state users could offer bids for a given volume of motor gasoline at a slightly lower price than out-of-state consumers whose bids would have to include a higher transportation premium. It appears that Minnesota enjoyed as much as a 30 cents/gallon advantage over many other states during the aftermath of the Gulf Coast hurricanes in 2005.

While lower refinery-to-consumer transportation cost may have accounted for some of the post-hurricane season price advantage, the presence of ethanol for motor fuel use (as a

percentage additive or as a primary fuel) may also have given a marginal price advantage to Minnesota consumers.

Figure 8 – Transportation Fuel Consumption



Summary Overview of All Energy Consumption Sectors

Combining all of the major consumption sectors, Figure 9 depicts all the energy sources in Minnesota. Electricity (coal, hydro and nuclear, less line loss) accounts for about 30 percent of total energy consumed. Petroleum accounts for approximately 38 percent while natural gas is approximately 22 percent. The remaining 10 percent includes a variety of smaller energy sources. Motor gasoline stands out among all petroleum products. Distillate provides less than half of the Btu furnished by motor gasoline and propane just over one-tenth. Residual oil, primarily burned in large industry boilers, serves the industrial sector. LPG serves rural residential, some commercial, and agriculture. "Other petroleum products," exceeding propane (LPG), is a combination of 16 different oil derivatives used for a variety of needs. The impact of shortages among "other petroleum products" is hard to discern. Such shortages rarely make news. Furthermore, EIA data for these products are primarily estimates. There is a strong asphalt and road oil market in Minnesota serving industry and the state's highway and rural road network.

Minnesota Total Energy Use All Energy Average 1999-2001 (Source:www.eia.doe.gov/emeu/states/sep_use/total/use_tot_mn.html) 1000 Coal 356 355 318 ■ Hydro Electric Pow er ■ Nuclear Electric Power 143 133 137 Natural Gas 71 ■ Total Petroleum 48 43 **Trillion Btu Log Scale** 33 33 Other □ Electric Flow Loss ■ Wood & Waste 10 10 6 Asphalt & Road Oil ■ Aviation Gasoline Distillate Fuel Jet Fuel 0.97 ■ Kerosene ■ LPG 0.63 ■ Lubricants ■ Motor Gasoline 0 □ Residual Fuel **Energy Source** Other Petroleum Product Petroleum Breakdown to Right Side of Blue Line

Figure 9 - Total Energy Consumption and Oil Consumption Detail

Electric Power Consumption

Figure 9 provides only a partial view of the energy sources used for electricity in Minnesota. Figure 10 supplies another glimpse at the relative importance of the energy used to generate electricity. As expected, coal is the primary energy source for electricity. Nuclear power is the second largest component while electricity imports are the third. Natural gas is clearly a peak shaving fuel for electricity. Since this data was reported, MISO has become a major player in the Minnesota electric market and imports may have grown as increasing amounts of power are transmitted in and out of the state within the regional power pool. Minnesota data managers will want to observe this carefully.

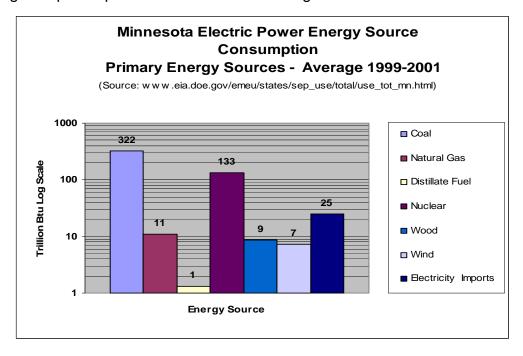


Figure 10 – Breakout of Energy Sources for Electric Power

Coal

In 2004 the state consumed 20,958 thousand short tons of coal for generating electricity. Most of that coal came from Montana and Wyoming. Together these two states supply just over 98 percent of the coal used to generate electricity in Minnesota.

Table 15

Minnesota Coal Imports 2004		
State	Electricity Production	
	Thousand Short Tons	
Illinois	179	
Indiana	94	
Kentucky	12	
Eastern	12	
Montana	11,498	
Southern	20	
Virginia	50	
West Virginia	20	
Wyoming	9,073	
Source:		
http://www.eia.doe.gov/cneaf/coal/page/coaldistrib/d_mn.html		

Minnesota enjoys the advantage of having significant coal resources close to the state and thus can enjoy relatively low transportation costs for this energy source. However, over the last several years, coal prices have increased dramatically as coal foreign electricity consumption has increased and coal has become one more energy source with prices driven, at least on the margins, by foreign demand. An

EIA analyst observed that:

"In the international markets in 2004, both U.S. coal exports and imports increased for a second consecutive year....The average delivered price of coal increased in all markets in 2004. However, the increases in the domestic markets were not as dramatic as in the international markets."¹⁴

EIA data also shows that U.S. coal production is growing, coal used to generate electricity is increasing, and reserves are falling. Prices have also increased sharply. This indicates pressure on this resource that poses some long-term risk for the continuity of coal production and its price for domestic consumption. These trends are shown in Appendix VI. The EIA concludes that:

In 2004, the coal industry experienced increasing production levels as well as increasing coal consumption. Both exports and imports of coal grew, with net exports also increasing. Delivered coal prices for all sectors increased for a second consecutive year, while export prices reached new heights. Coal stocks in the electric power sector experienced another significant decline in 2004. Factors expected to contribute to increased coal demand and production in 2005 (see Energy Information Administration's *Short-Term Energy Outlook*) include:

- Continued economic recovery
- Continued recovery in coal exports
- Assumed return to normal weather patterns (colder winter weather)
- High natural gas prices
- Settlement of legal issues affecting both coal producers and consumers

Overall, our current expectation is for coal production in 2005 to grow more rapidly than it did in 2004. ¹⁵

¹⁵ *ibid*, p. 12

¹⁴ EIA, "U.S. Coal Supply and Demand: 2004 Review," Fred Freme. p. 1

Rising coal prices affecting Minnesota electricity costs may be mitigated somewhat in the long-term as plans efforts continue by the Dakota, Minnesota and Eastern Railroad (DM&E) to expand unit rain coal service in the Wyoming Powder River Basin. The twenty year effort to expand this service may be moving toward completion since final approval was received from the U.S. Surface Transportation Board in February 2006.

Additional Considerations for Assessing Vulnerability

Minnesota's Indigenous Fuel Resources

Minnesota does not have an abundance of indigenous fuel resources that can be extracted to meet the states energy needs. As such, the state is dependent on the myriad of transportation systems that are able to move the necessary resources into the state from other areas of the country. These systems consist primarily of the rail and pipeline systems that deliver the bulk of the energy resources that are subsequently consumed within the borders of the state. However, Minnesota has aggressively pursued policies that seek to utilize those resources that are available within the State. Largely, these resources consist of renewable fuels and biofuels such as wind, ethanol, and biodiesel. As has been mentioned previously in this report the utilization of these energy resources, while small relative to the entire energy mix, plays an important role in Minnesota's energy consumption picture. The decision to require certain percentages of biofuels, such as ethanol and biodiesel in transportation fuels has the effect of reducing the amount of fuel that is imported into the state, while providing an economic benefit to the state as a whole. In any energy emergency, the influence of these systems will have to be considered as restoration activities commence.

Vulnerability in the Electric System

Minnesota electric systems are generally reliable with multiple transmission and distribution feeds and access to utility-owned generation as well as the generation market. The state system currently has enough generation capacity to meet peak loads as well. Mutual aid agreements and repair efforts appear to move smoothly and quickly when called upon.

Regional System

There is currently a transition period as the state becomes fully integrated in the MISO regional transmission market system. In this area, the greatest system impact will probably occur in pricing.

Major System Infrastructure

Minnesota, as most other states, may be vulnerable in the face of major system infrastructure loss. The U.S. Department of Homeland Security and regional and state officials are laying out the implications of component replacement and cost. Loss of major turbines and substation transformers, for example, could cause interruptions in power at major facilities, leaving utilities to pay market prices for the replacement power.

Transmission lines are among the most exposed and, therefore, vulnerable components of electric systems. Rural areas usually have lower numbers of transmission lines feeding

an area and have no protection from extreme weather. As such, rural areas are subject to addition risk of power failure. As such, planners need to balance the cost of maximum preparedness versus the probability of a major weather or other disaster.

A major ice storm occurred early in the winter of 2005 along the western border of Minnesota and North and South Dakota. The damage to transmission and distribution facilities was extensive. Early intervention of the Midwest ISO prevented the impact of the infrastructure outage from becoming any worse than it did, which highlights the importance of MISO's involvement in any major electrical outage. Consequently, there were areas of the region that were without power for extended periods while companies focused on the restoration of service to these areas. As there were extended periods of electrical interruption, many homes and businesses resorted to the use of emergency diesel generators. This trend ultimately placed a strain on the supplies of diesel fuel in the area at a time when agricultural demand was just beginning to subside.

There is a long-term issue regarding transmission that may ultimately affect Minnesota. The summer heat wave in 2006 highlighted inadequacies in power grid infrastructure in several states including California, New York and Virginia. A recent U.S. Department of Energy report on electric grid congestion also identified so-called remote areas of the nation, such as rural Montana and the Dakotas, as areas where upgraded transmission will be required. Due to the interconnectedness of so much of the U.S. electric grid, problems in one area may be reflected elsewhere. This is essentially what happened during the 2003 Northeast blackout.

Electronic Architecture

The increasing importance of regional organizations and system-wide power management also raises the issue of electronic architecture. Computers are subject to a number of risks from amateur and criminal intrusion to terrorist "cyber" attacks. The use of well encoded proprietary software and secure systems is a necessity. Often electric system operators have several levels of redundant system controls that can operate independently, allowing one electric system to take over the operation of another system in the event of an attack or outage affecting all or parts of the system. Because most of these control systems are computer based, protection of the computer system (electronic architecture) is crucial.

Multiple Events

Minnesota electric providers are well equipped to handle single events but are concerned about multiple events that may be outside of their control. Multiple major storms (or any other multiple disruptions) strain any system's capability to recover rapidly. U.S. infrastructure protection protocols are under development and it is incumbent upon energy providers to assure that multiple damage risks are addressed. Experience in states that have faced multiple damage events shows that careful planning and pre-positioning of equipment and personnel can reduce restoration time. Emergency generators and transformers can also be sought from the federal government or private companies that rent such equipment. However, commercial equipment is usually distributed on a first-call basis and may not always be available. American and Canadian electric utilities take pride in sending crews to assist recovery near and far from home. This cooperation reduces risk for consumers. Knowledge that this help is usually available may not be included within a state's planning parameters unless it is recorded in mutual aid agreements.

One additional area to monitor is nuclear safety. With two nuclear-powered plants generating just over 10 percent the State's electric power, federal and state officials continue to monitor issues such as emission levels, spent fuel storage, uninterrupted supply of cooling water, and personnel training.

Vulnerability in the Natural Gas System

Natural gas systems' risks are different but no less important than electrical systems. Ordinarily, damages to small distribution lines are repaired rapidly reducing both safety risk and loss of energy. Extended periods of extreme cold can also strain gas systems as accelerated consumption of large volumes lowers line pressure. Gas companies regularly remove interruptible customers when conditions are very cold to maintain pipeline pressure.

The loss of a major pipeline could create significant interruptions in natural gas service if gas could not be received from another pipeline. Protecting long-range, large volume pipelines is another aspect of infrastructure protection. There is also some risk for pipelines in the viability of pumping stations should natural gas and alternative fuels become tight. Additionally, risk increases when major areas of continental production are slowed or shut in as with the Gulf Coast hurricanes in 2005. Long-term risk is also associated with sufficient line capacity. These are factors gas utilities address constantly in order to meet their "Obligation to Serve" with sufficient infrastructure.

Whenever a natural gas system is shut down, consumers will have to wait until qualified technicians return every element to service. For safety reasons, it is necessary for lines to be re-pressurized in an orderly manner and for individual burners to be re-lit by trained personnel. This takes time to accomplish and is one of the risks associated with gas systems.

Vulnerability in the Petroleum System

While the electric and natural gas systems are provider-managed, they are closely watched by regulators. This creates a comfort zone for emergency managers who can count on regulation to identify and help these industries solve some (not all) problems. Petroleum system operations, however, are not regulated. This creates risk, including public outcry when prices become the principal tool for managing petroleum products during a shortage.

Production and Supply

All U.S. consumers need to be concerned with the basic fact that oil is an international commodity and that over half of the U.S. supply comes from outside the country. This dependency on foreign sources of oil increases risk from foreign demand as well as politically-driven production issues. Both factors have severely affected U.S. consumption in the past and will do so again. These risk factors have proven to be at least as important in the U.S. market as domestic risk such as partial, or full, refinery shutdown, or the cost of improved environmental management for both facilities and fuel. Within the United States, some risk is reduced when higher prices create incentives for increased production from domestic fields or trigger a release from the nation's Strategic Petroleum Reserve (SPR). However, a sustained loss of foreign supply can be fully remedied only by increased prices

that, in turn, eventually reduce demand and attract the import of both crude oil and finished product.

Within Minnesota, the Minnesota Pipeline Company is seeking approval for the construction of a 24 inch, 295 mile, line paralleling an existing pipeline through Clearwater, Hubbard, Wadena, Todd and Morrison Counties, with new right-of-way requested from 176 miles of the Twin Cities to the Flint Hills Refinery. Hearings on this "MinnCan" project were held in March 2006. Expansion of pipeline capacity into the state would increase the amount of crude oil reaching the Flint Hills refinery and thereby reduce vulnerability in the petroleum area.

Refineries

Consumers do not purchase crude oil for their energy needs. The oil products they use come from refineries. As part of the critical energy infrastructure, refinery continuity is another element of risk. Two things are important for refining: 1) crude oil must be delivered to the refinery and 2) the facility must be able to operate safely. Even when sufficient crude oil is received, refinery operation can be reduced by such events as fires, storms or routine maintenance. It takes time to restart any major energy system from "black" starting an electric grid to refilling a natural gas pipeline. The same is true for a refinery. If a refinery is to be shut down, it must be done in an orderly manner. If it is shut down suddenly, extensive damage to equipment will occur and potential safety hazards escalate. Even restarting a properly shut-down refinery takes time.

The record of production from American refineries is extraordinary. This helps to reduce risk associated with these facilities. Refineries such as Flint Hills and Marathon have sophisticated control systems and continuous monitoring to prevent accidents and problems. Refinery staff drills regularly on emergencies that might arise and threaten output. Maintenance is ongoing. While a refinery like Flint Hills has upgraded and improved equipment, no new refineries have been built in the U.S. for three decades. Even with the best maintenance and training available, refineries are at risk. Minnesota planners will want to monitor the status of refining in the state as part of their ongoing risk reduction effort.

Distribution

The petroleum distribution system is multifaceted and complicated. In practice, this tends to reduce risk associated with distribution because there is significant redundancy in the system. Minnesota jobbers can always drive to an alternate terminal and trucks can deliver product as long as some road structure is in place to provide access. However, a loss of electricity may restrict the ability of retail gasoline stations to pump fuel. If an areawide outage occurs, this could create a severe short term problem for motorists.

Petroleum companies and distributors also express concern about environmentally-driven fuel blending requirements and environmentally-mandated fuels that restrict the fungibility of fuel, especially during a shortage. Risk in these areas has been significantly reduced

¹⁶ Notice of Pipeline Routing Permit, Application Acceptance and Public Information Meetings on the MinnCan Pipeline Project, PUC Docket # PL/PPL-05-2003.

due to the skills of petroleum chemists and refinery operators who have been able to meet mandated blending requirements in less time and at lower cost than predicted.

Minnesota has two requirements that are somewhat unique to the state – the first is that Minnesota was the first state to require 10% ethanol in all motor gasoline sold in the state. The second is a 2% biodiesel blending requirement that applies to all diesel fuel sold in the state. In addition Minnesota has led the nation in the consumption of E85 fuel and the deployment of E85 stations. E85 is an 85% ethanol, 15% gasoline blend that can be used in Flex Fuel Vehicles, which are available from a number of automotive manufacturers.

One particular anomaly in the state delivery system is worth noting. An occasional restriction occurs when propane supply is tight. If a customer's contracted company cannot deliver fuel for any reason, it is very difficult to purchase alternate supply from another dealer because the consumer's propane tank is generally owned by the contract supplier. This risk factor may be reduced with cooperation and assistance from industry and emergency management personnel.

Labor

Finally, an issue that affects all areas of energy production and delivery is labor. One type of vulnerability mentioned elsewhere in this plan is the issue of motor carrier work hours during times when retail oil and propane companies experience difficulty keeping up with demand – e.g., during heavy snow and icy weather.

Another kind of labor-related vulnerability could affect the production, mining, and delivery of energy. Work stoppage or strikes would have the same impact as a pipeline breakdown, coal pile freeze up, or interruption of transportation. In the event of labor issues, the DOC would need to work closely with state officials who specialize in labor issues. The most likely response scenario for state energy responders would be to encourage measures that reduce consumption by end users. Long-term labor issues could also require the activation of state and local emergency operation centers.

IV. OPERATIONAL PLAN

This section is designed to provide guidance in identifying the onset of a shortage, classifying its severity, listing energy emergency conservation measures contained in Minnesota rules and discussing public relations.

The section describes four widely used triggers, or levels of shortage, that signal the onset of an energy problem. These levels are primarily suggestive, albeit based on experience, and the percentages of shortage are approximations. That is, they are guidelines, not axioms. Indeed, managing an energy shortage is as much an art as a science. Furthermore, the intensity of an energy emergency may vary from one fuel to another; for example, natural gas delivery may be interrupted while petroleum product delivery is normal.

Four Categories of Energy Shortage Shortage Level 1 - Monitor and Alert

There is no discernable shortage in the area; but shortages are possible elsewhere. No specific level is identified. External conditions such as weather, conflicts abroad or reports of increased demand in foreign and domestic markets may alert officials to increase monitoring.

Figure 11- Level 1 - Monitor and Alert

Conditions (one or more may apply)	Probable Impacts Observed
Severe cold weather in any region affecting Minnesota may cause local supply problems.	Gasoline, heating oil and propane prices may increase (natural gas or electricity prices may rise depending on the impacted area).
Reports of shortages in other parts of the United States, or reports of natural or political difficulties in oil producing countries, may affect petroleum and petroleum product prices on the NYMEX.	State jobbers monitor the potential for supply shortages and there may be increased wait times at terminal and refinery supply racks.
Local prices may move up rapidly in response to severe weather, spot market prices or speculation on commodity markets.	Some gasoline stations, if queried (especially during the summer driving season), will report greater than normal buying as motorists attempt to secure the current lowest price.

Expected Response Steps

During this phase, Minnesota officials and energy providers will be taking all or some of the following steps:

- Monitor supply and demand.
- Report any incidents to designated authority:
 - Electric: PUC, DOC, HSEM, MREA, regulated utilities, MMUA, MISO, NERC, FERC as appropriate,
 - Natural gas: PUC, regulated utilities, interstate pipeline operators, HSEM, DOC, FERC as appropriate,
 - Petroleum: No reporting expected. Some jobbers and dealers will contact state associations.

 DOC monitors winter petroleum heating fuel costs through the State Heating Oil and Propane Program (SHOPP).

Shortage Level 2 - Mild Shortage

Monitors observe that tight energy supplies may have a short term impacts on energy prices. Such an Alert may be declared if there is likelihood that the state will experience an energy supply shortage during annual peak demand periods. This determination includes an examination of the state and regional supply and demand outlook for the near-and long-term. For example, a mild shortage in heating fuel at the end of winter or early spring may be managed without declaring a formal Alert because warm weather is anticipated. On the other hand, a mild shortage of gasoline in the spring may trigger additional monitoring and use of voluntary conservation measures in anticipation of summer driving.

A number of proprietary information services can abet this process. NASEO also coordinates with the U.S. DOE, Office of Electric Delivery and Energy Reliability to sponsor semi-annual fuel outlook conferences each spring and fall in Washington, D.C. Information about these meetings can be found at www.naseo.org or by contacting NASEO at 703-299-8800.

Figure 12 – Level 2 - Mild Shortage

Conditions (in addition to previous phase; one or more may apply)	Probable Impacts Observed	Media/Public Reaction
The U.S. DOE, American Petroleum Institute (API) or other sources report a decrease in the availability of product (e.g., from Middle East, South America, domestic refineries). Minnesota Petroleum Dealers Association learns from members that rack waiting time has increased.	Some jobbers report supply and delivery problems or related issues (e.g. extended rack wait time). Deliveries may be temporarily extended beyond routine hours. Tighter market conditions indicated by upward pressure on prices or noticeable price volatility.	National news may report events indicating that particular energy supplies will be delivered short of expected volume. Stories about energy may be featured in the media. Media may institute "gasoline watch" features on regular news segments.
Spot prices increase somewhat. National and regional oil companies (prime suppliers) may begin to hold jobbers to contract allocation versus buy-as-needed.	Some retail dealers are uncertain about product availability and question information received from prime suppliers.	Media may feature reports about higher prices.
Strong draw on natural gas supply may increase. LDCs may begin to seek additional supply sources. A local generating plant has to be shut down temporarily. Electric lines may be out of service due to localized damage.	Gas distribution companies may curtail interruptible contract customers. Natural gas prices increase. Electric utilities may institute peak hour load management steps. Wholesale electricity prices rise due to temporary imbalances between supply and demand	Media reaction may be minimal depending on the level of price increase and/or curtailment impacts. A few news reports are likely, most likely in newspaper business sections.
Some problems with energy delivery systems are observed such as refinery outages, transportation problems or sudden increases to tertiary (consumer level) storage.	Government assistance in removing retail driver hour limitations may be sought.	News stories, mainly features, are likely.
Petroleum dealers report increased pressure on their ability to deliver fuel.	Some customers call dealers to top off home storage tanks. Dealers complain to associations about increased cost of rack waiting time or other shortage-related delay.	News stories, mainly features, possible. Some inquiries may be received by government and non-profit agencies.

Expected Response Steps

During this phase, Minnesota officials and energy providers will take all or some of the following steps:

- Authorities will receive information from the IOUs and MISO if an electric capacity deficiency emergency is anticipated. Ordinarily, utilities and petroleum dealers will provide seamless work-around for mild shortages so that the public does not notice them.
- Utilities may request voluntary load management.
- DOC will work with HSEM to consider a public information campaign designed to refresh consumer knowledge about ways to reduce energy demand.
- Public authorities may ask consumers for voluntary conservation measures to reduce the demand on affected energy sources.
- LDCs may warn authorities of potential supply problems. Ordinarily, gas providers will find alternative supplies so that the public will be unaware of a mild shortage. If local distribution companies believe a shortage may worsen, they will be more inclined to contact authorities.

Other steps include:

- Additional monitoring will be implemented. HSEM and DOC have flexibility in determining the appropriate monitoring level and frequency.
- As a supplement to the federal EIA-782C reporting form, prime suppliers may be contacted to obtain advance information about distribution issues, prices, and supply.
- DOC may request information from retail service stations on matters including, but not limited to, the following:
 - i. Price
 - ii. Estimate of gasoline redelivery times
 - iii. Storage levels
 - iv. Current supply relative to that received before the shortage
 - v. Extraordinary situations experienced or observed.

Shortage Level 3 - Moderate Shortage

A 10 to 15 percent reduction in petroleum products for three weeks or more or a 10 to 15 percent reduction in natural gas supply nominations on interstate pipelines is observed. Storm damage may occur to electric transmission/distribution infrastructure. Electric power may be out to large numbers of customers from 72 hours to a week. Inside the City Gate (the point at which gas moves from the pipeline to local distribution lines), curtailments beyond interruptible contract customers becomes necessary. If HSEM, in coordination with the DOC and PUC, determines it appropriate, it may ask the Governor, the Executive Council or the legislature to consider an Energy Supply Emergency as set out in Minnesota Rules, Chapter 7620.0210. Such an Emergency may be declared if it seems likely that a shortage will occur within three months. If such a declaration is made, it may continue for no longer than 30 days. Such a declaration must define the geographic area of the state involved. The Executive Council or the legislature is responsible for informing the public, depending upon which group issues the declaration. Monitoring and analysis precautions for this step are the same as noted for a Level 2, Mild Shortage.

Figure 13 – Level 3 - Moderate Shortage

Conditions (in addition to previous phase; one or more may apply)	Probable Impacts Observed	Media/Public Reaction
Petroleum product imports to the state or states drop five percent from the previous year or other base period. Contract allocations for a growing number of petroleum retailers are reduced.	Jobbers report difficulty in obtaining or delivering enough supply to satisfy customers. Queuing occurs at wholesale loading racks increases to several hours per load.	News reports about shortage appear on regional and national broadcasts. Federal and State officials are interviewed.
Local weather, or storms in other regions, results in problems that lead to temporary disruption of electric service in Minnesota.	Some transportation companies add a "fuel charge" to their usual price. [this might not happen at this phase]	The U.S. DOE, or other federal agencies, and energy companies, publicly confirm shortage.
Oil product prices rise steadily and level off temporarily before rising again. Prices for key fuels rise at a rate of 10 percent or more per week.	Some retail dealers have difficulty meeting contract obligations. Prices rise rapidly at independent service stations purchasing from the spot market.	Energy shortage in affected area is highlighted on national news. Media fuel watch programming occurs often. News media begin to use the words "energy crisis." Accusations about price gouging are possible.
Natural gas supplies are strained to meet state demand for firm customers. Heavy draw on storage is projected, alternate supply sources are tapped, pipeline company may "pack" lines to increase throughput.	Industrial and commercial interruptible gas customers experience extended curtailment. This in turn places growing demand on heating oil and propane.	News media increase the number of feature stories about shortage. Fuel companies and others will advise consumers to reduce demand and may seek voluntary conservation measures for business and industry.
Interstate electric generation capacity is severely strained by wide area severe weather (cold or heat); severe storms cause transmission loss, or other disruption.	Utilities curtail load leading to a threat of rolling blackouts or blackouts.	Media coverage is likely. Some economic impact felt, mainly by retail commerce. Officials ask for explanations.
Growing numbers of low- income customers have difficulty paying for fuel.	Requests for federal Low- Income Heating Program (LIHEAP) assistance increase and government agencies receive calls from individual households for help.	News media begin to cover energy problems several times a week. Low-income advocates demand help. Volunteer programs accelerate.

Expected Response Steps

During this phase, Minnesota officials and energy providers will take all or some of the following steps:

- Authorities will continue to receive information from the IOUs and MISO. Utilities and petroleum dealers will find it increasingly challenging to provide seamless work-around.
- Utilities may require a reduction in electricity demand.
- A declaration of an Energy Supply Alert by the Commissioner of DOC may be needed for government to begin warning the public about an impending shortage.
- DOC will work with HSEM to provide public information to refresh consumer knowledge about ways to reduce energy demand.
- DOC will continue to analyze energy supply and evaluate appropriate alternative courses of action including voluntary and other measures beginning with the least restrictive measures specified in Minnesota Rules, Chapter 7620.0500 to 7620.0730.
- Government authority will ask the public to implement voluntary conservation measures in order to reduce demand for affected energy sources. It may also require reduction of energy use in government facilities.
- During a moderate shortage, if MISO is unable to import sufficient regional supplies of electricity to the state (e.g., due to an increase in regional demand or a failure within the distribution system), area utilities may request HSEM's and DOC's help in calling for voluntary conservation measures.
- Customers with interruptible service will be required to switch to an alternate fuel source so that utilities can avoid instituting more drastic load control actions such as rolling blackouts.
- The affected energy sectors (residential, commercial, industrial, and government) may be required to institute mandatory conservation measures if it appears that voluntary conservation measures are not achieving the desired level of demand reduction.
- During a Level III shortage, MISO may require Minnesota electric utilities to begin selective rolling blackouts. Selective blackouts usually affect large industrial customers first. DOC will make recommendations via HSEM to the Governor about whether mandatory measures should be implemented at this point.
- If a pipeline loss occurs, LDCs will shut off the gas lines to affected areas until repairs are completed. Upon completion of repairs, gas companies must relight pilot lights for each suspended customer.
- Local natural gas companies may do the following:
 - Request emergency gas from unaffected pipeline suppliers.
 - o Pursue spot market purchases.
 - Curtail service to interruptible customers.
 - Augment supplies with LNG and propane.
 - Request non-interruptible contract customers that have fuel switching capabilities to use their alternate fuel source.
 - Request customer conservation.
 - Adjust gas pressures as needed.
- If energy customers require assistance in locating alternate fuels, DOC will assist them.
- Petroleum problems may be compounded if the moderate shortage is due to a sustained increase in demand from other areas of the country or international markets. If there is a shortage of crude oil, the federal government can release stores from the Strategic Petroleum Reserve.

- If the SPR is tapped, relief will not be immediate because it takes several weeks for SPR crude to move to refineries.
- Low-income households, interruptible natural gas customers and any electric customers experiencing blackouts who have difficulty purchasing or finding substitute fuels are likely to experience financial hardship.
- Motorists may have to queue to purchase gasoline or diesel fuel. Heating oil and propane dealers may deliver partial loads to their customers rather than top off tanks.
 - Low-income consumers burning heating oil or propane generally buy on an as-needed or "will call" basis. These customers are especially vulnerable because delivery firms will want to serve their contract customers before selling "will call." Some small retail companies that primarily serve will call may not have enough ready cash to buy sufficient oil or propane during a tight heating market.
- HSEM may wish to activate the state Emergency Operation Center during a moderate energy shortage and to activate similar centers in appropriate county and municipal jurisdictions. If the Governor declares an Energy Supply Emergency, HSEM will activate the EOC.

Shortage Level 4 - Severe Shortage

A loss of 20 to 30 percent and above in petroleum products, natural gas or electricity for an extended period is experienced. Interstate pipeline failure or production problems are experienced. Widespread extended electricity outages occur. If HSEM in coordination with the DOC and PUC deem it necessary, it will recommend that the Governor declare an Energy Supply Emergency as set out in Minnesota Rules, Chapter 7620.0210 (see Moderate Shortage above). Minnesota Rules 7620.0420 state specifically that a "Severe Shortage" occurs for petroleum when "the system is incapable of providing adequate supplies to all first priority consumers of motor fuel or diesel fuel." Unlike the declaration of an Alert, or the consideration of declaring an Emergency (when a three month supply shortfall is predicted), the conditions describing a "Severe Shortage" for petroleum leave little doubt about the status of the shortfall. Minn. Rules 7620.0420 also grants the Governor authority to curtail priority customers if necessary.

Figure 14 – Level 4 - Severe Shortage

Conditions (in addition to previous phase; one or more may apply)	Probable Impacts Observed	Media/Public Reaction
Regional and state energy service provision or fuel dislocation is brought on by large-scale storms; extended, widespread, winter cold; embargo or terrorist acts.	In peak driving seasons, gasoline stations curtail operating hours and motorists queue to purchase available fuel regardless of price. Lack of courtesy in queues may produce altercations.	Government may be criticized for not acting quickly enough. Public safety agencies may be called to protect motor gasoline outlets.
Retail energy prices do not level off but continue to rise.	During winter months, non- contract customers have serious difficulty locating heating oil regardless of price.	Fuel issues are reported regularly by the media; rumors are abundant. Media attention may turn from price to the extent of shortage. Accusations about price gouging are likely.
Local product storage is extremely low or exhausted.	Petroleum fuel hoarding is observed.	Officials from regulated and non- regulated energy companies are called upon to explain the shortage.
Retail motor fuel and heating oil dealers receive less than 75 percent of their normal contract allocation and have difficulty maintaining contract delivery.	Suppliers sharply reduce allocations to dealers and dealers cannot manage customer inquiries. Non-contract service stations may receive no allocation and will have extreme difficulty locating spot market motor fuel. This may lead to curtailing hours of operation or closing.	Some consumption is reduced as users turn to alternatives or go without. The public and media may misunderstand the reduction of hours or closure of noncontract service stations and assume that the region is "out of gas."
Shortages are generally regional in scope and possibly broader.	Government agencies are called on to provide relief. State governments may hasten efforts to coordinate interstate mitigation activity.	The public is willing to tolerate mandatory intervention measures such as odd/even gasoline purchase days. Citizens will respond to calls for voluntary conservation such as car-pooling or reliance on mass transit and may modify their consumption habits for the duration of the short fall.
Natural gas supplies fall significantly below normal.	Industrial and commercial customers curtail business hours or shut down for a period of time. Some residential customers are displaced from homes in cold weather.	Economic impact is noted. Media covers the issue daily. Commercial and government facilities may be shut down. Energy companies may be criticized by public authorities.
Long-term power problems due to fuel prices or lack of fuel, weather or infrastructure failure follow.	Rolling blackouts occur.	Media attention is constant. Economic impact is wide spread.
Low-income families require significant assistance to obtain fuel.	Economic dislocation occurs.	The danger to vulnerable citizens is featured in the media.

Expected Response Steps

- If the Governor declares an Energy Supply Emergency, HSEM will activate the EOC.
- DOC will continue to analyze energy supply and evaluate appropriate alternative courses of action including voluntary and mandatory measures beginning with the least restrictive measures specified in Minnesota Rules, Chapter 7620-0500 to 7620.0730.
- If MISO is unable to import sufficient regional electricity capacity (e.g., due to increased demand or a distribution system failure), area utilities will request government approval for mandatory and/or a schedule of conservation measures and/or rolling blackouts. Rolling blackouts, if instituted, would be scheduled, the public would be informed and may last for about two hours in affected geographic areas.
- Health care institutions may have to be prepared to switch to standby generators during rolling blackouts. Because many individuals using electric powered home medical devices may not secure backup, HSEM and DOC may wish to release seasonal advisories urging such users to inform their energy providers and perhaps to secure power backup or alternate sources of energy. State, county and municipal offices of aging, human services, social services and low-income heating programs should be prepared to receive multiple requests for assistance. Residential, commercial, industrial and government sectors can expect to be actively involved in energy conservation measures.
- Electricity customers should be asked to minimize electric use appropriate for the season. Consumers will also be asked to reduce hot water temperatures and use.
- Depending upon the estimated duration of an emergency, government may decide to reduce operating hours and suspend some activities until energy supplies are restored.
- Commercial and industrial users might also decide to limit operating hours.
 - Limiting hours of business operation could result in difficulties meeting customers, schedules and deadlines, which in turn may decrease revenue.
 Enterprises might be required to restrict their use of electric lighting for advertising, which could decrease business.
- Loss of electricity can lead to pump failure in water and sewage treatment facilities, loss of retail pumps for motor gasoline, loss of street lighting and stop lights, as well as communication devices, etc.
- If the shortage is due to a natural gas pipeline disruption, impacted consumers will lose service until the appropriate repairs are made and the LDC ignites pilot lights.
- Shut off distribution pipeline sections, remaining as sensitive as possible to the needs of critical facilities.
- If the disruption occurs during the winter heating months, governments may need to open heated shelters and take other measures to protect public health, welfare, and safety.
- The problems that began during a moderate shortage are likely to continue during a severe shortage.
- Motor vehicle drivers can expect rapidly increasing prices, queues and reduced retail hours.
- Mandatory measures may be imposed by government if increasing prices do not "clear the market" (i.e., bring demand into balance with supply). Mandatory measures may include odd/even motor fuel purchase rules, prohibition against vehicle tank topping or other measures designed to control queues and prevent dangerous situations at retail outlets.
- As shipping costs increase, the cost of goods and services follow.

- Financial hardship will extend to growing numbers of people.
- Taxi and mass transit fares may increase to cover the rising fuel costs.
- Tourism and discretionary shopping suffers.
- HSEM and DOC may:
 - Submit proposed executive actions to the Governor.
 - o Assist in the implementation of gubernatorial actions.
 - Notify neighboring state governments.
 - Coordinate activities with MISO, other state governments, the U.S. DOE and other agencies.
- Other state agencies may be required to:
 - Activate contingency measures.
 - Maintain close contact with HSEM EOC.
 - Assist with public information campaigns.
 - Assist with implementation of mandated actions.
- Energy providers may be required to:
 - Activate contingency measures.
 - o Maintain close contact with HSEM EOC
 - Submit information and reports to HSEM EOC.

Beyond Severe

Conditions may deteriorate to what can be called "beyond severe." The probable causes include war, concerted petroleum embargo, widespread natural disasters or other calamities that can initiate a long-term reduction in fuel availability. At this crisis level, all sectors suffer interruption in energy service and revenue. Beyond possible negative social behavior such as hoarding and gouging, and anticipated complaints to energy companies and government, long-term deprivation may become routine as consumers adjust. Health and safety issues are likely to be especially evident for vulnerable populations and such vulnerability may extend to the middle class.

Response to an Energy Supply Shortage

The Minnesota Energy Rules provide extensive guidance relating to energy emergency response. This section reflects Minnesota Energy Rules, 7620.0400 through 7620.0730. These rules cover three major response areas – priority users, voluntary and mandatory measures, and petroleum shortage response measures. Information is set in tabular form for easy reference and decision-making.

Priorities of Use

Table 16

Priority Uses of	of Fuel Oil 7620.0500			
Purpose : Reduce demand for petroleum products used for heating and power generation and				
	ensure that the necessary fuel requirements of higher priority consumers are met first.			
1 st Priority	Health and residential care service			
	2. Residential heating			
	Passenger transportation			
	4. Plant protection			
	5. Emergency vehicles			
	6. Telecommunications			
	7. Energy production			
	8. Agriculture			
	9. Sanitation services			
	10.Essential government services			
2 nd Priority	Purpose: Minimize economic disruption.			
	Cargo and Freight Hauling			
	2. Personal motor transportation (NOTE: diesel-powered automobiles are subject to provisions of 7620.0600 and .0730)			
3 rd Priority	Purpose: Uses not essential for immediate health and safety.			
	Schools and religious institutions			
	2. Government, except per #10 above			
	Commerce, except for items noted above			
	4. Industry, except for items noted above			
Caveats	Suppliers may be "requested" to deliver fuel in accordance with the priority list			
	2. Vehicles transporting agricultural products must display "first priority user" on their bills of lading or must be visibly transporting such cargo			
	3. Fuel oil users may apply to the state Set-Aside if it is implemented			

Table 17

Priority Uses of	of Motor Fuel 7620.0410
<u> </u>	ce demand for motor fuel (gasoline, diesel fuel or other petroleum products used as sure that the necessary fuel requirements of higher priority consumers are met first.
1 st Priority	1. Military vehicles
	2. Emergency vehicles
	3. Energy production
	4. Sanitation services
	5. Telecommunications
	6. Agriculture
	7. Passenger transportation
	8. Cargo, freight, and mail hauling including newspaper delivery
	9. Aviation ground support vehicles
Caveats	 First priority users may apply for the State Set-Aside if it is implemented and they shall receive preference in Set-Aside assignments Users may determine status in "good faith," but there are penalties for abuse
	3. If a motor fuel is used as a home heating fuel, and that fuel is short, fuel oil priorities listed in Table 12 apply

Voluntary and Mandatory Response Measures

Minnesota response measures may be divided into voluntary and mandatory measures. Most of the specific measures listed in the Minnesota Rules Chapter 7620 are written to conserve or reduce the consumption of petroleum products. However, some of the rules include natural gas and several imply that restrictions could apply to electricity as well. The rules, which were written several years ago, include some out-of-date federal references. In one case, the formula for a measure called the Energy Labor Ratio is defined differently within the same subpart. Another item requires the DOC to publish the Energy Labor Ratio on a biennial basis. These items are noted within the tables where they occur (and are color coded).

Following the description of space heating rules, Minnesota Rules Chapter 7620 specify 11 Motor Emergency Measures that also include a number of sub-measures. If necessary, many of these sub-measures can stand alone. In some instances, the Rules refer to actions that may be considered out-of-date due to changes in petroleum marketing practices.

Minnesota also authorizes a State Petroleum Set-Aside. The Set-Aside is the last measure discussed in this section. Even where parts of the Set-Aside or other measure are outdated, such actions may be valid if implemented with current industry practice in mind. Minn. Rules 7620.0540 authorizes the Governor to select which measures to use.

Voluntary Measures for Space and Water Heating Table 18

Voluntary Response Measures 7620.0510			
Purpose: Reduce	Purpose: Reduce demand for petroleum, electricity and natural gas energy resources.		
Homeowners and Renters	Request thermostat reduction to between 62° F and 66° F day and 58° F and 60° F evenings		
	Request setting back hot water temperature to between 105° F and 115° F		
	Exempted: Those whose health would be threatened will be warned NOT to comply (elderly, sick, infants).		
Conservation	NOTE: While these measures are aimed at petroleum use, they could apply		
Targets: - Commercial	to electricity and natural gas customers, "especially during periods of peak usage."		
GovernmentIndustrial	1. Request commercial and industrial facilities to reduce hours of operation where energy can be saved. Curtail interruptible electric and gas customers.		
Residential	2. If Set-Aside is initiated, request commercial and industrial users to release fuel oil from inventory for voluntary re-assignment in accordance with the priorities in Table 12		
	3. Request business, government and industry to close non-essential buildings		
	4. Use public information announcements to instruct energy users on best conservation practices and update the public on the status of the shortage		

Table 19

Mandatory Response Measures Non-Residential 7620.0520			
Purpose: Further reduce demand for petroleum energy resources.			
1. Comply with Federal Regulations	Commercial buildings will be ordered to comply with <i>the intent of*</i> Emergency Building Temperature Restrictions (EBTR), 10 CFR 490. NOTE: These restrictions were rescinded by President Reagan in Proclamation 4820 Recision of Emergency Building Temperature Restrictions, February 17, 1981. It is not clear whether this would prevent the state from requiring the use of EBTR goals for Minnesota commercial users.		
2. No Smoking; Reduced Ventilation	Smoking prohibited in buildings so that outside air exchange can be reduced NOTE: Minnesota has extensive anti-smoking legislation. The Minnesota Clean Indoor Air Act (MCIAA) was enacted in 1975 to protect public health by restricting smoking in public places and workplaces. On March 31, 2005, smoking bans went into effect in several cities and counties in the Twin Cities area: Ramsey County (including the City of St. Paul), Hennepin County, the City of Minneapolis, the City of Bloomington and the City of Golden Valley.		
3. Electric Utility Measures	Requires electric utilities with oil-fired facilities that are members of the Mid- Continent area Power Pool (now absorbed within MISO), to use fuel not suitable for homes or to close such facilities		
4. Slowed Deliveries of Fuel Oil	Prevents dealers from delivering oil to 1000 and larger gallon tanks until less than one week's supply remains		
5. Conservation of Residual Oil	Authorizes ten-day notification to commercial, industrial and government facilities using middle distillate, natural gas or propane, ordering them to switch to residual oil if their systems are capable of burning it		
	* italics added		

Table 20

Additional Mandatas	Additional Mandatana Daggarana Magazana fan Oassana Obartana - maga amag			
Additional Mandatory Response Measures for Severe Shortage 7620.0530				
Purpose : Further reduce demand for petroleum, electricity and by implication *where fuel oil is not				
specified, natural gas ene				
1. Owners /	Order reduction of heating to 62° F day and 50° F night or when unoccupied			
Operators of	Exemption: Minnesota Rules 5205.0110 subpart 3, requires indoor workrooms in			
Commercial,	general industry be maintained at a minimum temperature of 60° F where work of a			
industrial and	strenuous nature is performed and 65° F in all other workrooms, unless process requirements prohibit it.			
Government	requirements prombit it.			
Buildings				
2. Environmental	Authorizes emergency rules to suspend or relax environmental standards if			
Standards	significant fuel oil savings can be achieved			
3. Curtailment of				
Fuel Oil Deliveries	and government sectors			
i dei en benveries	a. An order to be signed by the Division Director of HSEM based on			
	industry's "energy labor ratio" (sum of natural gas and fuel oil consumption			
	Btu/year/employee)			
	Industries with the highest ratio to be curtailed first and recision of			
	order is to be done in reverse			
	b. Priority users per 7620.0400 are last to be curtailed			
	Exemption : A firm demonstrates that its energy labor ratio is significantly			
	below the industry average in its sector due to prior conservation or			
	conversion effort.			
	NOTE: This item defines the energy labor ratio differently than the previous			
	definition by adding the ratio of the local degree days to the statewide			
	average degree days of 8,400 using a 30 day average. c. The order of curtailment and energy labor ratio for industrial sector groups			
	and associated standard industrial classification codes is published by the			
	DOC in the State Register every October			
4. Closing Private	If the shortage is sufficiently severe, homeowners and renters may be			
Homes	requested to seek alternative shelter			
Homes	* Italics added			
	italios addod			

Various Measures for Motor Vehicle Management

The Rules for energy emergency management, Chapter 7620, include a specific measure for public information. The content of that measure is included in the general discussion on public information that follows this section. It is also useful for state emergency management, DOC and other officials to consult closely with energy providers regarding the initiation and management of these measures. Information contained in this Plan, pertaining to the nature of each energy sector, should be updated regularly so that changes in steps taken by industry are understood clearly. Before initiating measures that require industry action, emergency managers should take steps to prevent misunderstandings that might result in post-emergency accusations and fines from other government authorities who not familiar with the emergency process.

Table 21

Employer-Based Motor Fuel Conservation Measure 1 7620.0610			
Purpose: Further reduce demand for petroleum motor fuels.			
Target Population:	 Private sector employers with 100 or more at a site during a work day or 24-hour period Educational institutions with 200 or more commuting students and faculty State, county, municipal governments with 50 or more employees on site 		
Pre-emergency Planning Creation and	Defined employers are encouraged to develop a credible plan prior to any fuel emergency. DOC will furnish technical assistance. Plans may be submitted alone or in coordination with others so long as individual participants can be identified		
Submission of Employer Emergency Motor Fuel	Emergency Motor Fuel Conservation Plan Requirements:	Plan Credits	
Conservation Plan Consequences of failure to do so	Strategies must reduce baseline motor fuel consumption by 15 percent over calculated (and submitted) expected savings ¹⁷	Employers credited for travel reduction actions taken prior to plan submission that produced ongoing fuel savings	
	Plan must include at least 1 ridesharing measure and at least 4 total strategies	DOC may decline to certify plans that do not meet estimated savings	
	Plan is to begin when Governor orders	Other Required Information Identification of the specific ridesharing activities in the plan with actual and estimated number of participating employees Output Description:	
	Employers without approved plan will have 15 days to develop one	 Title of each person supervising a plan component Description of internal media to promote the proposed strategies In-house administrative assistance and resources provided to support the 	

Baseline consumption is a reasonable estimate of motor fuel consumed for a round trip commute. This may be based on one of the following:

Preceding 12 months

Most recent 3-year average

A 12-month rolling base

	Employers who fail to submit an approved plan in 15 days must include: Compressed work week with governor-selected day off except where: Exceptions: Certain industrial processes cannot be shut down Plant requires minimum level of attention and surveillance. Plant is otherwise exempt 18 strategies Schedule for implementing plan strategies If a driving ban is instituted, furnish the names of essential personnel (or contracting firm) performing plant protection	
Category 1 Ridesharing Strategies	1. Employee Carpool Program Can be developed as stand alone or with other local employers or groups Must be promoted inside the company Commuter ridesharing match capability must be furnished A rideshare coordinator will be identified and responsible Employee Van Pool Program Employer must provide vans (buy, lease, rent, make available) Or, demonstrate employee participation in nearby vanpools Maintain a 7 percent participation rate to qualify 3. Auxiliary Transportation Service May be a subscribed shuttle or bus service May include more than one employer Vehicles must carry a minimum of 20 people There must be a participation rate of 50 percent of those employees who live within a 3-mile radius of the work site Or the equivalent number and at least one commuter check point 5 miles from work site 4. Fuel Eligibility All properly identified ridesharing vehicles will be able to purchase fuel as priority vehicles under flag and odd-even programs if implemented	

Exemptions are:

Essential public or private services (health, law enforcement, emergency)

Agriculture
Energy Production
Telecommunications

Sanitation

Category 2	1. Parking Management		
Additional	 Provide preferential parking for high-occupancy vehicles in employer parking lots, or 		
Strategies	 Subsidize at least 20 percent of contract parking cost in non-employer facilities 		
All of some of the	2. Prohibit Use of Company-Owed Vehicles for Single Occupancy		
bullets indicated as part			
of the 15 percent	3. Purchase Alternate Fuel Vehicles		
reduction in fuel use	Electric vehicles		
	Hybrid electric vehicles		
	 NOTE: No other types are noted; however, authorities may wish to add E-85, all ethanol, natural gas and propane 		
	powered vehicles to the list.		
	4. Promote Transit Use		
	Direct sale of transit passes at work site		
	■ Fare subsidies		
	Display direct and commuting routes serving the work site		
	5. Promote Bicycling and Moped Riding		
	 Indoor and outdoor sheltered parking 		
	High security parking		
	Showers and dressing rooms for cyclists		
	6. Jitney Service		
	 Participate with an outside rideshare agency and provide service to persons requesting travel to a destination on or 		
	near the route taken for business purposes		
	 An employer-owned or employee-owned vehicle may be used 		
	7. Flexible or Staggered Work Hours		
	8. Energy Conscious Driver Education		
	Participate with independent bus or truck projects that offer instruction		
	 Education to include energy-conscious, fuel-economizing driving techniques plus maintenance and accessories 		
	information		
	 To use this measure, employer must have a minimum of 10 cargo or freight hauling vehicles 		
Announcement	The State EOC will publicly announce the implementation of any employer ridesharing program at least 10 days prior to		
	implementation		

Table 22

School Conservatio	n Measure 7620.0620	
Purpose: The purpose	of this measure is to reduce both student commuting and school-sponsored activities in order to conserve motor fuel.	
Target Population:	 Minnesota school districts Non-public schools with combined student/staff of 100 or more 	
Pre-emergency Planning Creation and Submission of Employer Emergency Motor Fuel Conservation Plan Consequences of failure to do so	Schools have two options: 1. School boards are requested to submit a "self-styled" emergency motor fuel plan to the DOC NOTE: Such plans were to have been completed by 1984 2. If no self-styled plan is on record, a set of pre-determined measures may be used (see Non-Self-Styled below)	
Self-Styled Emergence	y Motor Fuel Conservation Plan Requirements (Option A)	
Guidance for Self- Styled Plans	Strategies aim to reduce baseline motor fuel consumption by approximately 15 percent during a supply emergency. Participating schools are requested to calculate the baseline (see footnote 18, Table 21) Include expected motor fuel savings attributed to each selected strategy Include title of person designated to implement the plan Describe internal media used to promote programs Include an implementation schedule if using strategies 1, 2, 3 or 6 Voluntary Plan Credits School districts will be credited for travel reduction actions taken prior to plan submission that produced ongoing fuel savings	
	gency Motor Fuel Requirements (Option B) select three measures with at least one from two categories of measures	
Category 1 Parking and Certain Activities	1. Prohibit Most Student Parking Ask local authorities to enforce no-parking restrictions in area adjacent to school Exceptions: Students with no other means to reach school Students with special medical needs Students with job requirements outside of school hours Students in ridesharing program registered with a school coordinator 2. Postpone or Cancel Extracurricular Activities Until Termination of Emergency Period.	

	3. Cancel Two Days of Class for Each 30-Day Declared Emergency
Category 2 Additional Strategies	1. Sponsor Student/Staff Ridesharing Program May be included with community or local ridesharing program Promote through internal school media Designate a school ridesharing coordinator responsible for the program Preferential On-Site Parking for High Occupancy Vehicles Or, require fees for using student parking lots
	 3. Provide Indoor or Sheltered Bicycle Parking Provide for at least 5 percent of student body
	4. Set Up Driver Education Program NOTE: It is assumed that fuel conservation driving techniques would be included in such training
	 5. Cancel or Reschedule Some Extracurricular Activities Not to duplicate similar step in Category 1
	6. Participate in an Independently Sponsored School Bus Fuel Economy Program

Table 23

Odd-Even Purchase	Odd-Even Purchase Requirement Measure 7620.0630			
Purpose: Conserve motor fuel and encourage orderly purchase of motor fuel.				
Target Population:	Motoring public and non-priority users			
Managing Retail Sales of Motor Fuel	 Designated day restrictions to be imposed so that drivers with license plates ending in even numbers purchase fuel on even numbered days and those with odd ending number buy on odd days of the month Specialty plates not ending in a number are designated "odd" Restrictions would be abated on the 31st of a month or February 29 in a leap year 			
Exemptions	1. First priority users per 7620.0410			
	Vanpool vehicles or vehicles carrying a minimum of 8 passengers commuting to or from work			
	Ridesharing vehicles from employer-designated plans			
	4. Commercial vehicles per 7620.0100, subpart 9			
	5. Handicap-designated vehicles			
	6. Vehicles with out-of-state plates			
	7. Motorcycles and mopeds			
	8. Off-road vehicles			
	9. Auto dealer stock			
	 10. Retail dealer approved vehicles driven by individuals under emergency circumstances Dealer to take license number and obtain signature of such persons 			

Table 24

Minimum Purchase Requirement Measure 7620.0640				
Purpose: Decrease motor vehicle lines to ensure orderly purchase of motor fuel.				
Target Population:	Motoring public and non-priority users			
Managing Retail Sales of Motor Fuel	 1. Prohibits dispensation of less than 5 gallons of motor fuel into a motor vehicle A purchase of less than 5 gallons will be sold as if it were 5 gallons 			
	2. No more than 6 gallons may be dispensed into a container other than a vehicle fuel tank			
	3. Notice of these provisions to be displayed by the retail dealer			
	4. The burden of compliance falls on both retailer and vehicle operator			
Exemptions	1. First priority users per 7620.0410			
	2. For this provision, vanpools must display a vanpool designated or are vehicles carrying at least 8 passengers to and from work			
	3. Motorcycles, mopeds, similar three wheeled vehicles			
	4. Out-of-state licensed vehicles			
	5. Auto dealer stock			
	6. Retail dealer approved vehicles driven by individuals under emergency circumstances			
	 Dealer to take license number and obtain signature of such persons 			

Table 25

Flag Requirement M	leasure For Motor Fuel Retailers 7620.0650		
Purpose: Signal motoris	Purpose: Signal motorists about the availability of motor fuel.		
Target Population:	Motoring public and first priority service vehicles		
Managing Retail Sales of Motor Fuel	 1. A green flag indicates that motor fuel is available for sale No preference to be shown except for emergency vehicles 2. A yellow flag indicates that motor fuel is available only to first priority vehicles per 7620.0410 Also available to designated ridesharing vehicles 		
	 No priority is established among priority vehicles 3. A red flag indicates the service station is out of fuel or is closed Fuel may be dispensed to emergency vehicles if possible 4. Flags are to be not less than 2 feet by 2 feet in size and no larger than 3 feet by 3 feet 		
	5. Flags are to be posted so that they may be seen by passing motorists from at least 100 feet away		
	NOTE: This is a measure that. if considered, might be revised to take account of more up-to-date means of signaling than manually displayed flags.		

Table 26

Motor Fuel Availability Measure 7620.0660			
Purpose: To provide motor fuel at key locations throughout the entire 24 hour day.			
Target Population:	Motoring public and others		
Managing Retail Sales of Motor Fuel	Measure would be locally publicized		
	 2. If a State Petroleum Set-Aside is initiated, retailers who have: Historically remained open for 24 hours, and Provided emergency road service, May apply for state Set-Aside volumes assigned by proper authority 		
3. The EOC will publicize the location of such retail service stations			
	4. This information will also be supplied to the American Automobile Association of Minnesota and the state's tourist information center		
	NOTE: Consider including all state agencies that can publicize this information as well as web postings.		

Table 27

Strict Enforcement of Posed Highway Speed Limits 7620.0670			
Purpose: To provide m	otor fuel at key locations throughout the entire 24 hour day.		
Target Population:	Motoring public		
Managing Retail Sales of Motor Fuel	Highway speed limits are to be strictly enforced by state and local police		
	2. Violators may be subject to additional penalties with maximums of from \$500 up to \$10,000 in accordance with the provisions of 7620.0240		
	3. The Governor to request the assistance of state, county and municipal law enforcement		
	NOTE: Successful initiation of this measure requires close coordination and consultation with local law enforcement and may entail additional expenditures for overtime pay.		

Extreme Shortage Measures

The following three measures are intended for use if, during a declared energy supply emergency, the measures listed from "Public Relations" Minn. Rules 7620.0600, through "Strict Enforcement of the Speed Limit" 7620.0670, have not achieved the desired reduction in motor fuel consumption. DOC is responsible for conducting the analysis to determine such a shortfall. Results of the analysis would be communicated via HSEM through the EOC to the Governor who would make the final determination.

These measures involve extra sacrifice from the motoring public and would have economic repercussions. They would be taken in consultation with the Executive Council or the legislature and they would require informing and preparing the public to support them. As with other measures, it is advisable to work closely with the energy industry to avoid misunderstandings and to inform other state authorities who might seek legal redress later for actions that were necessary during the emergency.

Table 28

Vehicle Permit Stic	ker Measure 7620.0710		
	fuel by restricting motorists from driving 1 day a week.		
Target Population:	Motoring public		
Applicability	 This measure may be invoked if insufficient conservation has been achieved using Measures 7620.0600 through 7620.0670 ("Public Information" through "Strict Enforcement of the Speed Limit"). Motorists apply to the Department of Public Safety for a No-Driving-Day-Designation permit sticker Motorists may choose a Monday through Sunday as a No Driving day for all owned vehicles Minnesota licensed motor vehicles will prominently display sticker on the lower right hand front windshield during the term of this measure Vehicles rented or leased for 8 days or more are considered "owned" 		
	for the purpose of this measure Vehicles rented or leased for use predominately in Minnesota for 8 days or more must be registered by the lessee 6. All Minnesota vehicles subject to this measure will display sticker		
Exemptions	1. First priority users per 7620.0410		
	2. Auto dealer stock		
	3. Motorcycles and mopeds		
	 4. Short term rental vehicles Rental vehicle agencies must apply to the Division of Driver and Vehicle Services (DDVS) of the Division of Public Safety for exempt stickers for vehicles rented for 7 days or less 		
	 5. Such other vehicles as the Governor may designate The Governor may also waive the display of exempt permit stickers for any exempted vehicle 		
	 6. Exempted vehicle owners must apply to the DDVS for an exempt sticker Exempt stickers must be prominently displayed on the exempt vehicle 		

Table 29

Speed Limit Reduct	ion Measure 7620.0720		
Purpose: Conserve mo	tor fuel by reducing the maximum speed limit on state highways and roads.		
Target Population:	Motoring public		
Managing Speed Limits	The Governor may order the Commissioner of Transportation to reduce speed limits.		
	2. Violation of the maximum speed during the emergency carries the usual penalties for speed violation plus additional penalties with the maximum for such additional penalties from \$500 up to \$10,000 in accordance with the provisions of Minn. Rules 7620.0240		
	The Governor may request the assistance of state, county and municipal law enforcement		
	NOTE: Successful initiation of this measure requires close coordination and consultation with local law enforcement and may entail additional expenditures for overtime pay.		

Table 30

D'' D H D			
Driving Ban Measure Minn. Rules 7620.0730			
	fuel by prohibiting non-exempt motorists from driving for a 24-hour period.		
Target Population:	Motoring public		
Applicability	 1. Upon the Governor's order, the Division Director (HSEM) will issue the order and a statement to the media for prompt dissemination to the public The statement will state the designated day of the ban Enforcement actions will be listed including potential penalties for violation This statement must be released at least 5 days before the designated day ban takes effect The statement will make it clear that "It shall be unlawful for anyone to operate a Minnesota registered and licensed motor vehicle on public roads during the period of a driving ban" 		
	2. The EOC will remain open during the designated date of the ban		
Exemptions	1. Emergency vehicles		
	2. Sanitation services vehicles		
	3. Aviation ground support vehicles		
	4. Vehicles necessary for plant protection		
	 5. Vehicles used for providing or transporting Emergency medical care Residential care Telecommunications services Energy production News reporting 		
	6. Individuals requiring daily medical care		
7. Out-of-state licensed vehicles			
	 8. All exempt vehicles will prominently display a sticker or card identifying the exempt vehicle The Governor may waive this requirement 		
	9. Prior to the initiation of a driving ban, DOC will issue guidelines for identifying exempt vehicles		

State Petroleum Set-Aside

Minnesota statues, §216C.16 authorizes the creation of a State Set-Aside System for motor gasoline and middle distillates and Minnesota Rules Chapter 7615 describes those provisions. Another name typically used for such as system is Petroleum Fuel Set-Aside. A Petroleum Set-Aside allocates limited volumes of fuel to designated priority users in order to maintain vital services.

What Is the Purpose of the Set-Aside?

In the State Energy Emergency Guidelines, NASEO provided guidance to states for developing a Set-Aside program. Typically, a state Petroleum Fuel Set-Aside is a mandatory program designed to alleviate "hardship" experienced by designated petroleum customers based on the availability of refined petroleum products. A Set-Aside may be implemented when the amount of liquid petroleum fuels entering a state fails to meet demand for a sustained period. Such conditions are apparent when wholesaler-resellers (major, often national, suppliers) of petroleum commodities cannot obtain and resell sufficient product and supply must be rationed. Price is not an issue. The problem a Set-Aside is designed to correct is when price can no longer attract product for sale. All fuels delivered through the program are purchased at the market price and, ordinarily, through the priority customer's usual supplier(s).

Most Petroleum Set-Asides are designed to interfere with the petroleum market as little as possible. Set-Asides are not intended to control consumption, conserve fuel or reduce queues.

Many of the user priorities described in the Minnesota Rules are also contained within the voluntary and mandatory conservation measures. Hence, it is possible that state emergency managers could solve many of the distribution problems caused by a shortage without having to initiate the Set-Aside. Should conditions deteriorate to the point that fuel is in extremely short supply, Minnesota law requires the Commissioner of the Department of Commerce to determine and recommend to the Governor what, if any, strict conservation measures to initiate with or without a Set-Aside.

How Does the Minnesota Petroleum Set-Aside Work?

The Commissioner of the Department of Commerce is granted authority to establish and manage the Set-Aside. Table 31 describes how the Set-Aside is designed, but does not precisely explain how it is to be implemented. This Plan contains a prototype application form and a draft cover booklet in Appendix I.

Figure 15 contains a Set-Aside Preparation Check List. Note: some of the items listed in the Check List are also included in Table 31.

Figure 15

Set-Aside Preparation Check List

- Use electronic means to facilitate rapid and accurate communications among authorities, suppliers, hardship applicants and authorities.
- Assign a webmaster or similar position the responsibility of setting up a Set-Aside electronic and paper format no later than the onset of a Severe Shortage (Level 4).
- Set up the application and distribution process on an Internet web site in addition to paper applications distributed to local government authorities, libraries and other outlets.
- Use Internet applications to monitor and manage applications in real time. Add information from paper applications daily if possible but no less than weekly.
- Complete and deliver all reports electronically.
- Notwithstanding the use of electronic communications, the successful management of a Set-Aside requires extra telephone assistance. Begin the procurement process of setting up a telephone answering bank during the Severe Shortage phase.
 - o Given the nature of this measure, i.e., for hardship relief in a time of extreme stress, automatic telephone answering systems and, especially, voice recognition software, are not recommended.
- Hold meetings with DOC staff, enforcement authorities, local jurisdictions and petroleum suppliers to reach consensus on operating details in order to avoid confusion and delay if a Set-Aside is initiated.
- Ascertain that all program management personnel public and private understand how the system works, where product is obtained, how it flows and industry safeguards pertaining to its delivery.
- Ask the Attorney General's Office to participate in any discussion with more than one petroleum provider so that antitrust issues can be resolved at the beginning of the process.
- Ask petroleum industry representatives (i.e., the Minnesota Petroleum Dealers Association, the Minnesota Propane Gas Association and the Minnesota Service Station Association) to examine the hardship application form and work with DOC to make sure it responds to the most up-to-date industry practices.
- Make sure that all contact information is current.
- Prepare a budget for implementation and understand how the program will be funded.
- Prepare fact sheets and information material.
- Test allocation, receipt and notification systems (electronic and manual).
- Review and, in consultation with higher authorities as required, set procedures for disbursing unallocated product at the end of each month.
- Notify county and municipal governments of the need to appoint a Fuel Coordinator who
 must verify written applications. Coordinate with county and municipal officials to initiate
 this process (include verification of electronic applications if used).
- Review the appeals process.
- Set up the State Set-Aside Board of Appeals and meet with members to explain their responsibilities.
- Assure that Set-Aside duties are assigned to members of the agency staff and that both staff and management understand that that these duties will interfere with routine work.
- Provide for timely program review and on-going training.

Table 31

Petroleum Set-Aside Program 7615.0100 - 0350			
	ern the administration of the S	Set-Aside. Provide emergency relief for hardship caused by the shortage of refined products and	
Target Population:		 Motoring public Users of heating oil Users of other designated petroleum products The state petroleum industry 	
Applicability		Responsibilities	
	Prime Suppliers or any other supplier making the first sale of middle distillate or motor gasoline into Minnesota	1. Monthly Report Send to DOC, SEO by the 25 th of each month Report must include: O Actual volume of previous month sales Forecasted volume of next month sales O Data in this report is considered non-public data per Minnesota Statute 13.68 2. Fuels to be Covered in the Report Propane (not for chemical feedstock) Motor gasoline (total) Unleaded motor gasoline (NOTE: This is an out-of-date provision) Kerosene (primarily for space heating) Number 1 Distillate (special use) Number 2 Distillate (heating oil) Diesel fuel (Highway use) Aviation gasoline Kerosene base jet fuel (e.g., JP 5) Naphtha base jet fuel Number 4 distillate (commercial and industrial use) Residual fuel (sulfur content equal to or less than 1 percent) Residual fuel (sulfur content greater than 1 percent) Residual fuel (sulfur content greater than 1 percent) Report form to be approved by DOC, State Energy Office This is ordinarily, the EIA 782C form promulgated by the U.S. Department of Energy 4. Prime Supplier's Representative Report name, address, and telephone to the SEO NOTE: SEO should request E-mail contact also Confirm monthly volumes for determining Set-Aside amount Accept and process state Set-Aside orders	

Hardship Applicants Applicants are supplied middle distillate or motor gasoline directly DOC – State Energy Office	 1. Three Types of Consumers: a. Wholesale Purchaser Consumer who purchases in bulk (truck transport volume for own use) b. End-User who purchases for own use without regard to volume c. Wholesale Purchaser Reseller who buys to resell to others Applicant must arrange for receipt of Set-Aside product within 10 days of receiving approval 2. Format of Application Rules require application in writing on approved forms NOTE: Inclusion of an approved electronic application is recommended. These might also include electronic signature provisions. Rules require verification and signature of a Fuel Coordinator, a city or county-appointed person who verifies the application NOTE: See above re: electronic signatures. Oral applications may be made when extraordinary circumstances make it impossible for applicant to submit a written application. A written application must follow the oral presentation within 5 days. Failure to do this gives the SEO the right to deny future applications. NOTE: Authorities may wish to reevaluate the entire written application process in light of computer and other electronic communication innovations since the Rules were written. 3. Content of Application Applicants must specify the number of gallons requested. Wholesalers must do this for each end user category State the need for assigned volume over the amount allocated by the Prime Supplier Complete such other identification and information as required in the application form 1. Issue Application Material NOTE: The following are not included in the Rules but are necessary for implementation: Develop and disseminate application forms Provide public information materials Update and maintain industry and other contracts
	Provide program staff Page and to public inquire.
	 Respond to public inquiry

2. Applications Process

- Analyze and respond based on set criteria (see below)
- Seek additional information as needed
 - Process such application within 5 working days of acceptable receipt (i.e., upon 1st review or after receiving requested additional information
- Investigate statements made on an application as needed
- Approve or deny the application
 - o Notify denied applicant in writing, stating reason, upon denial
- Process within 5 working days of receipt, applications from:
 - Wholesale Purchaser Consumers
 - Wholesale Purchaser Resellers who apply on behalf of wholesale purchaser customers or end-users
- Process applications from, or on behalf of, retail outlets within 5 working days after the 15th of the month

3. Implementation

- Upon approval, issue orders authorizing fuel assignment to Prime Supplier serving the applicant.
- Order is effective when signed by the Commissioner of DOC or designee unless stayed, modified, suspended or denied
 - NOTE: There is no reason to assume that this provision excludes electronic signatures
- An order is a call upon the Prime Supplier even if delivery cannot be made until the following month

4. Appeals

- Any person aggrieved may appeal in writing to the Commissioner within 10 days of an order or denial
- The appeal will contain:
 - o Reason for the appeal and why the decision was "unwise or unjust."
 - Names, addresses and telephone numbers of any persons who may be injured by the order or denial
 - Objective of the appeal (e.g., reversal of the order or denial, modification, or other remedy)
- Commissioner must within 5 days of receipt:
 - o Set a hearing date at least 10 days after initiation of an appeal
 - Serve all interested parties with a copy of the appeal and notice of time and place of hearing
 - Issue a stay of the order if serious injury appears probable and order complies with applicable statute (e.g., § 216C.16)

		 5. State Set-Aside Board of Appeals Composition consists of Commissioners and Director or designee for: DOC, Department of Agriculture, HSEM and Chairperson of PUC The Commissioner plus two others comprise a quorum Mutually acceptable settlements may be concluded at any time during the proceedings 6. Hearings. Hearings are to be governed by Rules of Evidence, Inclusion on the Public Record, must contain a Verbatim Record, and follow Hearing Procedure and Decorum Decisions, fully explained, shall be issued within 5 days after the end of a hearing Detailed provision of this section may be found in 7615.0350
Evaluation Criteria	Middle Distillate	 1. Amount The Set-Aside volume is equal to 4 percent of that estimated to be received by all prime suppliers 2. First Priority Agriculture Emergency Services (health, safety, Natural Guard, Red Cross) and Essential Services (energy production, government services, telecommunications vehicles, postal service, sanitation, cargo and freight hauling) Heating customers with no alternative source of fuel including hospitals, multi-unit buildings, nursing homes, and residences Major industrial and commercial activities whose operation is essential to economic well being including auto manufacturing and mining Minimum plant and building protection Passenger transportation 3. Second Priority Heating with interruptible natural gas or other primary source of fuel including hospitals, nursing homes, and residences 4. Third Priority Heating in government buildings, industrial and commercial activities not included above and schools 5. Cross Reference These priorities cross reference with Minnesota Rules 7620.0400. Priorities in that section are basically the same; however, they prevail if an energy supply fuel oil emergency is declared

Motor Gasoline	Motor Gasoline	 1. Volume The Set-Aside volume is equal to 3 percent of that estimated to be received by all prime suppliers 2. Agricultural Motor Gasoline Shortfall All previous application requirements apply plus reseller applicant must specify average motor gasoline use of the ultimate consumer and list the name and telephone number of that consumer If extreme weather necessitates higher volumes, the applicant must provide current monthly requirement and justification for increased volume 3. Local Area Market Loses One or More Current Supplier(s) A wholesaler purchaser reseller may apply to dispense the lost volume of fuel Application must include approximate gallons/month sold by previous supplier 4. Community Market Loses One or More Current Supplier(s) Applicant must certify that residents would need to drive 20 or more miles round trip between the hours of 7:00 AM and 8:00 PM to buy fuel Applicant must provide SEO with name, address and approximate gallons/month sold from all retail outlets that opened or closed in last calendar year within a 10 mile radius of retail outlet desiring Set-Aside assignment
		 5. Emergency Road Service Retail Outlet Set-Aside fuel may be assigned to a retail outlet that has historically operated 24 hours/day and provides emergency road services
		 6. Natural Disasters Set-Aside assignments may be made to alleviate a motor fuel shortage due to flood, blizzard, fire, high winds, and tornadoes Applicants must state nature of disaster and number of gallons sold and to whom
		 7. Priority Vehicles Applicants may apply to make up the difference between 100 percent of contract volume and the amount available at time of application for priority vehicles such as emergency services, essential services and passenger transportation

Public Information

The Minnesota Division of Homeland Security and Emergency Management, generally provides public information during an emergency through the Emergency Operations Center. The EOC also coordinates emergency and recovery-related information for all responding state and local agencies. The Governor's office may also wish to be actively involved through both oversight and participation (e.g., gubernatorial announcements and appearances) in providing information to the public. The Commissioner of the Department of Commerce, the Deputy Commissioner, and the Director of the State Energy Office also may be called upon to back up or substitute in providing information to the public.

Functions

During an energy shortage, it is vital that the public be provided with accurate and timely information on the extent and expected duration of the shortage. This includes mitigation steps taken by state and local government, business and industry as well as what individual actions should be taken by consumers to reduce energy consumption. Coordinated messages and the timely dissemination of information will help dispel rumors and hearsay, minimize confusion, and boost public support and confidence. Information is also an effective tool for reducing panic stockpiling of consumable energy resources, especially gasoline and heating oil.

While the public information officer attached to HSEM is the primary communicator, it is common during energy emergencies for such PIOs to ask that departmental experts respond directly to media inquiries. It is advisable for DOC to work out a protocol for how they should handle inquiries made directly to them. One way to handle this is to designate DOC experts for fielding technical inquiries and providing print and on-camera explanations of energy market activity.

If a shortage is serious enough to require activation of the EOC, several layers of government may receive inquiries from media. State emergency rules set protocols for in-state information management and these should be reviewed. Coordination among regional entities, neighboring states and federal authorities is highly desirable. Groups exchanging information may include federal agencies, HSEM, DOC, PUC, MISO, utilities, LDCs, petroleum companies, citizens' groups and representatives from industries associated with energy providers.

During an energy emergency in Minnesota, the flow of information is facilitated among the key players by the HSEM Information Center that acts as the clearinghouse for data and information gathering. State agencies, major employers, news media and affected energy providers will be requested to designate liaison contacts and to provide updated information and data to HSEM for dissemination to other stakeholders.

Public Information Campaign

Typically, energy emergency public information campaigns seek to explain the nature of the problem, reducing the tendency for panic. In addition, public information may

encourage appropriate responses such as implementing conservation measures. Public information includes seeking the support of local governments, business and residential groups. Public information is essential for implementing voluntary demand restraint measures. A wide public information effort should reach as many energy users as possible. Such campaigns are intended to facilitate public participation and cooperation in order to maintain mobility and to minimize the inconveniences caused by limited energy supplies and escalating prices.

Some topics that may be included in an educational information campaign are:

- 1. How to increase fuel efficiency of automobiles,
- 2. Alternatives to single-occupant automobile travel including:
 - a. public transit,
 - b. ridesharing,
 - c. compressed work week,
 - d. telecommuting,
- 3. Tips for conserving home and office heating or cooling,
- 4. Ideas for managing appliances and lighting,
- 5. Energy supply availability and pricing, and
- 6. The outlook for near and long-term fuel availability.

Operational Considerations

Accuracy – Regularly scheduled meetings may be held under the auspices of HSEM to update member jurisdictions, the energy providers, and other key energy players about the status of the shortage. These meetings may be held prior to issuing press releases and can be used to develop a coordinated message for the public.

Press Kits – HSEM can coordinate the sharing of press kits and other materials among jurisdictions. HSEM can provide special assistance by seeing that such information is widely disseminated. Such kits may include handouts for press conferences, written statements for broadcasts, background and statistical data. Disseminating information in written as well as verbal form provides additional documentation to help avoid confusion. This information can also be made available to the public via the HSEM and jurisdictional websites.

Complexity and Simplicity – It is extremely important not to rush to conclusions about the causes of an energy emergency. The energy market is extremely complex, and many factors may contribute to the onset and continuation of an emergency. Media reporters asking questions are under pressure to obtain information quickly and to simplify it for publication or broadcast. Oversimplification of a complex situation may adversely influence public opinion and establish unrealistic expectations. Therefore, conclusions provided to the media should be carefully analyzed and worded to ensure accuracy. Coordination by the state among member jurisdictions will help assure that useful information is presented with maximum clarity.

Experts – HSEM or the DOC may wish to tap other stakeholders as appropriate to gather and disseminate information. Key public policy makers may also contribute by answering

substantive questions. Private associations for each major energy source may speak on behalf of their industry and provide additional information for managing shortage.

Informing the Public – It is imperative to provide frequent, concise, accurate, consistent and informative updates to the public. Providing such information builds vital public support without which emergency management becomes very difficult to sustain.

APPENDICES

Appendix I - Prototype Petroleum Set-Aside Application Form and Instructions

Prototype Application Form
Petroleum Fuel Set-Aside Hardship Application Form *Minnesota*

APPLICANT and DISTRIBUTOR INFORMATION

Applicant name: Tax ID Number: Month/Year of this Application:

		20
Contact person: Telephone No.: FAX No.: E-mail:		
Mailing Address: (Street, City/Town, ZIP) County:		
Delivery Address if different from above: Special co	onditions at delivery addre	ess if any:
Name of Usual (Normal) Retail Distributor: Distribu	tor (retailer) Contact Perso	on:
Distributor Address: (Street, City/Town, ZIP) Distributor		E-mail:
Distributor's Primary Source of Fuel (Wholesaler-Re		
Name: Addi	•	
Contact Person and Contact Numbers If Available:		
Tel	e: FAX:	E-mail:
FUEL INFORMATION		
Priority Category (check one):		
First Priority		
Agriculture (excluding non-food producing	g activities)	
Emergency Services		
Essential Services		
Heating Customers with no alternate source	ce of fuel	
Hospitals		
Multiunit Housing		
Nursing Homes		
Residences		= .
Major Industrial & Commercial Activities E		: well-Being
Including automobile manufacturi	ng and mining	
Minimum Plant & Building Protection		
Passenger Transportation		
Second Priority Interruptible Customers of Natural Gas or	Other Brimery Fuel with Co	anability of Using Hosting Oi
Includes hospitals, multiunit hous		
Third Priority	ing, nursing nomes and re	siderices
Government Buildings		
Industrial & Commercial Activities Not Incl	luded Above	
Also, Minnesota Rules 7620.0400 if so dec		
7 1100, 11111111000111 111100 11 00	Propane	
Amount of Fuel Needed:	· · · · · · · ·	
gallons		
Type of Fuel You Use (check one):		
	#4 Distillate	
Gasoline	Aviation Gasoline	•
Diesel Fuel	Kerosene	
#1 Distillate	Jet Fuel (type)	
#2 Heating Fuel	Other	

Percentage of Total Fuel Required and Available	from Other Sources	
JUSTIFICATION AND CERTIFICATION Describe The Hardship Or Emergency:		
Identify with detailed information those who may		s allocation is not made:
Describe any special conditions pertaining to thi	is application:	
Certification I declare under penalty of perjury that all information knowledge true and correct. I also declare that I have to obtain essential fuel at any price. I further declare delivered to the above applicant within the State of Mardship described above.	ve made a good faith attempt that if any or all of the fuel re	to obtain fuel and have been unable equested is granted, it will be
Signature (seal):	today's Date:low-up signature by post or hand	,20delivery unless the SEO has specifically
pproval ignature (seal)		

Minnesota Statutes 2005, § 216C and Minnesota Rules 7615 Department of Commerce

PETROLEUM FUELS SET ASIDE PROGRAM

Prototype Handbook

APPLICANT HANDBOOK

REQUEST FOR HARDSHIP FUELS ALLOCATION

Minnesota
Department of
Commerce,
Glenn Wilson, Commissioner
State Energy Office
Janet Streff
Director

Jeffrey Haase Energy & Policy Coordinator Fuel Allocations Manager Date:

TABLE OF CONTENTS

Minnesota Statutes 2005 § 216C authorizes the Minnesota Department of Commerce as the agency responsible to administer the Petroleum Fuels Set-Aside Program. This program allocates petroleum fuels to eligible customers (end-users)

and others to help resolve hardships during a proclaimed energy emergency.

The Commissioner shall establish and is responsible for a state Set-Aside system for motor gasoline and middle distillates to provide emergency petroleum requirements and thereby relieved the hardship caused by shortage, supply dislocations, or other emergencies.

PURPOSE OF THE PROGRAM

The Minnesota Set-Aside Program is to help mitigate regional shortages and hardships for users who are unable to acquire essential volumes of fuel at any price.

The program is designed to cause only minimal interference with the market, using a percentage of imported volumes that are sufficient only to satisfy hardship and emergency cases. The program does not attempt to reduce or inhibit the market price of fuels. All fuel delivered through the program will be purchased at the market price, and whenever possible, through the applicant's usual supplier.

PURPOSE OF THIS HANDBOOK

This handbook provides a description of the application process for allocating fuel supplies in the event of an energy shortage. The handbook explains the purpose of the Set-Aside Program, the eligibility requirements for each program category, how the application process works, instructions for completing the application form, audit procedures to discourage or detect fraud, and procedures for appeal if the application is denied.

STRUCTURE OF THE PROGRAM

The specific management of the Set-Aside Program is located in the Department of Commerce, State Energy Office and is the responsibility of the Director. It is administered the Fuel Allocation Manager.

To achieve maximum flexibility in the Set-Aside Program, the individual categories within the program are implemented only as directed in accordance with Minnesota Rules Chapter 7615 and the State Department of Commerce, State Energy Office with major responsibility for contingency planning.

The Set-Aside Program ends when the Governor rescinds the emergency proclamation or chooses to terminate the program.

AUDIT PROCESS

Provisions exist for auditing or investigating applications to discourage and prosecute those who would abuse the Set-Aside Program. The audit is intended to prevent misrepresentation of facts, use of the fuel for a purpose other than as stated, or resale of the fuel. The State Energy Office is responsible for identifying suspected fraud. The Office of the State Attorney General is responsible for conducting the investigation. Three criteria are used to select the applications to audit:

☐ Suspicion of Abuse☐ Public Complaint

☐ Random Selection

Suspicion of Abuse: Applications are entered into a database to screen for discrepancies and possible abuse.

Public Complaint: If the State Energy Office receives a public complaint, particularly if accompanied by a written report, the application will be reviewed for possible investigation.

Random Selection: At the discretion of the Fuel Allocation Manager, applications may be randomly selected for audit.

It is a misdemeanor to violate the statutes and rules concerning the Set-Aside program or to knowingly or willfully submit false information required under these rules. Civil remedies are also available.

APPLICATION PROCEDURES

Read this section carefully, if you think you may be eligible for fuel supplies from the Set-Aside Program. It contains step-by step instructions you will need to follow in order to complete the application form. If you need technical assistance in filing the application, you should contact the State Energy Office at 651-297-2545. Questions may be directed to ______.

IMPORTANT

Fuel will be allocated on a month-by-month basis. Therefore, you must file a Hardship Application Form at the beginning of each month that you require an emergency allocation. You must also complete a separate application for each type of fuel you require (i.e., gasoline, diesel, etc.).

The application process is as follows:

☐ Determine Your Eligibi	lit
☐ Complete the Form	

File the Application
Receive Approval
Purchase the Fuel

DETERMINE YOUR ELIGIBILITY

The first step in the application process is to determine your eligibility for the program.

Priority Categories

The program allows users who provide emergency, health, safety, or essential services to receive fuel during a crisis and other categories as listed on the Application Form. You are eligible to apply within these categories if you are a provider of such services and are unable to obtain sufficient fuel supplies in the open market.

☐ You may be eligible to apply within these categories, if you are an individual, association, retailer, or governmental agency in a community, which is experiencing a fuel emergency or hardship, or is receiving less than 80 percent of the contract allocation fraction.

In certain cases, where the priority recipient is served by a commercial retail service stations, the service station may be designed to receive fuels for a fuel set-aside allocation (e.g., properly identified heath care professionals associated with a hospital). When filling out the Hardship Application Form you must include a description of the arrangement that pertains to designated professionals and the retail service station supplying fuel to these professionals.

COMPLETE THE FORM

Following are the instructions for filling out the form needed when applying for emergency fuel. The form called the Hardship Application Form is located in the back of this handbook.

APPLICATION SECTION

_ **Applicant Name**: The name of your firm, or if not a business, enter other appropriate name.

- _ Tax ID Number: The tax identification number used for filing with the Internal Revenue Service for the requesting firm. If requesting fuel as an individual, enter your social security number.
- _ Contact Person: The name of the person who should be contacted for further information.
- _ Telephone Number: The area code and telephone number of the contact person.
- _ Mailing Address: Mailing address for applicant (including the county).

- **_ FAX Number:** The fax number of the contact person.
- _ **E-mail Address:** The applicant's E-mail address if the applicant has such an address.
- _ **Delivery Address:** Delivery address for requested fuel (if different from mailing address).
- _ **Distributor**: Enter the name of your local distributor, jobber, or consignee's firm. Enter the oil company's name, if you do not normally receive fuel through a local distributor, jobbers, or consignee but instead receive fuel directly from an oil company.
- _ **Distributor's Contact Person:** Enter the name of the person you normally contact to place a fuel order.
- _ **Distributor's Phone Number:** Enter the area code and telephone number (i.e., including mobile, pager and e-mail if known) for the contact person.
- _ **Distributor's Address:** Enter the distributor's mailing address.

_ Distributor's Primary Source of Fuel:

Provide the name of your distributor's main source of fuel, the oil company for your distributor. Include address and other contact information if available to you. Describe/indicate any special requirements pertaining to delivery.

_ Month and Year Applied for: The month and year for which you are requesting emergency fuel allocation.

FUEL INFORMATION

- _ **Program Category:** Check only one program category, depending on your situation. See the previous section entitled," Determine Your Eligibility" for a detailed description.
- _ Fuel Use Category: Check one category, which best describes the activity for which the fuel is to be used. Figure 1 contains examples, which illustrate some possible activities for each category. However, the categories are not limited to these examples.
- _ Amount of Fuel Applied for: Refers to the amount of fuel you are requesting for emergency allocation (in gallons). This number should not include fuel you are able to obtain from other sources.
- _ **Fuel Type:** Check only one type of fuel for each request. A *separate application* must be filed for each type of fuel.
- _ Percentage of Total Fuel Requirements: Divide the amount of emergency fuel you are requesting by your total fuel requirements (please round off to a whole number). For example, if you require a total of 10,000 gallons per month to operate, and you can acquire 3,000 gallons elsewhere, you therefore need 7,000 gallons for

emergency allocation; your percentage would be 70 percent (7,000 divided by 10,000).

JUSTIFICATION AND CERTIFICATION _ Describe the Hardship or Emergency:

Describe the circumstances and situations relating to your hardship or emergency. Also, describe your efforts to obtain fuel from other sources (you may attach additional sheets if

necessary). Emergency Service category applicants are not required to complete this section.

_ Sign and Date: Read the certification statement before signing. This signature is a legal contract between you and the State of Minnesota. The contact ends when you have purchased and used the allocated fuel within the terms of the Set-Aside Program.

FIGURE 1

EXAMPLES for DETERMINING FUEL USE CATEGORIES

Examples are:

- Agriculture Agricultural Production (including Agricultural Trucking and Agricultural Aviation)
- Aviation Commercial Aviation for Passengers and Cargo (other than agricultural)
- Aviation Ground Support
- Vehicles and Equipment
- Cargo, Freight, Mail Cargo, Freight and Mail Hauling by Truck (including Diesel Truck Stations)
- Emergency Services Police, Fire, Ambulance, Dispatch Services
- Emergency Shelters
- Energy Production Includes Diesel Fuel for Electric Generating Systems and Back-Up
- Government/Sanitation Critical Maintenance Activities such as Sanitation
- Snow Removal, Highway Clean-Up, Dam Repair
- Health Care Services Hospitals, Clinics, Nursing Homes
- Marine Transportation Non-Military Cargo, Passenger and Fishing Vessels
- Public Passenger Services
- School Buses
- Regional Transit Systems, Taxis,
- Commercial Bus Lines
- Telecommunications Telephonic, telegraphic and Internet service and repair
- Utility Services Electricity, Natural Gas, Water
- Other Requires justification that will be reviewed by the Fuels Allocation Manager

FILE THE APPLICATION

Make sure all sections of the application are completed or are marked "not applicable" and that you sign the application. An unsigned application is not considered a legal document (if submitted through FAX or through postal mail), and fuel will not be allocated without a signature. Submission by electronic means requires the posting of the applicant's signature within __ business days. At the discretion of the State Energy Office, provisions for accepting electronic signatures may be instituted.

All application forms must be mailed, faxed, or submitted online to:

Minnesota Department of Commerce State Energy Office Fuels Allocation Desk 85 7th Place East, Suite 200 St. Paul, MN 55101-2198 Website: www.commerce.state.mn.us

IMPORTANT

Sign and date the application. An unsigned application is not considered a legal document and fuel cannot be allocated without a signature. If your application is incomplete or unsigned, it may be returned to you for completion. Applications filed electronically will require a hand-signed original to be mailed or faxed within __ business days of the original electronic submission.

RECEIPT OF APPROVAL (or denial)

The State Energy Office will send you a letter notifying you whether your application has been approved or denied. You may receive approval for emergency fuel but not for the full amount requested.

PURCHASE THE FUEL

You must deliver the letter received from the State to your distributor (or retailer) to obtain your fuel. In addition, you must make your own arrangements with the supplier for delivery and payment. The State of Minnesota makes no guarantee for payment nor acts as surety for payment. If your application was denied (or only partially approved), you may appeal the decision. The appeal procedures are located in the section entitled, "Appeal Process."

END OF MONTH RELEASE

At the end of any month during which the Petroleum Fuel Set-Aside is in operation, the State Energy Office **may** release unused Set-Aside volumes for distribution to the public through specified retail service stations on a rotating or other designed basis including an allocation state-wide.

APPEAL PROCESS

If the State Energy Office denies your application or grants less fuel than requested, you may file a written appeal within 10 days to the State Set-Aside Appeals Board (use application submission address and address appeal to the State Set-Aside Appeals Board):

In an appeal, you must fully explain your objection to the decision and why your particular situation constitutes a hardship or emergency, the names and addresses of any persons whom you believed will be harmed and what specific remedy you seek (e.g. reversal of order, substitute number of gallons or other remedy). The Appeals Board will review your appeal. The Board will set an appeal hearing within 5 days of receipt of the appeal for a hearing to take place no later than 10 working days after initiation of the appeal.

The Board may supply a remedy or continue the hearing. At the end of the Hearing day, the Commissioner will serve a copy of the decision on the parties to the hearing.

Appendix II - Recent Energy Data from EIA

The natural gas and transportation fuel data below is more current than that used in the Vulnerability Analysis. However, it is not converted into Btu for cross energy source comparison. This type of data analysis is no longer readily available on the most recent EIA web site. It is noted in this Appendix for additional information purposes only.

Natural Gas

0,	ion Administratio					Page 1
Natural Gas Pr	oduction & Use	-	Million Cubic Fast	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
		•	Million Cubic Feet			
		able in this format				
2005	Marketed Production	Use by All Consumers	Use by Residential	Use by Commercial	Use by Industrial	Use by Electric Power
July	NA	NA	2,756	3,394	6,339	NA
June	NA	17,930	3,563	4,296	6,328	3,744
May	NA	17,810	6,616	4,486	5,773	935
April	NA	22,867	7,293	6,989	6,531	2,054
March	NA	38,689	17,311	12,578	7,709	1,091
February	NA	41,685	18,615	13,696	8,371	1,003
January	NA	56,371	26,535	18,603	9,881	1,351
2005 Total	NA	NA	NA	NA	NA	NA
2004	Marketed Production	Use by All Consumers	Use by Residential	Use by Commercial	Use by Industrial	Use by Electric Power
December	NA	46,183	21,753	13,913	9,507	1,010
November	NA	31,411	12,411	8,626	9,580	795
October	NA	22,219	7,254	6,513	7,655	797
September	NA	14,594	2,948	2,505	7,407	1,734
August	NA	13,734	3,240	3,060	6,644	790
July	NA	14,491	2,626	2,873	7,060	1,932
June	NA	15,230	3,478	3,094	7,664	993
May	NA	17,711	5,650	4,109	6,617	1,335
April	NA	24,873	8,961	6,959	7,807	1,146
March	NA	36,988	15,767	11,447	8,642	1,133
February	NA	45,959	20,754	14,791	8,959	1,455
January	NA	58,126	27,521	18,688	9,756	2,160
2004 Total	NA	341,518	132,363	96,579	97,297	15,279
2003	Marketed Production	Use by All Consumers	Use by Residential	Use by Commercial	Use by Industrial	Use by Electric Power
December	NA	46,332	20,784	14,576	9,703	1,269
November	NA	35,945	15,373	9,741	9,271	1,560
October	NA	22,649	6,986	5,728	8,202	1,734
September	NA	14,570	3,313	3,476	6,284	W
August	NA	15,594	2,695	2,318	6,769	3,812
July	NA	14,981	2,699	3,486	6,575	2,220
June	NA	12,708	2,815	2,562	6,487	844
May	NA	18,135	5,537	5,316	6,802	481

April	NA	26,415	10,118	7,958	7,310	1,029
March	NA	39,189	18,073	12,370	8,206	540
February	NA	50,612	23,767	16,340	9,625	881
January	NA	53,794	25,795	17,576	9,539	885
2003 Total	NA	351,009	137,953	101,446	94,772	16,752
2002	Marketed Production	Use by All Consumers	Use by Residential	Use by Commercial	Use by Industrial	Use by Electric Power
December	NA	45,054	20,438	14,311	9,675	629
November	NA	37,214	16,032	11,035	9,542	605
October	NA	27,484	10,215	7,905	8,535	830
September	NA	14,862	3,336	3,845	6,376	1,304
August	NA	15,077	2,575	3,481	7,494	1,526
July	NA	15,388	3,018	3,368	6,011	2,991
June	NA	14,684	3,497	3,445	6,431	1,310
May	NA	21,749	7,887	6,213	7,001	648
April	NA	28,680	10,958	9,410	7,661	652
March	NA	44,505	19,626	14,535	9,188	1,155
February	NA	38,565	16,921	12,438	8,391	815
January	NA	45,190	20,708	14,400	9,366	715
2002 Total	NA	348,523	135,213	104,387	95,671	13,181
2001	Marketed Production	Use by All Consumers	Use by Residential	Use by Commercial	Use by Industrial	Use by Electric Power
December	NA	38,517	17,820	12,297	7,858	543
November	NA	25,778	9,708	6,546	9,056	469
October	NA	22,582	7,587	6,185	7,945	866
September	NA	14,705	3,217	3,048	7,926	513
August	NA	14,855	2,643	3,002	7,183	2,026
July	NA	13,674	2,723	2,807	6,202	1,941
June	NA	13,524	3,477	3,210	6,046	791
May	NA	15,943	4,821	4,204	6,052	866
April	NA	25,541	9,542	7,534	7,676	788
March	NA	40,209	17,575	13,183	8,841	611
February	NA	47,192	22,623	15,361	8,557	650
January	NA	49,278	23,155	16,467	9,110	545
2001 Total	NA	321,798	124,891	93,844	92,452	10,610
2000	Marketed Production	Use by All Consumers	Use by Residential	Use by Commercial	Use by Industrial	Use by Electric Power
December	NA	43,708	26,803	16,905	NA	NA
November	NA	25,445	14,875	10,570	NA	NA
October	NA	11,231	6,156	5,075	NA	NA
September	NA	6,506	3,260	3,246	NA	NA
August	NA	5,816	2,762	3,053	NA	NA
July	NA	5,830	2,866	2,964	NA	NA
June	NA	6,312	3,358	2,954	NA	NA
	NA	8,979	4,924	4,054	NA	NA
May	14/3		+	7.500	NA	NA
May April	NA	17,248	9,668	7,580	INA	14/-1
		17,248 22,543	9,668 12,764	9,779	NA	NA NA
April	NA		-			

2000 Total	NA	340,988	129,804	95,358	105,875	9,895

Data Notes:

 $\overline{\text{Dash (-)}} = \overline{\text{Data not reported.}}$

NA = Not available.

W = Withheld to avoid disclosure of individual company data.

<u>Data Sources:</u> Natural Gas prices are extracted from the Oil and Gas Information Retrieval System.

For data prior to 1999, contact the National Energy Information Center (see below) and request an extract of the data.

Marketed Production: Natural Gas Monthly, Table 7.

All Consumers: Natural Gas deliveries to all consumers, Natural Gas Monthly, Table 19.

Residential: Natural Gas deliveries to residential customers, Natural Gas Monthly, Table 15.

Commercial: Natural Gas deliveries to commercial customers, Natural Gas Monthly, Table 16.

Industrial: Natural Gas deliveries to industrial customers, Natural Gas Monthly, Table 17.

Utilities: Natural Gas deliveries to utility customers, Natural Gas Monthly, Table 18.

Natural Gas Monthly | Natural Gas Annual

Transportation Fuels

Energy Inform	mation Admini	stration								
Transportati	ion Fuels									
Prime Suppl	lier Sales in M	linnesota								
			Thousand Ga	llons per Day	')					
http://www.eia.doe.gov Not available in this format as of December 2005										
<u>2005</u>	<u>Total</u> Gasoline	Regular Gasoline	Midgrade Gasoline	Premium Gasoline	Aviation Gasoline	<u>Jet Fuel</u>	No 2 Diesel			
July	7,875.50	6,380.60	1,016.90	478	26	1384.2	2,870.80			
June	7,995.20	6,485.90	1,049.50	459.8	27.9	1343.2	3,036			
May	7,649.60	6,306.80	919.3	423.5	15.4	1249.7	2,870.20			
April	7,209.70	5,979.90	879	350.8	14.4	1341.7	2,835.80			
March	7,271.80	6,009.10	929.4	333.3	14.4	1363.4	2,771.50			
February	7,008.20	5,741.80	903	363.4	8.8	1240.8	2,409.30			
January	6,808	5,547.90	869.7	390.5	8.4	1211.4	2,164.30			
2005 Total	NA	NA	NA	NA	NA	NA	NA			
<u>2004</u>	Total Gasoline	Regular Gasoline	Midgrade Gasoline	Premium Gasoline	Aviation Gasoline	Jet Fuel	No 2 Diesel			
Decembe r	7,610	6,180.20	970.6	459.2	9.4	1061.8	2,520.60			
Novembe r	7,207.20	5,962.60	901.2	343.3	9.8	1207.5	2,955.20			
October	7,383.20	6,033.60	953.6	395.9	13.3	1130.1	3,518.40			
Septemb er	7,510.20	6,088.50	977	444.6	14.4	1030.6	3,083.90			
August	7,731.30	6,287.80	951.5	492.1	19.8	1462.8	2,855			
July	7,981.60	6,468.60	992.7	520.3	23.1	1420.2	2,681.10			
June	7,896.60	6,424.40	1,020.80	451.3	23.5	1355.4	2,787.10			
May	7,098.40	5,804.90	901.4	392.1	13.7	1168.7	2,709.50			
April	7,146.40	5,823.10	948.9	374.4	18.3	1167.2	3,031.80			
March	6,867.70	5,590.90	920.5	356.3	14.9	1116.6	2,522.50			
February	6,843.60	5,518.70	899.1	425.8	8.4	1230	2,328.10			
January	6,957.30	5,628.40	926.7	402.2	7.4	1060	2,518.90			
2004 Total	7,354.60	5,985.90	947.1	421.6	14.7	1200.9	2,793.30			
2003	Total Gasoline	Regular Gasoline	Midgrade Gasoline	Premium Gasoline	Aviation Gasoline	Jet Fuel	No 2 Diesel			
Decembe r	6,952.20	5,567.10	974.9	410.2	8.7	1105.8	W			
Novembe r	6,788.80	5,491.50	889.3	408	W	1142.2	W			
October	7,225	5,806.20	986.9	431.9	11.3	1094.2	3,310			

Septemb	6,847.60	E 46E 20	932.3	450	15.1	1158.3	W
er	0,047.00	5,465.30	932.3	430	15.1	1130.3	VV
August	7,272.50	5,812.80	958.7	501	23.8	1271.9	W
July	7,470.10	5,862.40	1,036.40	571.4	20.5	1172.7	W
June	7,421.50	5,859.90	1,027.10	534.5	18.3	1185.5	W
May	7,378.80	5,901.20	989.2	488.5	W	1122.2	2,459
April	6,534.60	5,245.10	926.8	362.7	14.4	1151	2,575.50
March	6,165.70	4,975.10	869.5	321.1	9.9	1170.5	W
February	6,448.30	5,209.70	892.1	346.4	9.3	1157.1	1,862.40
January	6,580.80	5,250.70	939.1	390.9	8.5	1023.7	1,969.60
2003 Total	6,986.70	5,585	961.5	440.2	13.7	1143.4	2,484.80
<u>2002</u>	<u>Total</u> Gasoline	<u>Regular</u> Gasoline	Midgrade Gasoline	Premium Gasoline	Aviation Gasoline	Jet Fuel	No 2 Diesel
Decembe	6,721.90	5,379.50	930.3	412.1	9.2	1072.4	1,909.20
r	0,721.00		300.0				1,000.20
Novembe r	6,828.70	5,458.60	965.7	404.5	11.3	1115.5	2,432.10
October	6,899.70	5,506.80	999.7	393.2	11.8	1125.6	3,264
Septemb	6,708.70	5,293.80	961.8	453.1	W	1172.6	2,788.70
er							
August	7,147.90	5,605.60	1,017.30	525	20.4	1161.2	2,532.50
July	7,631.40	5,871.30	1,159.70	600.5	27.8	1150.2	2,449
June	7,044.70	5,520.30	994.8	529.6	16.3	1122.6	2,245.70
May	7,111.90	5,623.70	1,011.60	476.7	41.4	1181	2,609.90
April	6,553	5,296	912.1	344.9	13.7	1169	2,280.10
March	6,291.60	5,024.30	892.8	374.6	6.9	998.9	2,019.30
February	6,198.40	4,991.50	831	376	9.2	1058.5	1,751.10
January	6,140.90	5,035.80	754.7	350.4	7.8	1022	1,732.20
2002 Total	6,777.80	5,387.10	953.5	437.2	15.9	1112.6	2,338.20
2002 Total 2001	<u>Total</u>	Regular	Midgrade	437.2 Premium Gasoline	Aviation	1112.6 <u>Jet Fuel</u>	No 2
				<u>Premium</u>			
2001 Decembe	Total Gasoline 6,678.80	Regular Gasoline 5,407.70	Midgrade Gasoline 856.2	Premium Gasoline 414.9	Aviation Gasoline 11.2	Jet Fuel 931.2	No 2 <u>Diesel</u> 1,989.50
2001 Decembe	Total Gasoline	Regular Gasoline	Midgrade Gasoline	Premium Gasoline	Aviation Gasoline	<u>Jet Fuel</u>	No 2 Diesel
2001 Decembe r Novembe	Total Gasoline 6,678.80	Regular Gasoline 5,407.70	Midgrade Gasoline 856.2	Premium Gasoline 414.9	Aviation Gasoline 11.2	Jet Fuel 931.2	No 2 <u>Diesel</u> 1,989.50
Decembe r Novembe r October Septemb	Total Gasoline 6,678.80 6,795.80	Regular Gasoline 5,407.70 5,512.50	Midgrade Gasoline 856.2 855.2	Premium Gasoline 414.9 428	Aviation Gasoline 11.2 13.6	931.2 1093.6	No 2 Diesel 1,989.50
2001 Decembe r Novembe r October Septemb er	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70	Midgrade Gasoline 856.2 855.2 901.4 772.3	Premium Gasoline 414.9 428 445.5 385.7	Aviation Gasoline 11.2 13.6 14.4 12.9	931.2 1093.6 950.9 NA	No 2 Diesel 1,989.50 W 3,242.60 2,601.80
2001 Decembe r Novembe r October Septemb er August	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70	Midgrade Gasoline 856.2 855.2 901.4 772.3	Premium Gasoline 414.9 428 445.5 385.7 499.8	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3	931.2 1093.6 950.9 NA	No 2 Diesel 1,989.50 W 3,242.60 2,601.80
Decembe r Novembe r October Septemb er August July	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246 7,239.30	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70 5,889 5,705.70	Midgrade Gasoline 856.2 855.2 901.4 772.3 857.1 1,016.60	Premium Gasoline 414.9 428 445.5 385.7 499.8 516.9	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3 26.6	931.2 1093.6 950.9 NA 1240.3 1282.9	No 2 Diesel 1,989.50 W 3,242.60 2,601.80 2,451.20 2,303.70
Decembe r Novembe r October Septemb er August July June	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246 7,239.30 7,299.80	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70 5,889 5,705.70 5,936.20	Midgrade Gasoline 856.2 855.2 901.4 772.3 857.1 1,016.60 907.1	Premium Gasoline 414.9 428 445.5 385.7 499.8 516.9 456.5	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3 26.6 18.2	931.2 1093.6 950.9 NA 1240.3 1282.9 1388.6	No 2 Diesel 1,989.50 W 3,242.60 2,601.80 2,451.20 2,303.70 2,284
Decembe r Novembe r October Septemb er August July June May	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246 7,239.30 7,299.80 6,880.40	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70 5,889 5,705.70 5,936.20 5,665.10	Midgrade Gasoline 856.2 855.2 901.4 772.3 857.1 1,016.60 907.1 826.3	Premium Gasoline 414.9 428 445.5 385.7 499.8 516.9 456.5 389	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3 26.6 18.2 18.8	931.2 1093.6 950.9 NA 1240.3 1282.9 1388.6 1272.5	No 2 Diesel 1,989.50 W 3,242.60 2,601.80 2,451.20 2,303.70 2,284 2,317.10
Decembe r Novembe r October Septemb er August July June May April	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246 7,239.30 7,299.80 6,880.40 6,661.60	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70 5,889 5,705.70 5,936.20 5,665.10 5,481.50	Midgrade Gasoline 856.2 855.2 901.4 772.3 857.1 1,016.60 907.1 826.3 820.4	Premium Gasoline 414.9 428 445.5 385.7 499.8 516.9 456.5 389 359.7	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3 26.6 18.2 18.8 13.1	931.2 1093.6 950.9 NA 1240.3 1282.9 1388.6 1272.5 1294.2	No 2 Diesel 1,989.50 W 3,242.60 2,601.80 2,451.20 2,303.70 2,284 2,317.10 2,095.70
2001 Decembe r Novembe r October Septemb er August July June May April March	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246 7,239.30 7,299.80 6,880.40 6,661.60 6,463.50	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70 5,889 5,705.70 5,936.20 5,665.10 5,481.50 5,233.80	Midgrade Gasoline 856.2 855.2 901.4 772.3 857.1 1,016.60 907.1 826.3 820.4 831.5	Premium Gasoline 414.9 428 445.5 385.7 499.8 516.9 456.5 389 359.7 398.3	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3 26.6 18.2 18.8 13.1 14.3	931.2 1093.6 950.9 NA 1240.3 1282.9 1388.6 1272.5 1294.2 1193.9	No 2 <u>Diesel</u> 1,989.50 W 3,242.60 2,601.80 2,451.20 2,303.70 2,284 2,317.10 2,095.70 2,221
Decembe r Novembe r October Septemb er August July June May April March February	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246 7,239.30 7,299.80 6,880.40 6,661.60 6,463.50 6,580.10	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70 5,889 5,705.70 5,936.20 5,665.10 5,481.50 5,233.80 5,267.20	Midgrade Gasoline 856.2 855.2 901.4 772.3 857.1 1,016.60 907.1 826.3 820.4 831.5 891.5	Premium Gasoline 414.9 428 445.5 385.7 499.8 516.9 456.5 389 359.7 398.3 421.5	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3 26.6 18.2 18.8 13.1 14.3 8.6	931.2 1093.6 950.9 NA 1240.3 1282.9 1388.6 1272.5 1294.2 1193.9 1158.1	No 2 Diesel 1,989.50 W 3,242.60 2,601.80 2,451.20 2,303.70 2,284 2,317.10 2,095.70 2,221 1,752.20
2001 Decembe r Novembe r October Septemb er August July June May April March	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246 7,239.30 7,299.80 6,880.40 6,661.60 6,463.50	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70 5,889 5,705.70 5,936.20 5,665.10 5,481.50 5,233.80	Midgrade Gasoline 856.2 855.2 901.4 772.3 857.1 1,016.60 907.1 826.3 820.4 831.5 891.5	Premium Gasoline 414.9 428 445.5 385.7 499.8 516.9 456.5 389 359.7 398.3 421.5 366.9	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3 26.6 18.2 18.8 13.1 14.3	931.2 1093.6 950.9 NA 1240.3 1282.9 1388.6 1272.5 1294.2 1193.9 1158.1 1193.2	No 2 Diesel 1,989.50 W 3,242.60 2,601.80 2,451.20 2,303.70 2,284 2,317.10 2,095.70 2,221 1,752.20 1,866.50
Decembe r Novembe r October Septemb er August July June May April March February January	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246 7,239.30 7,299.80 6,880.40 6,661.60 6,463.50 6,580.10 6,068.20	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70 5,889 5,705.70 5,936.20 5,665.10 5,481.50 5,233.80 5,267.20 4,855.50	Midgrade Gasoline 856.2 855.2 901.4 772.3 857.1 1,016.60 907.1 826.3 820.4 831.5 891.5	Premium Gasoline 414.9 428 445.5 385.7 499.8 516.9 456.5 389 359.7 398.3 421.5	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3 26.6 18.2 18.8 13.1 14.3 8.6 9.3	931.2 1093.6 950.9 NA 1240.3 1282.9 1388.6 1272.5 1294.2 1193.9 1158.1	No 2 Diesel 1,989.50 W 3,242.60 2,601.80 2,451.20 2,303.70 2,284 2,317.10 2,095.70 2,221 1,752.20
Decembe r Novembe r October Septemb er August July June May April March February January	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246 7,239.30 7,299.80 6,880.40 6,661.60 6,463.50 6,580.10 6,068.20	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70 5,889 5,705.70 5,936.20 5,665.10 5,481.50 5,233.80 5,267.20 4,855.50	Midgrade Gasoline 856.2 855.2 901.4 772.3 857.1 1,016.60 907.1 826.3 820.4 831.5 891.5	Premium Gasoline 414.9 428 445.5 385.7 499.8 516.9 456.5 389 359.7 398.3 421.5 366.9	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3 26.6 18.2 18.8 13.1 14.3 8.6 9.3	931.2 1093.6 950.9 NA 1240.3 1282.9 1388.6 1272.5 1294.2 1193.9 1158.1 1193.2	No 2 Diesel 1,989.50 W 3,242.60 2,601.80 2,451.20 2,303.70 2,284 2,317.10 2,095.70 2,221 1,752.20 1,866.50
2001 Decembe r Novembe r October Septemb er August July June May April March February January 2001 Total Decembe	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246 7,239.30 7,299.80 6,880.40 6,661.60 6,463.50 6,580.10 6,068.20 6,813.60 Total	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70 5,889 5,705.70 5,936.20 5,665.10 5,481.50 5,233.80 5,267.20 4,855.50 5,524.70	Midgrade Gasoline 856.2 855.2 901.4 772.3 857.1 1,016.60 907.1 826.3 820.4 831.5 891.5 845.7 865.2	Premium Gasoline 414.9 428 445.5 385.7 499.8 516.9 456.5 389 359.7 398.3 421.5 366.9 423.8 Premium	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3 26.6 18.2 18.8 13.1 14.3 8.6 9.3 15.4 Aviation	931.2 1093.6 950.9 NA 1240.3 1282.9 1388.6 1272.5 1294.2 1193.9 1158.1 1193.2 1170.3	No 2 Diesel 1,989.50 W 3,242.60 2,601.80 2,451.20 2,303.70 2,284 2,317.10 2,095.70 2,221 1,752.20 1,866.50 2,297.70
Decembe r Novembe r October Septemb er August July June May April March February January 2001 Total Decembe r Novembe	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246 7,239.30 7,299.80 6,880.40 6,661.60 6,463.50 6,580.10 6,068.20 6,813.60	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70 5,889 5,705.70 5,936.20 5,665.10 5,481.50 5,233.80 5,267.20 4,855.50 5,524.70 Regular Gasoline	Midgrade Gasoline 856.2 855.2 901.4 772.3 857.1 1,016.60 907.1 826.3 820.4 831.5 891.5 845.7 865.2 Midgrade Gasoline	Premium Gasoline 414.9 428 445.5 385.7 499.8 516.9 456.5 389 359.7 398.3 421.5 366.9 423.8 Premium Gasoline	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3 26.6 18.2 18.8 13.1 14.3 8.6 9.3 15.4 Aviation Gasoline	931.2 1093.6 950.9 NA 1240.3 1282.9 1388.6 1272.5 1294.2 1193.9 1158.1 1193.2 1170.3	No 2 <u>Diesel</u> 1,989.50 W 3,242.60 2,601.80 2,451.20 2,303.70 2,284 2,317.10 2,095.70 2,221 1,752.20 1,866.50 2,297.70 No 2 <u>Diesel</u>
Decembe r Novembe r October Septemb er August July June May April March February January 2001 Total Decembe r	Total Gasoline 6,678.80 6,795.80 7,184.60 6,647.70 7,246 7,239.30 7,299.80 6,880.40 6,661.60 6,463.50 6,580.10 6,068.20 6,813.60 Total Gasoline 7,283.80	Regular Gasoline 5,407.70 5,512.50 5,837.70 5,489.70 5,889 5,705.70 5,936.20 5,665.10 5,481.50 5,233.80 5,267.20 4,855.50 5,524.70 Regular Gasoline 5,819.50	Midgrade Gasoline 856.2 855.2 901.4 772.3 857.1 1,016.60 907.1 826.3 820.4 831.5 891.5 845.7 865.2 Midgrade Gasoline 980.5	Premium Gasoline 414.9 428 445.5 385.7 499.8 516.9 456.5 389 359.7 398.3 421.5 366.9 423.8 Premium Gasoline 483.8	Aviation Gasoline 11.2 13.6 14.4 12.9 23.3 26.6 18.2 18.8 13.1 14.3 8.6 9.3 15.4 Aviation Gasoline 10	931.2 1093.6 950.9 NA 1240.3 1282.9 1388.6 1272.5 1294.2 1193.9 1158.1 1193.2 1170.3 Jet Fuel 1129.1	No 2 <u>Diesel</u> 1,989.50 W 3,242.60 2,601.80 2,451.20 2,303.70 2,284 2,317.10 2,095.70 2,221 1,752.20 1,866.50 2,297.70 No 2 <u>Diesel</u> 1,893

Septemb	6,639.50	5,413.30	848.2	377.9	17.8	1394.2	2,607.30
er							
August	7,488.30	5,974.60	992.9	520.7	24.9	1383.7	2,562.20
July	7,151.50	5,756.50	892.3	502.6	28	1633	1,948.40
June	7,070.60	5,768.40	885	417.3	20.2	1248.8	2,170.70
May	6,941.40	5,563.90	923.8	453.7	19.5	1238.5	2,200.50
April	6,356.90	5,097.10	868.8	391	16.1	1342.4	2,076.60
March	6,112.40	5,026.40	790	296	16.7	1284.7	1,913.30
February	6,273.80	5,036.50	860	377.3	12.5	1191	1,548.30
January	5,673.30	4,423.20	855.6	394.5	7.4	1126.4	1,328.10
2000 Total	6,714	5,400.40	895.3	418.3	16.8	1285.9	2,083.20

Data Notes:

Jet Fuel is the sum of Kero Jet and Naphtha Jet. If at least one of them is withheld or not reported, then the entry is NA.

Prime supplier sales by major distribution facilities do not always capture the actual location of consumption of the product by the end-user. A product may be sold by a prime supplier in one State and transported by local distributors to another State for final consumption. This can be a significant issue for States where

local networks frequently cross State boundaries, such as New Jersey and New York.

Dash (-) = Data not reported.

NA = Not available.

W = Withheld to avoid disclosure of individual company data.

<u>Data Sources:</u> Sales are extracted from the Oil and Gas Information Retrieval System.

For data prior to 1999, contact the National Energy Information Center (see below) and request an extract of the data.

Gasoline (Total, Regular, Midgrade, and Premium): All Sales/Deliveries by Prime Supplier, Petroleum Marketing Monthly, Table 48.

Gasoline (Aviation): All Sales/Deliveries by Prime Supplier, Petroleum Marketing Monthly, Table 49.

Jet Fuel: Kerosene+Naphtha, All Sales/Deliveries by Prime Supplier, Petroleum Marketing Monthly, Table 49.

No 2 Diesel: All Sales/Deliveries by Prime Supplier, Petroleum Marketing Monthly, Table 50.

Coal

These charts relate to the coal discussion within Section III, Vulnerability Assessment, "Additional Considerations for Assessing Vulnerability." The data are national.

Figure 16

Coal Production by Region, 1995-2004 (Million Short Tons)

Regional totals do not include refuse recovery \
EIA, Quarterly Coal Report, October-December 2004, DOE/EIA-0121(2004/Q4)

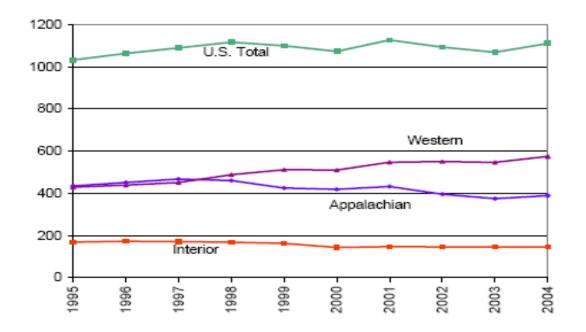


Figure 17

Year-End Coal Stocks, 1995-2004 (Million Short Tons)

Energy Information Administration, Quarterly Coal Report, October-December 2004, DOE/EIA-0121(2004/Q4)

250 T

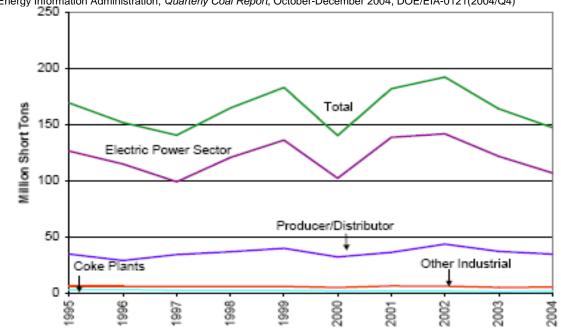


Figure 18

Coal Consumption by Sector, 1995-2004 (Million Short Tons)

Energy Information Administration, *Monthly Energy Review*, March 2005, DOE/EIA-0035(2005/03)

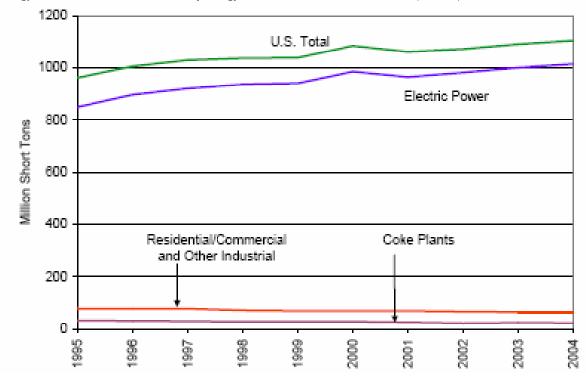
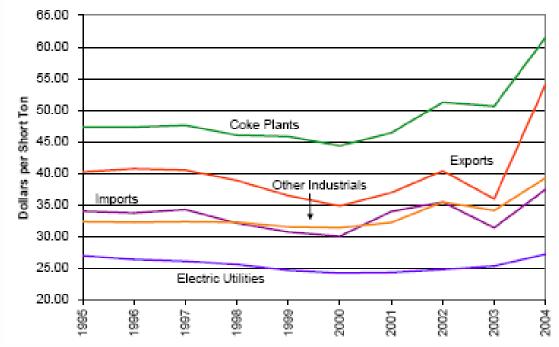


Figure 19

Delivered Coal Prices, 1995-2004 (Nominal Dollars)

EIA, Quarterly Coal Report, October-December 2004, DOE/EIA-0121(2004/Q4)



Appendix III - Minnesota Rules

This copy of Minnesota Statutes 2004, 216C.15 is furnished for reference purposes.

Minnesota Statutes 2004, 216C.15

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Minnesota Statutes 2004, Table of Chapters

Table of contents for Chapter 216C

216C.15 Energy supply emergency conservation and allocation plan.

- Subdivision 1. **Priorities and requirements.** The commissioner shall maintain an emergency conservation and allocation plan. The plan shall provide a variety of strategies and staged conservation measures to reduce energy use and in the event of an energy supply emergency, shall establish guidelines and criteria for allocation of fuels to priority users. The plan shall contain alternative conservation actions and allocation plans to reasonably meet various foreseeable shortage circumstances and allow a choice of appropriate responses. The plan shall be consistent with requirements of federal emergency energy conservation and allocation laws and regulations, shall be based on reasonable energy savings or transfers from scarce energy resources and shall:
- (1) give priority to individuals, institutions, agriculture, businesses, and public transit under contract with the commissioner of transportation or the Metropolitan Council which demonstrate they have engaged in energy-saving measures and shall include provisions to insure that:
- (i) immediate allocations to individuals, institutions, agriculture, businesses, and public transit be based on needs at energy conservation levels;
- (ii) successive allocations to individuals, institutions, agriculture, businesses, and public transit be based on needs after implementation of required action to increase energy conservation; and
- (iii) needs of individuals, institutions, and public transit are adjusted to insure the health and welfare of the young, old and infirm;
- (2) insure maintenance of reasonable job safety conditions and avoid environmental sacrifices;
- (3) establish programs, controls, standards, priorities or quotas for the allocation, conservation and consumption of

energy resources; and for the suspension and modification of existing standards and the establishment of new standards affecting or affected by the use of energy resources, including those related to the type and composition of energy sources, and to the hours and days during which public buildings, commercial and industrial establishments, and other energy consuming facilities may or are required to remain open;

- (4) establish programs to control the use, sale or distribution of commodities, materials, goods or services;
- (5) establish regional programs and agreements for the purpose of coordinating the energy resources, programs and actions of the state with those of the federal government, of local governments, and of other states and localities;
- (6) determine at what level of an energy supply emergency situation the Pollution Control Agency shall be requested to ask the governor to petition the president for a temporary emergency suspension of air quality standards as required by the Clean Air Act, United States Code, title 42, section 7410f; and
- (7) establish procedures for fair and equitable review of complaints and requests for special exemptions regarding emergency conservation measures or allocations.
- Subd. 2. **Periodic revision.** At least once every five years and whenever construction of a new large energy facility is completed which affects the supply of energy in Minnesota, the commissioner shall review and if necessary revise the emergency conservation and allocation plan. Revisions of the emergency conservation and allocation plan shall be adopted pursuant to the rulemaking procedures in chapter 14 and reviewed by the appropriate standing committees of the legislature.
- Declaration of energy supply emergency. The Executive Council or the legislature may declare an energy supply emergency when an acute shortage of energy exists by issuing a declaration which indicates the nature of the emergency, the area or areas threatened if less than the whole state is threatened, and the conditions causing the emergency. The declaration shall be disseminated promptly by means calculated to bring its contents to the attention of the general public and shall be promptly filed with the commissioner, the Division of Emergency Management and the secretary of state. Upon a declaration of an energy supply emergency by the Executive Council or the legislature, the governor and the Division of Emergency Management, in consultation with the commissioner, shall implement and enforce the emergency conservation and allocation plan or any part thereof. Revisions of the plan shall be made by the commissioner in accordance with subdivision 2. The Executive Council or the legislature may terminate an energy supply emergency at any time by issuing a declaration which terminates the energy supply emergency and indicates the conditions which make possible termination of the emergency, but no energy supply emergency may continue for longer than 30 days unless renewed by the legislature. Each renewed energy supply emergency may not continue for longer than

30 days, unless otherwise provided by law. Each person shall carry out the responsibilities specified in the emergency conservation allocation plan, and violation of any provision of such emergency conservation or allocation requirements shall be deemed a violation of sections $\underline{216C.05}$ to $\underline{216C.30}$ and the rules promulgated thereunder for purposes of enforcement pursuant to section $\underline{216C.30}$.

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HIST: 1974 c 307 s 9; 1974 c 428 s 5; Ex1979 c 2 s 16-18; 1981 c 356 s 133-135,248; 1982 c 424 s 130; 1984 c 640 s 32; 1987 c 71 s 2; 1987 c 312 art 1 s 10 subd 1; 1993 c 83 s 4; 1994 c 628 art 3 s 16; 1996 c 305 art 2 s 41
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This copy of the full text of Minnesota Rules, from which Minnesota energy emergency response measures are derived, is furnished for reference.

Minnesota Rules, Chapter 7620.

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7620.0100 DEFINITIONS.

Subpart 1. **Scope.** For purposes of parts 7620.0100 to $\underline{7620.0730}$ the terms defined in this part have the meanings given them.

- Subp. 2. **Agriculture.** "Agriculture" means activities of establishments primarily engaged in food production, processing, and sale classified under the industry code numbers specified below as set forth in "Standard Industrial Classification Manual," 1972 edition, and the transport of goods and commodities for the below defined activities:
- A. Major Group 01 Crops, except for industry code numbers 0132 tobacco, and 0181 ornamental floriculture and nursery products;
- B. Major Group 02 Livestock, except for animal specialties, industry code numbers 0271, 0272, and 0279;
- C. Major Group 07 Agricultural Services, except for industry code numbers 0742 veterinary services for animal specialties, 0752 animal specialty services, 0781 landscape counseling and planning, 0782 lawn and garden services, and 0783 ornamental shrub and tree services;
 - D. Major Group 09 Fishing, Hunting, and Trapping;
- E. Major Group 20 Food and Kindred products, except for all industry codes under Group 208 Beverages, and 2065 candy and other confectionery products;
- F. Group 514 Groceries and Related Products (all industry codes found thereunder);
- G. Group 515 Farm Product Raw materials (all industry codes found thereunder); and
 - H. Major Group 54 Food Stores.
- Subp. 3. **Assistant commissioner.** "Assistant commissioner" means the assistant commissioner of the Minnesota Department of Commerce who heads the Energy Division.
 - Subp. 4. Baseline consumption. "Baseline consumption"

means the reasonable estimate of the amount of motor fuel consumed by employees or students in commuting to and from the worksite plus the amount of motor fuel consumed for a school's or an employer's travel, over a period which represents the normal level of operation. For determining baseline consumption any of the following methods shall constitute a representative period for the purpose of these rules: the preceding 12 months; or the most recent three-year average; or a 12-month "rolling base" where the most recent month's data is added and the thirteenth month's data deleted.

Subp. 5. **Btu.** "Btu" means British thermal unit, a unit of energy measurement used for comparative purposes.

Subp. 6. Cargo, freight, and mail hauling, including newspaper deliveries. "Cargo, freight, and mail hauling, including newspaper deliveries" means: motor carriers for hire, licensed and operating under Minnesota Statutes, sections 221.011 to 221.293 including independent owner-operators transporting goods under a lease or contract indicating their "for hire" status, where the lease can be produced by the driver-operator; local cartage carriers, licensed and operating under Minnesota Statutes, section 221.296; interstate motor carriers, operating in Minnesota under Minnesota Statutes, sections 221.60 to 221.68; mail hauling by any motor vehicle owned and operated by the United States Postal Service; and newspaper delivery by a motor vehicle identified as a newspaper carrier; trucks that have truck bodies specifically designed for cargo and freight hauling and are commercial vehicles as defined in subpart 9; and rail, barge, and ship transportation of cargo or freight.

Subp. 7. **Carpool.** "Carpool" means a continuing travel arrangement by which three or more persons travel together in a vehicle owned or rented by one or more of such persons.

Subp. 8. Commercial building. "Commercial building" means a building all of whose occupants are engaged in commerce, unless residential occupants have separate heating controls.

Subp. 9. Commercial vehicles. "Commercial vehicles" means vehicles registered and licensed in the commercial class with the Division of Driver and Vehicle Services of the Department of Public Safety, or vehicles that by their design, size, or company identification or by the presence of specialized equipment, tools, or instruments of the trade or profession or other evidence of commercial use are obviously being used for commercial purposes.

Subp. 10. **Commissioner.** "Commissioner" means the commissioner of the Minnesota Department of Commerce.

Subp. 11. **Company-owned vehicles.** "Company-owned vehicles" means passenger automobiles, vans, and light trucks owned or leased by the employer.

Subp. 12. **Consumer.** "Consumer" means a person that consumes fuel oil, or motor fuel whether diesel fuel, gasoline, propane, or alcohol.

Subp. 13. County or municipal fuel coordinator. "County or municipal fuel coordinator" means a person who has been appointed by the county board or city council to act as local fuel allocation resource person.

Subp. 14. **Demand.** "Demand" means the quantity of products or services for which there are willing and able purchasers. Subp. 15. **Department.** "Department" means the Minnesota

Department of Commerce.

- Subp. 16. **Division.** "Division" means the Division of Emergency Management of the Department of Public Safety. Subp. 17. **Division director.** "Division director" means
- the director of the Division of Emergency Management.
- Subp. 18. **Electric utility.** "Electric utility" means an entity engaged in the generation, transmission, or distribution of electric energy for sale.
- Subp. 19. Emergency vehicle. "Emergency vehicle" means any of the following vehicles: a vehicle of a fire department or fire-fighting unit; a publicly owned law enforcement vehicle or privately owned vehicle used by a law enforcement officer for police work under agreement, express or implied, with the local authority; a vehicle of a licensed emergency ambulance service, whether publicly or privately owned; an emergency vehicle of a municipality, department or public service corporation including emergency services vehicles approved by the chief of police of a municipality, the county sheriff, or the division director; a vehicle of a utility or contractor while performing emergency repairs or maintenance for electric, water, waste treatment, natural gas or telecommunications utilities and end user primary services, and petroleum, petroleum products or natural gas pipelines or facilities; a vehicle of the state, county, municipal, or other subdivision of government used for snow removal, emergency road and traffic signal repair or search and rescue operations, or privately owned vehicles of a contractor under contract to perform these services.
- Subp. 20. Employer-provided parking. "Employer-provided parking" means a space such as a lot, garage, or other space, or portion thereof, which is used for the parking of commuter vehicles, and which is wholly or partly owned or leased by an employer or otherwise made available to its employees, except that this term shall not include park and ride facilities or customer parking provided by a retail or service establishment.
- Subp. 21. **Employment site.** "Employment site" means a building, facility, complex or site at which employees work or study, or any combination of such buildings or sites which are geographically close.
- Subp. 22. **Energy production.** "Energy production" means transportation of energy or primary fuels by pipeline, transmission line, rail, barge or a motor carrier included in the definition of cargo, freight and mail hauling or other trucks and the refining, processing, production and distribution of coal, natural gas, petroleum or petroleum products, shale oil, nuclear fuels, and electrical energy.
- Subp. 23. **Environmental standards.** "Environmental standards" means the laws, regulations, and rules, federal and state, intended to protect the environment.
- Subp. 24. Essential government services. "Essential government services" means court and judicial activities, jails and prisons, meetings of duly elected political officials, operations of the Division of Emergency Management and the emergency operating center, hearings of local energy conservation boards and the Office of Administrative Hearings, minimum services to provide AFDC, SSI, and Social Security checks and other welfare payments including food stamps or food support, and activities which provide life-sustaining services.
 - Subp. 25. Extracurricular activities. "Extracurricular

- activities" means school-sponsored activities requiring transportation off campus, except for the daily transportation of students to and from school.
- Subp. 26. **Flexible work hours.** "Flexible work hours" or "flextime" means a work system in which employees at an employment site have some discretion in their choice of working hours.
- Subp. 27. **Forecast.** "Forecast" means a projection of future demand or supply for a specified time period.
- Subp. 28. **Fuel oil.** "Fuel oil" means a liquid or liquefiable petroleum product with a flashpoint above 100 degrees Fahrenheit which is used to generate heat or power including middle distillate oil or residual oil.
- Subp. 29. Health and residential care services. "Health and residential care services" means hospitals, nursing homes, penal institutions, and all types of residential treatment centers including drug/alcoholism treatment centers, residential mental health centers, and residential care centers for the retarded or handicapped.
- Subp. 30. **Highways.** "Highways" means interstate, trunk, county state-aid, county, and municipal state-aid highways in Minnesota, as defined in Minnesota Statutes, section $\underline{160.02}$, subdivisions 17, 18, 21, 26, and 29, and United States Code 1980, title 23, section 101.
- Subp. 31. **Homeowner.** "Homeowner" means a person who has a vested legal or beneficial interest, jointly or severally, in a dwelling which is occupied by that person.
- Subp. 32. **Jitney.** "Jitney" means a spontaneous carpool formed by driving along an existing transit route and picking up riders for a fare or participating in a telephone ride exchange system. Jitneys supplement existing transit service.
- Subp. 33. Licensed motor vehicle dealer. "Licensed motor vehicle dealer" means a motor vehicle seller or lessor licensed to do business under Minnesota Statutes, section $\underline{168.27}$, subdivisions 2 to 25.
- Subp. 34. Middle distillate. "Middle distillate" means a derivative of petroleum, including kerosene, home heating oil, range oil, stove oil, and diesel fuel, which has a 50 percent boiling point in the ASTM D86 standard distillation test falling between 370 degrees and 700 degrees Fahrenheit, except that kerosene-base and naphtha-base jet fuel, heavy fuel oils as defined in ASTM D-396, grades #4, 5, and 6, intermediate fuel oils (which are blends containing #6 oil), and specialty items such as solvents, lubricants, waxes, and process oil are excluded.
- Subp. 35. Military uses. "Military uses" means the activities of the armed forces of the United States and of the Minnesota Department of Military Affairs, the Office of Adjutant General, military reservations, installations, armories, air bases, and facilities owned or controlled by the state for military purposes, and includes the National Guard, the state guard, and any other organization or components of the organized militia authorized by Minnesota Statutes, chapters 190 to 193, known as the military code.
- Subp. 36. **Moped.** "Moped" means a pedal bicycle or similar two-wheel vehicle propelled by a motor.
- Subp. 37. **Motorcycle.** "Motorcycle" means a vehicle with two wheels in tandem, propelled by an internal combustion

- engine, and sometimes having a sidecar with a third wheel.

 Subp. 38. Motor fuel. "Motor fuel" means a mixture of volatile hydrocarbons, suitable for operation of an internal combustion engine.
- Subp. 39. **Motor vehicle owner.** "Motor vehicle owner" means a person owning or renting a motor vehicle, or having exclusive use thereof, under a lease or otherwise, for a period greater than seven days.
- Subp. 40. Park and ride facility. "Park and ride facility" means a parking facility the use of which is limited exclusively to the parking of commuter vehicles whose occupants transfer at the facility to transit or paratransit services.
- Subp. 41. Passenger transportation services. "Passenger transportation services" means conventional public transit service which operates on a fixed route and is available to the public for a fare, intercity bus transportation, vanpools, subscription buses, tour and charter bus transportation, bus transportation of pupils for educational purposes, taxicabs licensed to conduct business in a municipality, air and rail passenger transportation except for air charter services, and special transportation services for the elderly or handicapped.
- Subp. 42. **Permit sticker.** "Permit sticker" means a self-adhesive tag issued by the Department of Public Safety to designate the weekday on which a vehicle issued that sticker is prohibited from being operated.
- Subp. 43. **Person.** "Person" means an individual, firm, estate, trust, sole proprietorship, partnership, association, company, corporation, governmental unit or subdivision thereof, or a charitable or educational institution.
- Subp. 44. **Plant protection.** "Plant protection" means minimum plant maintenance necessary to secure buildings and prevent damage to equipment or plant property from inclement weather or loss of essential processes.
- Subp. 45. **Prohibited day.** "Prohibited day" means the day for which a vehicle owner has been issued a permit sticker, designating it a "no driving" day for that vehicle.
- Subp. 46. **Residence.** "Residence" means the place where a natural person lives, including hotels and motels and buildings being used as emergency housing facilities.
- Subp. 47. **Residual fuel oil.** "Residual fuel oil" means the fuel oil commonly known as: number 4, number 5, and number 6 fuel oils; bunker C; navy special fuel oil; and all other fuel oils that have a 50 percent boiling point over 700 degrees Fahrenheit in the ASTM D-86 standard distillation test.
- Subp. 48. Sanitation services. "Sanitation services" means: the collection and disposal for the public of solid or liquid wastes and hazardous wastes, whether by public or private entities; the maintenance, operation and repair of liquid purification and waste facilities; and the provision of a water supply by public utilities, whether private or publicly owned and operated.
- Subp. 49. **Shortage.** "Shortage" means a situation in which demand exceeds supply and normal market forces will not act to equalize supply and demand within a reasonable period.
- Subp. 50. **Staggered work hours.** "Staggered work hours" means employee starting and quitting times stipulated at step intervals by the employer so that work arrival and departure times of employees on a single shift are spread over a period of

at least two hours.

Subp. 51. **State set-aside.** "State set-aside" means the amount of an allocated product from the total supply of a supplier made available to the state to meet emergencies and hardship needs under Minnesota Statutes, section 216C.16.

Subp. 52. **Subscription bus.** "Subscription bus" means a transit service in which employers or groups of employees contract with a public or private bus operator to provide daily commuter service for a group of subscribers on a prepaid or daily fare basis, following a fixed route and a schedule tailored to meet the needs of the subscribers.

Subp. 53. **Supplier.** "Supplier" means a firm or a part of a subsidiary of a firm (other than the Department of Defense) which presently supplies, sells, transfers, or otherwise furnishes (as by consignment) a petroleum product to wholesale purchasers or end users, including refiners, natural gas processing plants or fractioning plants, importers, resellers, jobbers, and retailers.

Subp. 54. **Telecommunications.** "Telecommunications" means the repair, operation, and maintenance of voice, data, telegraph, video, and similar communication services for the public by a communications common carrier, or by a firm providing the same service in direct competition with a communications common carrier.

Subp. 55. **Tenant.** "Tenant" means a person who occupies (but does not own) a dwelling under an oral or written agreement, lease, or contract, for a period of time, which requires the payment of rent.

Subp. 56. **Vanpool.** "Vanpool" means eight or more persons commuting on a daily basis to and from work in a vehicle with a seating arrangement designed to carry eight to 15 adult passengers.

Subp. 57. **Vehicle lessee.** "Vehicle lessee" means a person, firm, or corporation possessing a motor vehicle by lease.

STAT AUTH: MS s 216C.15

<code>HIST: L 1983 c 289 s 115 subd 1; L 1987 c 71 s 2, c 312 art 1 s 9,10 subd 1; L 2001 1Sp4 art 6 s 1; L 2003 1Sp14 art 1 s 106 Current as of 01/20/05</code>

7620.0120 AUTHORITY.

These parts are authorized by Minnesota Statutes, section 216C.15. These parts will also meet, in part, federal requirements set forth in the Emergency Energy Conservation Act of 1979, section 212, United States Code, 1976 and 1979 supplement III, title 42, section 8512.

STAT AUTH: MS s 216C.15

HIST: L 1987 c 312 art 1 s 9,10 subd 1

Current as of 01/20/05

7620.0130 PURPOSE.

These parts identify measures that may be used in the event of a petroleum supply emergency. The further purposes of these parts are: to protect the health and safety of the citizens of the state by ensuring that certain priority petroleum users have sufficient fuel to conduct essential activities; to facilitate the distribution of supplies to the public in a fair manner; to identify and authorize the actions to be undertaken by governmental agencies in an energy supply emergency; to describe

the responsibilities of major employers and school district authorities in petroleum supply emergency planning and implementation; to establish an appeals system and procedures for exemptions from and exceptions to emergency measures; and to authorize the state executive to provide for the public health, safety, and welfare during an energy supply emergency.

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STAT AUTH: MS s 216C.15
   HIST: L 1987 c 312 art 1 s 9
Current as of 01/20/05
  7620.0140 SCOPE OF RULES.
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These parts shall apply:

- A. generally, during a declared energy supply emergency (see part 7620.0210);
- B. generally, during a declared energy supply alert (see part 7620.0200); and
- C. to the Minnesota Department of Commerce when the department is preparing to recommend that an energy supply alert or an energy supply emergency be declared.

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STAT AUTH: MS s 216C.15
    HIST: L 1983 c 289 s 115 subd 1; L 1987 c 312 art 1 s 9; L 2001
 1Sp4 art 6 s 1
Current as of 01/20/05
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7620.0200 ENERGY SUPPLY ALERT.

An energy supply alert shall be declared to inform Minnesota citizens of a potential energy shortage, encourage conservation, and initiate a state of readiness for the shortage.

An energy supply alert may be declared when the department forecast indicates a reasonable likelihood that an energy supply shortage will occur within six months from the date of declaration.

The commissioner shall have sole responsibility for declaring an energy supply alert.

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STAT AUTH: MS s 216C.15
   HIST: L 1987 c 312 art 1 s 9
Current as of 01/20/05
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7620.0210 ENERGY SUPPLY EMERGENCY.

Subpart 1. Definition. An energy supply emergency is a state of declared emergency resulting from a shortage of energy resources, including petroleum products, natural gas, or electricity.

Subp. 2. Department of Commerce. When the department's forecast shows that short-term demand for a fuel or fuels exceeds the forecast of short-term supply and that a supply shortage will occur within three months, the commissioner may recommend that an energy supply emergency be declared by submitting a written statement to the Executive Council or legislature. The statement shall include the factors the commissioner considered in reaching a decision to recommend that an emergency be declared and the reasons for the recommendation.

Subp. 3. Executive Council or legislature. The Executive Council (consisting of the governor, the lieutenant governor, the attorney general, the auditor, and the secretary of state) or the legislature has responsibility for declaring an energy supply emergency.

An energy supply emergency automatically expires in 30

days, unless renewed by the legislature. Each renewed energy supply emergency may not continue for longer than 30 days, unless otherwise provided by law. Minnesota Statutes, section 216C.15, subdivision 3.

Emergencies may be declared for all or part of the state and measures may be invoked accordingly. The declaration of emergency shall define the geographic area included in the energy supply emergency.

The declaration shall be promptly disseminated and brought to the attention of the general public by the Executive Council or legislature, whichever body declares the emergency. The energy supply emergency resolution shall be promptly filed with the division, the department, and the secretary of state.

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STAT AUTH: MS s 216C.15
HIST: L 1983 c 289 s 115 subd 1; L 1987 c 312 art 1 s 9,10; L 2001 1Sp4 art 6 s 1; L 2003 c 112 art 2 s 50
Current as of 01/20/05
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7620.0220 OPERATING ORGANIZATION DURING EMERGENCY.

Subpart 1. **Energy emergency operating center.** During a declared energy supply emergency, the division will set up an energy operating center.

The director of the emergency operating center will be the division director. The division director shall oversee the implementation of the emergency plan.

The emergency operating center will be located at a site designated by the division director and staffed by personnel from the division, the department and other state agencies as deemed necessary by the division director and approved by the governor.

Subp. 2. Minnesota Department of Commerce. The department shall assist the division by analyzing the energy supply situation, evaluating alternative courses of action included in the emergency plan, and advising on the proper time and sequence for implementing emergency measures.

The department shall select and recommend to the governor the least restrictive measures specified in parts $\frac{7620.0500}{620.0730}$, capable of eliminating a fuel shortage.

The assistant commissioner shall review employer and school district conservation plans and certify those which meet the requirements set out in part $\frac{7620.0620}{7620.0630}$ or $\frac{7620.0630}{7620.0630}$.

The commissioner shall make the final decision on each appeal taken from measures contained in these parts.

Subp. 3. **Emergency services.** The division shall implement the energy emergency plan and coordinate the emergency operations of government agencies involved in energy supply emergency actions.

The division shall use the regional and local fuel coordinators to coordinate emergency operations throughout the state

By January 1, 1983, the Division of Emergency Management shall develop an internal management and operations plan for implementing the measures contained in these parts.

Subp. 4. **Directing state agencies.** The governor may order any state agency or department to carry out the measures contained in these parts under the powers given the governor in

the Minnesota Civil Defense Act, Minnesota Statutes, chapter 12.

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STAT AUTH: MS s \underline{216C.15} HIST: L 1983 c 289 s 115 subd 1; L 1987 c 71 s 2; c 312 art 1 s 9; L 2001 1Sp4 art 6 s 1 Current as of 01/20/05
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7620.0230 LOCAL ENERGY CONSERVATION BOARD.

Subpart 1. **Counties and cities.** Each county and each city of the first class shall create a local energy conservation board to hear requests for exemptions or exceptions to the measures listed in parts $\underline{7620.0510}$, $\underline{7620.0520}$, $\underline{7620.0530}$, subparts 1 and 4, $\underline{7620.0600}$, $\underline{7620.0610}$, and $\underline{7620.0640}$ to $\underline{7620.0730}$.

The governor may order additional local energy conservation boards to be established upon the department's determination that additional boards are necessary to ensure compliance with the timing provisions in part 7620.0330.

The appointment of additional local energy conservation boards and their conduct shall be governed by the procedures set forth in subpart 2 and parts 7620.0310 to 7620.0340.

Subp. 2. **Members.** The chair of the county board of commissioners shall appoint a five-member county local energy conservation board which includes two elected officials from the county or municipalities within the county, a health professional, the county fuel coordinator and a member of the public. If the county fuel coordinator is not able to sit on the local conservation board, an additional member shall be selected from the public. The county attorney shall advise the local energy conservation board.

For cities of the first class and other designated municipalities, the chair of the city council shall appoint a five-member municipal local energy conservation board which includes two elected city officials, the city fuel coordinator, a health professional, and a member of the public. If the city fuel coordinator is not able to sit on the local conservation board, an additional member shall be selected from the public. The city attorney shall advise the local energy conservation board.

Subp. 3. **Appointments.** Appointments to the local energy conservation board shall be made when an energy supply alert or energy supply emergency is declared. The appointer shall make reasonable efforts to avoid any conflict of interests in appointing the members of the local energy conservation board.

Subp. 4. **Quorum.** Three members shall constitute a quorum. The chair of the local energy conservation board shall be designated by the appointing authority.

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STAT AUTH: MS s \underline{216C.15}
HIST: L 1987 c 312 art 1 s 9
Current as of 01/20/05
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7620.0240 PENALTIES.

Subpart 1. **Statutory penalties.** Penalties for the violation of any provision of the plan are set out in Minnesota Statutes, section 216C.30.

Subp. 2. **Misdemeanor.** Any person who violates the plan or knowingly submits false information in any report required by

the plan shall be guilty of a misdemeanor. Maximum penalty is \$500 or 90 days or both. Each day of violation shall constitute a separate offense.

- Subp. 3. **Enforcement.** The plan may be enforced by injunction, action to compel performance, or other appropriate action in the district court of the county where the violation takes place. The existence of an adequate remedy at law shall not be a defense to such an action.
- Subp. 4. Civil penalties. A court which finds that a person has violated a requirement of the plan or has knowingly submitted false information in any report required by the plan, or has violated a court order issued pursuant to the plan may impose a civil penalty of not more than \$10,000 for each such violation. These funds are payable to the general fund in the state treasury.

STAT AUTH: MS s <u>216C.10</u> HIST: L 1987 c 312 art 1 s 9,10 subd 1 Current as of 01/20/05

7620.0300 LOCATION OF APPEAL.

An appeal shall be delivered by mail or in person to the following location:

- A. An appeal of mandatory measures, except those described in part $\underline{7620.0530}$, items A and B and part $\underline{7620.0610}$, shall be heard by the local energy conservation board and should be directed to the county courthouse, or the mayor's office, whichever is appropriate.
- B. An appeal from a decision not to certify an employer conservation plan and an appeal from an order to implement an employer plan shall be heard by an administrative law judge appointed by the chief administrative law judge and shall be directed to the Office of Administrative Hearings, 5th Floor, Flour Exchange Building, 310 Fourth Avenue South, Minneapolis, Minnesota 55415.
- C. An appeal of an order to curtail delivery of fuel oil, part 7620.0530, item C, or an order to adopt emergency rules for relaxation of environmental standards part 7620.0530, item A, and an appeal of priority status shall be heard by an administrative law judge appointed by the chief administrative law judge and shall be directed to the Office of Administrative Hearings, 5th Floor, Flour Exchange Building, 310 Fourth Avenue South, Minneapolis, Minnesota 55415.

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STAT AUTH: MS s \frac{216\text{C.}10}{40} HIST: L 1984 c 640 s 32; L 1987 c 312 art 1 s 9 Current as of 01/20/05
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7620.0310 CONTENT OF APPEAL.

Subpart 1. Action related to declared energy supply emergency. An appeal from an action taken pursuant to a declared energy supply emergency or under authority of these parts shall be in writing and signed by the appellant. The appeal shall state:

- A. full identification of appellant and where appellant can be located to receive notice of decision;
- B. the action from which the appeal is made, including the individual or unit of government taking the

action, and the date and nature of the action;

- C. the bases of the appeal, including the reasons the appellant believes the action to be unjust or unwise;
- D. the names and addresses of persons known to the appellant who might be adversely or beneficially affected by the outcome of the appeal;
- E. the nature of the relief sought, whether reversal, modification, or some other relief.

Subp. 2. Other appeals. The appeal of a decision not to certify an employer conservation plan or of an order to implement all or any part of an approved conservation plan shall include a description of the existing or proposed conservation programs through which the employer claims compliance with part 7620.0610. In the case of an appeal from a decision not to approve part 7620.0610, subpart 11, item A employer plans (submitted after an energy supply emergency is declared), the appeal shall also contain documentation of the methodology on which the claim of motor fuel savings or program performance is based and a calculation of appellant's baseline consumption.

STAT AUTH: MS s <u>216C.10</u> HIST: L 1987 c 312 art 1 s 9 Current as of 01/20/05

7620.0320 TIMING AND PROCEDURES.

Subpart 1. **Hearing date.** Within three working days after receipt of an appeal, the local conservation board or administrative law judge, whichever is appropriate, shall set a hearing date. The hearing shall be held as soon as practicable but not later than seven working days after receipt of the appeal, unless appellant requests a later hearing date. The chair of the local conservation board (or designate), or the administrative law judge, shall notify all known affected persons, either verbally or in writing, of the appeal and the time and place for the hearing, not less than two working days before the hearing. An appeal shall be considered received when it has arrived at the appropriate location designated in part 7620.0300. A local energy conservation board may convene at any location within its jurisdiction for expediting appeals and decreasing the distance to the hearing for appellants.

- Subp. 2. Administrative Procedure Act. Appeals shall be governed by the Administrative Procedure Act, Minnesota Statutes, chapter 14 and the rules of the Office of Administrative Hearings, parts $\underline{1400.5010}$ to $\underline{1400.8400}$, except that during an energy supply emergency the provisions of parts $\underline{7620.0300}$ to $\underline{7620.0340}$ shall supersede the above-cited rules wherever the two conflict with one another.
- Subp. 3. **Parties.** The parties to an appeal from actions taken during a declared energy supply emergency shall be the appellant and the emergency operating center. Appeals from a decision not to certify an employer or school district conservation plan shall name the assistant commissioner as a party to the appeal.
- Subp. 4. Representation. A party may be represented by counsel.
- Subp. 5. Compliance by appellant. An appellant subject to provisions of these parts must comply with all applicable mandatory measures or requirements pending a final decision on

- the appeal. A final decision shall be made under part 7620.0340. Subp. 6. **Informal disposition.** Informal disposition of an appeal or any issue in an appeal may be made at any point in the proceeding by stipulation, agreed settlement, or consent order between the appellant and the emergency operating center. In the case of employer and school district conservation plans, the assistant commissioner shall have the power to informally dispose of an appeal by agreement or consent order.
- Subp. 7. Appellant's failure to appear. Failure of an appellant to appear after timely notice is sufficient cause for denial of an appeal.
- Subp. 8. Operating center's failure to appear. The failure of the emergency operating center to appear at a hearing of a local energy conservation board on an appeal from an emergency measure shall not constitute a default or bar the commissioner from reversing the board's decision so long as the commissioner complies with the timing provisions in part 7620.0340, subpart 3.
- Subp. 9. **Prehearing conference.** The administrative law judge or local energy conservation board may order a prehearing conference to be held at any time prior to a hearing, if a conference may simplify the issues or provide an opportunity for settlement. If a prehearing conference is ordered, notice of the time and place of the conference shall be served on all parties to the appeal not less than two working days before the date of the conference.
- Subp. 10. Appeals not to be heard. Appeals shall not be heard if received more than ten working days after the termination or expiration of the energy supply emergency.

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STAT AUTH: MS s \underline{216C.10} HIST: L 1984 c 640 s 32; L 1987 c 312 art 1 s 9, c 384 art 2 s 1; 26 SR 391 Current as of 01/20/05
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7620.0330 HEARINGS.

Subpart 1. **Conduct of hearing.** An appellant has a right to a hearing before the local energy conservation board, or the administrative law judge, whichever is appropriate. (See part 7620.0300.) At the hearing the parties may present and cross examine witnesses, and present written evidence, rebuttal testimony and argument with respect to the issue or issues raised in the appeal.

- Subp. 2. **Official record.** The local energy conservation board or the administrative law judge shall prepare an official record of each hearing. A party requesting a verbatim transcript of the hearing shall bear the expense of preparing the transcript.
- Subp. 3. **Procedures.** The chair of the local energy conservation board and the administrative law judge shall use procedures set by the Office of Administrative Hearings at the hearing. The administrative law judge or local conservation board may prohibit devices which interfere with the hearing and may evict persons who disrupt the hearing.

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STAT AUTH: MS s \underline{216\text{C.}15} HIST: L 1984 c 640 s 32; L 1987 c 312 art 1 s 9 Current as of 01/20/05
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7620.0340 DECISION.

Subpart 1. **Basis.** No factual information or evidence which is not part of the record shall be considered by the board or the administrative law judge in deciding an issue in an appeal, except that official notice may be taken of pertinent facts.

Subp. 2. Recommended decision. Within two working days after the hearing is closed, the local conservation board or the administrative law judge shall issue a recommended decision in writing, including the findings and conclusions on which the decision is based. A copy of the recommendation shall be served by first class mail on all parties to the appeal and delivered to the commissioner with the whole record of the appeal. Service is effective on the postmark date.

Subp. 3. **Decision by commissioner.** The commissioner may affirm or reverse a decision of a local conservation board or an administrative law judge or may remand the appeal for further hearing on specified parts. The commissioner must notify the appellant of an intent to reverse or remand a decision within two working days after receipt of the recommended decision. The commissioner shall issue a written statement setting forth the grounds for reversing a recommended decision no later than five working days after receipt of the recommendation, and a copy of the statement shall be served on the appellant and sent to the local conservation board or administrative law judge by first class mail. Failure of the commissioner to give timely notice of intent to reverse or remand a recommended decision will act to automatically affirm the recommended decision.

Subp. 4. **Judicial review.** The appellant may seek judicial review of a final decision of the commissioner in accordance with the Minnesota Administrative Procedure Act, Minnesota Statutes, chapter 14.

STAT AUTH: MS s 216C.15

HIST: L 1984 c 640 s 32; L 1987 c 312 art 1 s 9, c 384 art 2 s 1 Current as of 01/20/05

7620.0400 PRIORITY USES OF FUEL OIL.

Subpart 1. **Purpose.** The priority ranking set out below, and the allocation and conservation measures contained in parts $\frac{7620.0500}{1000}$ to $\frac{7620.0530}{1000}$, are intended to reduce the demand for petroleum products used for heating and power generation and ensure that the necessary fuel requirements of higher priority consumers are met before the lower priority consumers.

Subp. 2. **Priority uses.** In an energy supply emergency resulting from a shortage of fuel oil, highest priority uses are those essential for the health and safety of the citizens of the state. Uses within categories are not ranked by preference.

- A. First priority fuel oil uses are:
 - (1) health and residential care services;
 - (2) residential heating;
 - (3) passenger transportation;
 - (4) plant protection;
 - (5) emergency vehicles;
 - (6) telecommunications;
 - (7) energy production;
 - (8) agriculture;

- (9) sanitation services; and
- (10) essential government services.
- B. Second priority fuel oil uses are those necessary to minimize the economic disruption of a fuel oil shortage. Second priority fuel oil uses are:
- (1) cargo and freight hauling, except for the first priority uses as defined in item A.
- (2) personal motor transportation. Diesel-powered automobiles shall be subject to all the provisions of the motor fuel measures described in parts $\frac{7620.0600}{1000}$ to $\frac{7620.0730}{10000}$.
- C. Third priority uses are those not essential for the immediate health and safety of the citizens of the state. These include:
 - (1) schools and religious institutions;
- (2) government, except those services listed in item A;
- (3) commerce, except those services listed in item A;
- (4) industry, except those services listed in item ${\bf A}.$
- D. In an energy supply emergency, suppliers shall be requested to deliver fuel oil to higher priority consumers before lower priority consumers, where no practicable substitute fuels are available.
- E. Vehicles considered to be transporting agricultural products must have the words "first priority agricultural product" on their bill of lading or must be visibly transporting first priority agricultural products.
- F. Fuel oil users may apply for state set-aside product if fuel oil becomes otherwise unobtainable, according to state set-aside application procedures developed according to Minnesota Statutes, section $\underline{216C.16}$. Preference shall be given higher priority consumers over lower priority consumers in the assignment of state set-aside product.

STAT AUTH: MS s $\underline{216C.15}$ HIST: L 1987 c $3\overline{12}$ art 1 s 9,10 subd 1 Current as of 01/20/05

7620.0410 PRIORITY USES OF MOTOR FUEL.

Subpart 1. **Purpose.** The priority ranking set out below and the supply management and conservation measures contained in parts $\frac{7620.0600}{1}$ to $\frac{7620.0730}{1}$ are intended to reduce the demand for motor fuels and ensure that the necessary fuel requirements of first priority consumers are met before lower priority consumers.

- Subp. 2. **Priority uses.** In an energy supply emergency resulting from a shortage of gasoline, diesel fuel, or other petroleum product used as a motor fuel, higher priority uses are those necessary for protecting the health and safety of the citizens of the state, and minimizing the economic disruption of the state's economy. Uses within priority categories are not ranked according to preference.
 - A. First priority motor fuel uses are:
 - (1) military uses;
 - (2) emergency vehicles;

- (3) energy production;
- (4) sanitation services;
- (5) telecommunications;
- (6) agriculture;
- (7) passenger transportation;
- (8) cargo, freight, and mail hauling, including newspaper deliveries; and
 - (9) aviation ground support vehicles.
- B. Exemptions granted in parts $\frac{7620.0600}{1}$ to $\frac{7620.0730}{1}$ are based on the above list of first priority uses.
- C. First priority consumers may apply for state set-aside product as provided by Minnesota Statutes, section 216C.16, if fuel supplies become otherwise unavailable. Applications for state set-aside shall be made according to set-aside application procedures adopted according to Minnesota Statutes, section 216C.16. Preference shall be given first priority motor fuel consumers in assignment of state set-aside product.
- D. Users claiming an exemption under these parts or operating a vehicle under an exempt status must do so in good faith. Abuse of a vehicle's exemption status will constitute a violation of these parts and subject the user to the penalties described in part 7620.0240.
- E. When a motor fuel is also used as a home heating fuel and that specific fuel is in short supply, the fuel oil priority rankings described in part 7620.0400 shall apply.

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STAT AUTH: MS s \underline{216C.15} HIST: L 1987 c 312 art 1 s 9,10 subd 1 Current as of 01/20/05
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7620.0420 SEVERE SHORTAGE.

If the commissioner determines that the supply shortfall of petroleum and petroleum products is so severe that the existing production and distribution system is incapable of providing adequate supplies to all first priority consumers of motor fuel or diesel fuel, then the commissioner shall advise the governor that deliveries to otherwise priority consumers be curtailed, so that higher priority consumers will be provided the necessary fuel to continue essential operations. The governor may order the curtailment of priority consumers when in the governor's judgment, the available supply best serves to preserve the health and safety of the citizens of the state when put to a higher priority use.

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STAT AUTH: MS s <u>216C.15</u>
HIST: L 1987 c 312 art 1 s 9
Current as of 01/20/05
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7620.0500 DECLARATION AND SELECTION OF MEASURES.

Upon declaration of an energy supply emergency for petroleum, the governor shall select from the following measures in parts $\frac{7620.0510}{100}$ to $\frac{7620.0530}{1000}$ to reduce the shortage of fuel oil.

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STAT AUTH: MS s <u>216C.15</u>
HIST: L 1987 c 312 art 1 s 9
Current as of 01/20/05
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7620.0510 VOLUNTARY MEASURES.

Subpart 1. Homeowners and renters. Homeowners and renters shall be requested to turn their thermostats back to between 62 degrees Fahrenheit and 66 degrees Fahrenheit during the day and 60 degrees Fahrenheit and 58 degrees Fahrenheit during the night and unoccupied hours, and shall be requested to set back water heater thermostats to between 105 degrees Fahrenheit and 115 degrees Fahrenheit (or the lowest setting). Residences occupied by persons for whom such a measure endangers health shall be warned not to comply with this measure. Such persons include the elderly and sick and children under the age of one.

- Subp. 2. Conservation targets. Voluntary industrial, commercial, government, and residential conservation targets shall be established to reduce energy usage, including electricity and natural gas, especially during periods of peak usage.
- Subp. 3. **Reducing hours.** Commercial and industrial establishments shall be requested to reduce their hours of operations where this action saves energy.
- Subp. 4. Releasing fuel oil. Commercial and industrial users shall be requested to release fuel oil from inventory supplies. The procedures for state set-aside allocation adopted according to Minnesota Statutes, section 216C.16 will be used to allocate voluntarily released inventory. Suppliers shall be directed to deliver fuel oil supplies consisting of voluntary releases according to the system of priorities described in part 7620.0400, subpart 2.
- Subp. 5. **Closing buildings.** Business, industrial, and government institutions shall be requested to close nonessential buildings.
- Subp. 6. **Public information.** Public information efforts shall be used to instruct Minnesotans in fuel oil-, natural gas-, and electricity-saving measures. Regular information updates regarding the status and severity of the shortage shall be issued.

STAT AUTH: MS s $\underline{216C.15}$ HIST: L 1987 c $3\overline{12}$ art 1 s 9,10 subd 1 Current as of 01/20/05

7620.0520 MANDATORY MEASURES.

Subpart 1. Compliance with federal regulations.

Commercial buildings shall be ordered to comply with the standards that were set in the Emergency Building Temperature Restrictions (EBTR), Code of Federal Regulations 1979, title 10, part 490. Buildings which were exempted under EBTR are exempted from this part.

- Subp. 2. **No smoking; reduced ventilation.** Smoking within buildings shall be prohibited and reduction of the amount of outside air entering the building ventilation systems may be ordered.
- Subp. 3. **Electric utilities measures.** Electric utilities with oil-fired generating facilities which are members of the mid continent area power pool shall be ordered to use oil of a quality not suitable for home heating or to shut down these plants and purchase power from the pool when power from nonpetroleum-fired generating facilities is available from the pool.

- Subp. 4. **Slowed deliveries of fuel oil.** Fuel oil suppliers shall be ordered to stop deliveries to large users (1,000 gallon or larger storage tanks) until those users have less than one week's fuel oil supply on hand.
- Subp. 5. Conversion to residual oil. Business, industrial, and government institutions which now burn middle distillate, natural gas, or propane and which have the capacity to burn residual oil shall be ordered to convert to residual oil during the emergency, unless such action is specifically prohibited by other law or rule of the Minnesota Pollution Control Agency or other agency. Each firm or institution required to convert to residual oil shall be notified at least ten days prior to the effective date of the measure of the state's intent to implement this measure.

STAT AUTH: MS s <u>216C.15</u> HIST: L 1987 c 312 art 1 s 9 Current as of 01/20/05

7620.0530 MEASURES FOR SEVERE SHORTAGES.

When the department determines that actions listed in parts $\frac{7620.0510}{10}$ and $\frac{7620.0520}{10}$ have not been or will not be sufficient to eliminate the shortage the following measures may be selected by the governor:

- A. Owners/operators of commercial, industrial, and government buildings shall be ordered to reduce heating thermostats to 62 degrees Fahrenheit during the day where such action does not violate part $\underline{5205.0110}$, subpart 3 of the Department of Labor and Industry, and 50 degrees Fahrenheit at night or during unoccupied periods.
- B. Emergency rules shall be ordered adopted or rules may be ordered suspended to relax environmental standards, where such action would yield significant fuel oil savings.
- C. Delivery of fuel oil supplies to specific industrial sectors, including commerce and government, shall be ordered to be curtailed according to the following criteria. A curtailment order shall be in writing signed by the division director, and shall be delivered by registered mail to firms in the industrial sectors and area suppliers at least ten days prior to the effective date of the measure.
- (1) Order of curtailment will be based on an industry's energy labor ratio, defined as the sum of natural gas and fuel oil consumption Btu's per year per employee. The industrial sector with the highest energy labor ratio will be the first to be curtailed, and so on. Such action will be rescinded in reverse order according to the industry's energy labor ratio.
- (2) First priority uses under part $\underline{7620.0400}$, subpart 2 will be the last to be curtailed. Second priority uses will be curtailed after third priority uses.
- (3) A firm within an industrial sector may be exempted from curtailment of fuel oil deliveries if it can demonstrate that its energy labor ratio is significantly below the industry average of the industrial sector because of conservation or conversion efforts. Exceptions may be granted on appeal pursuant to parts 7620.0310 to 7620.0340.
- (4) A firm's energy labor ratio shall be determined by dividing the consumption of natural gas and fuel

oil per employee by the ratio of its local degree days to the statewide average degree days of 8,400. The 30-year average of degree days shall be used.

- (5) The order of curtailment and energy labor ratios for industrial sector groupings and associated standard industrial classification codes will be compiled by the department and published biennially in the State Register during the month of October.
- D. Homeowners and renters may be requested to close homes and move in with friends, relatives, or into emergency shelters. The emergency operating center shall assist in this effort by designating shelters, aiding in securing homes, and providing emergency transportation.
- E. Actions available for implementation under parts 7620.0510 and 7620.0520 will remain available under this part.

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STAT AUTH: MS s \underline{216C.15}
HIST: L 1984 c 6\overline{40} s 32; L 1987 c 312 art 1 s 9 
Current as of 01/20/05
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7620.0540 SELECTION OF MOTOR EMERGENCY MEASURES.

Upon declaration of an energy supply emergency based upon a petroleum shortage, the governor shall select from the following measures to reduce a motor fuel shortage.

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STAT AUTH: MS s <u>216C.15</u>
HIST: L 1987 c 312 art 1 s 9
Current as of 01/20/05
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7620.0600 PUBLIC INFORMATION MEASURE.

Subpart 1. **Purpose.** This measure is intended to conserve motor fuel through voluntary public conservation in response to a declared energy emergency, and through broad public application of vehicle efficiency improvements and ridesharing promoted through public service announcements, conservation demonstrations, and dissemination of energy-related literature

- Subp. 2. **News releases.** The emergency operating center shall prepare and issue news releases to news media throughout the state containing at least the following:
- A. the specific cause or causes of the gasoline or petroleum shortage;
- B. estimates by the department of the shortfall of supplies expected for Minnesota;
- C. estimates by the department of the probable duration of the energy emergency; and
- D. a list of specific actions taken and measures imposed to reduce shortage.
- Subp. 3. **Diesel-powered automobiles.** Owners and operators of diesel-powered automobiles may be requested to substantially reduce or discontinue use of their diesel vehicles during severe fuel oil shortages.
- Subp. 4. **Literature.** The emergency operating center shall make available to large worksites, schools, and local energy coordinators, literature which relates vehicle fuel economy to driving practices and vehicle maintenance.
- Subp. 5. **Public service announcements.** The emergency operating center shall provide public service announcements to the media which emphasize the importance of individual and

corporate efforts in conserving motor fuel and provide specific conservation tips.

STAT AUTH: MS s <u>216C.15</u> HIST: L 1987 c 312 art 1 s 9 Current as of 01/20/05

7620.0610 EMPLOYER-BASED MOTOR FUEL CONSERVATION MEASURE.

Subpart 1. **Purpose.** The purpose of this measure is to conserve motor fuel by requiring certain employers to reduce employee commuting and business-related motor fuel consumption in an energy supply emergency. The department shall inform affected employers before May 25, 1983, of the requirements for participating in the employer-based conservation measure. The governor may not implement this measure before May 25, 1983.

Subp. 2. **Scope.** The following employers are required to comply with the provisions of this measure:

- A. employers who have employment sites where 100 or more persons are employed during the course of any 24-hour period during a normal work week;
- B. all educational institutions at the postsecondary school level with a total combined student faculty commuting population of 200 or more persons, including colleges, universities, and technical colleges; and
- C. state, county, and municipal governments who have employment sites where 50 or more persons are employed.

Employers having fewer employees at a location shall be encouraged to adopt strategies listed under this subpart or implement any other conservation activity which reduces employee-commuting and business-related motor fuel consumption.

- Subp. 3. **Technical assistance.** Technical assistance in the preparation of emergency motor fuel conservation plans will be provided by the department upon request.
- Subp. 4. **Employer plans.** Employer plans may be submitted to the department for each applicable site or in conjunction with a business consortium, community, local, municipal, or county-wide plan, so long as each employer subject to this part identifies the conservation strategies adopted for each work site and the program elements listed under subpart 9.

Employers may choose to submit energy conservation plans to the department before the declaration of an energy emergency in the form and manner provided in subpart 5 or 6.

Subp. 5. Employer emergency motor fuel conservation plan. Employers may submit an emergency motor fuel conservation plan that demonstrates how employee-commuting and business travel motor fuel consumption would be reduced during an energy supply emergency. The employer may choose conservation strategies which achieve the required reduction.

Employer plans must contain conservation strategies which taken together would reduce an employer's baseline consumption by 15 percent.

Employers submitting self-styled emergency motor fuel conservation plans shall include a calculation of their baseline consumption as defined in part $\frac{7620.0100}{6000}$, the expected motor fuel savings attributed to the selected strategies, and the plan elements described in subpart 9.

Employers will be credited for travel reduction actions taken prior to submission of their plans that yield ongoing fuel

savings.

The assistant commissioner may decline to certify an employer plan submitted under this paragraph which fails to support the level of savings attributed to each of the proposed activities. Self-styled employer plans may contain any of the strategies provided in subpart 6.

Subp. 6. Employer motor fuel reduction strategies.
Employers shall select at least four strategies from the categories I and II, but in no case less than one from category I.

Subp. 7. Category I. Category I strategies:

- A. Establish a carpool program for employees. An employer rideshare program may be independently sponsored or provided in conjunction with a local or community ridesharing program. A rideshare program must minimally provide for: promotion of ridesharing through company bulletins, advertisements, and policies; the capability to match employees to carpools through ride boards, computer listings, or other methods which provide information necessary to match rideshare applicants; and a rideshare coordinator who will be responsible for the sponsored program.
- B. Sponsor an employee vanpool program. An employer may purchase, rent, lease, or otherwise provide employees with vans for commuting to and from work. The employer may demonstrate an equivalent level of employee participation in an independent or employee-owned vanpool, but in any case shall maintain a participation rate of at least seven percent of total employment to qualify as providing a vanpool program.
- C. Provide an auxiliary transportation service (e.g., subscription bus or shuttle service) or participate in a consortium of two or more employers to provide the service. A qualifying auxiliary transportation service shall consist of vehicles with a minimum carrying capacity of 20 passengers, a participation rate of 50 percent of employees who live within a three-mile radius of the work site, or the equivalent number, and at least one commuter check point at least five miles from the work site.

Employer-sponsored rideshare programs which fulfill the requirements of subpart 7 will be certified by the department. Employers may issue "identifying" rideshare stickers to qualifying employees' vehicles. Rideshare vehicles will be eligible to purchase fuel as priority vehicles under the flag system described in part $\frac{7620.0650}{1000}$ and will be exempt from the odd-even purchase restriction described in part $\frac{7620.0630}{1000}$.

Subp. 8. Category II. Category II strategies:

- A. Adopt and enforce a parking management strategy which provides for preferential parking for high-occupancy vehicles in employer parking lots or subsidizes at least 20 percent of the cost of contract parking in independently operated parking facilities for employee carpools, or both.
- B. Prohibit the use of company-owned vehicles for single occupancy commuting and adopt a policy of using company vehicles for employee carpools.
 - C. Purchase an electric or electric hybrid vehicle.
- D. Promote transit use by employees through direct sale of transit passes at the work site, fare subsidies, or display of direct and connecting routes serving the work site.
 - E. Provide facilities which promote employee

commuting by bicycle or moped. These facilities might include indoor or sheltered bicycle parking, high security bicycle parking, showers and dressing areas for bikers.

- F. Participate with a rideshare agency to provide jitney service to persons requesting travel to a destination on or near the route taken for business purposes. An employer-owner or employee-owned vehicle used for business purposes may be used for the jitney service.
 - G. Institute flexible or staggered work hours.
- H. Participate in an independently sponsored truck and bus fuel economy project which offers both energy-conscious driver education and instruction on fuel-economizing vehicle maintenance and accessories. Employers choosing this strategy must maintain a fleet of at least ten vehicles used for cargo and freight hauling.
- Subp. 9. Content of conservation plan. An employer submitting an emergency motor fuel conservation plan according to subpart 5 or 6 shall identify in its plan the following:
- A. the carpool, vanpool, or subscription bus program sponsored or subscribed to, and an estimate of the number of employees currently using and expected to use such services;
- B. title of the person or persons responsible for supervising each plan component;
- C. the internal media to be used to inform employees of the employer's program;
- D. the administrative assistance and in-house resources that the employer will provide for employee ridesharing services;
- ${\tt E.}$ the schedule for implementing chosen strategies; and
- F. the personnel (by title or position) that will perform essential plant protection for the firm during a driving ban.
- Subp. 10. Employers actions upon governor's order. Employers shall institute all strategies contained in an approved employer conservation plan when the governor orders the employer-based motor fuel conservation measure.
- Subp. 11. **Employers without conservation plan.** Employers who do not have an approved emergency motor fuel conservation plan before the declaration of an energy supply emergency for motor fuel shall:
- A. submit to the department within 15 days after declaration of an energy supply emergency for motor fuel a plan to reduce baseline consumption by at least 15 percent over a period of three months or longer; or
- B. institute a compressed work week pursuant to an executive order of the governor that designates the weekday on which employers not qualifying under subpart 5, 6, or 11, item A, shall not perform or have an employee perform any activity related to the business except where:
- (1) business- or employment-related activity can be performed at an employer's or employee's place of residence;
- (2) activities required in certain industrial processes must operate continuously to prevent long-term or irreparable damage to a system or process; and
- (3) plant protection requires a minimum level of attention or surveillance.
 - C. the following businesses or governmental

activities shall be exempt from a compressed work week regardless of subpart 11:

- (1) public or private services essential to public health and safety such as health and residential care facilities, medical facilities, law enforcement activities, and emergency services;
 - (2) agriculture;
 - (3) energy production;
 - (4) telecommunications; and
 - (5) sanitation services.

Subp. 12. **Public announcement.** The emergency operating center shall publicly announce the implementation of the employer-based conservation measure at least ten days prior to the effective date of the measure.

STAT AUTH: MS s $\underline{216C.15}$ HIST: L 1987 c 258 s 12, c 312 art 1 s 9; L 1989 c 246 s 2 Current as of 01/20/05

7620.0620 SCHOOL CONSERVATION MEASURE.

Subpart 1. **Purpose.** The purpose of this measure is to conserve motor fuel by requesting schools to adopt strategies to reduce student commuting and school-sponsored activities in an energy supply emergency.

- Subp. 2. **Scope.** Each school district, as defined by the Education Code, Minnesota Statutes, chapters 120 to 129, and nonpublic schools, as defined in Minnesota Statutes, section 123B.41, subdivision 9, which have a combined student staff population of 100 persons or more, is requested to comply with this measure.
- Subp. 3. Submission of conservation plan. School boards are requested to voluntarily submit to the department before April 1, 1984, or within 45 days after declaration of an energy supply emergency, whichever comes first, an emergency motor fuel conservation plan as defined in subpart 4 or 5.
- Subp. 4. School emergency conservation plan: option A. School districts may submit a self-styled conservation plan including any conservation strategies that taken together would have an objective of reducing baseline consumption by approximately 15 percent during an energy supply emergency.

Self-styled conservation plans are requested to include:

- A. a calculation of the baseline consumption, defined in part $\frac{7620.0100}{100}$, subpart 4;
- B. the expected motor fuel savings attributed to each selected strategy; and
 - C. the plan elements described in subpart 6.

School districts will be credited for travel-reduction actions taken prior to submission of their plans that yield ongoing motor fuel savings.

- Subp. 5. School emergency conservation plan: option B reduction strategies. Option B reduction strategies:
- A. School districts are requested to select at least three strategies from the following categories, with at least one strategy being from category I.
 - B. Category I strategies consist of:
- (1) Prohibiting student parking on school grounds and requesting local authorities to pass or enforce parking restrictions in areas adjacent to a school for the duration of

the emergency. Exemptions from the parking prohibition may be granted to students who: have no alternative transportation to school, have special medical needs that prevent use of alternative methods of traveling to school, have job requirements that demand access to automobile transportation, or are members of a carpool registered with the school rideshare coordinator.

- (2) Postponement or cancellation of extracurricular activities, including athletic events, until the termination of an energy supply emergency for motor fuel.
- (3) Cancellation of two school days for each 30-day declared energy emergency period.
 - C. Category II strategies consist of:
- (1) Establishment or sponsorship of a student/staff rideshare program. A student/staff rideshare program may be organized independently or in conjunction with a local or community rideshare program. It is recommended that a rideshare program provide for: promotion of ridesharing through school policies and newspapers or other publications, the capability to match students or staff carpools through ride boards, manual or computer listings, or other methods which provide information necessary to match rideshare applicants, and a school rideshare coordinator who will be responsible for the school ridesharing program.
- (2) Adoption and enforcement of a parking management strategy which gives preferential parking to high-occupancy vehicles in student parking lots or requires fees for parking on school grounds.
- (3) Provision of indoor or sheltered bicycle parking with a capacity for at least five percent of the student body.
- (4) Elimination of on the road driver education for the period of the emergency.
- (5) Cancellation or rescheduling of some extracurricular activities. Selection of this strategy is not encouraged if category I, strategy (2) has been chosen and applies when the governor orders the school conservation measure.
- (6) Participation in an independently sponsored school bus fuel economy program.
- Subp. 6. Contents of school district conservation plans. Emergency motor fuel conservation plans submitted by school districts are requested to include:
- A. the title of the person or position responsible for implementing the plan during an energy supply emergency for motor fuel;
- B. the internal media to be used to inform school staff and students of a school district program measure; and
- C. the implementation schedule for category II, strategies (1), (2), (3), and (6).

STAT AUTH: MS s $\underline{216C.15}$ HIST: L 1987 c 312 art 1 s 9; L 1998 c 397 art 11 s 3 Current as of 01/20/05

7620.0630 ODD-EVEN PURCHASE REQUIREMENT MEASURE.

Subpart 1. **Purpose.** The purpose of the odd-even purchase requirement is to conserve motor fuel and facilitate the orderly purchase of motor fuel by alternating the days of purchase

eligibility.

Subp. 2. **Scope.** Retail sales and purchases of motor fuel shall be restricted to even-numbered days of the month for persons in possession of vehicles whose license plate numbers end in one of the even digits 0, 2, 4, 6, 8; and to odd-numbered days of the month for persons in possession of vehicles whose license plate numbers end in the odd digits 1, 3, 5, 7, and 9.

Specialty and personalized license plates which display no ending numeral are deemed to be "odd" for purposes of the purchase requirement.

The restrictions in this part shall not apply on the 31st day of any month or on the 29th day of February in a leap year.

- Subp. 3. **Exemptions.** The following vehicles shall be exempt from the odd-even purchase requirement (motor fuel may be purchased for them on any day of the week):
- A. Vehicles being driven for any first priority use defined in part 7620.0410. For the odd-even purchase requirement, vanpools will be those vehicles either displaying a "vanpool" designation issued by a vanpool leasing agency, vanpool services agency, or employer, or carrying at least eight passengers on a work commuting trip.
- B. Ridesharing vehicles identified by employers with state certified conservation plans, as described in subpart 7.
- C. Commercial vehicles, as defined in part $\frac{7620.0100}{9}$, subpart 9.
- D. Vehicles operated by a handicapped person and displaying a handicapped license plate or other special identification.
 - E. Vehicles with out-of-state license plates.
 - F. Motorcycles and mopeds.
 - G. Vehicles not licensed for highway use.
- H. Vehicles held for sale by a licensed motor vehicle dealer in the ordinary course of business.
- I. Vehicles being operated by individuals under emergency circumstances which in the judgment of the retailer demand an exception. If such an exception is granted by the retailer, the license number and signature of the person granted the exception shall be obtained.

STAT AUTH: MS s <u>216C.15</u> HIST: L 1987 c 312 art 1 s 9 Current as of 01/20/05

7620.0640 MINIMUM PURCHASE REQUIREMENT MEASURE.

Subpart 1. **Purpose.** The purpose of this measure is to decrease vehicle lines at motor fuel retail outlets by reducing the frequency of fill ups.

Subp. 2. **Measure requirements.** Motor fuel shall not be sold, dispersed, or otherwise transacted by a motor fuel retailer for use in any vehicle unless the amount transacted and dispersed is at least five gallons. In the event the quantity purchased is less than the five-gallon minimum, the purchaser shall pay the retailer an additional amount so that the total transaction price is equal to the stated pump price times the five-gallon minimum.

In any single transaction, not more than six gallons of motor fuel may be sold or dispensed into a container, other than the fuel tank of a vehicle, to be transported away from the

premises of the retail seller. Such containers must meet applicable safety requirements.

- Subp. 3. **Display of notice.** A person selling motor fuel in transactions to which provisions of this part apply shall display at the point of sale notice of such provisions.
- Subp. 4. **Compliance required.** Both the motor fuel retailer and the vehicle operator are required to comply with the provisions of this part.
- Subp. 5. **Exemptions.** The following users are not required to purchase a minimum amount:
- A. Vehicles being driven for first priority uses, as defined in part 7620.0410. For the minimum purchase requirement, vanpools are those vehicles either displaying a "vanpool" designation issued by a vanpool-leasing agency or vanpool services agency, or carrying at least eight passengers on a work-commuting trip.
- B. Motorcycles and mopeds and similar three-wheeled vehicles.
 - C. Out-of-state licensed vehicles.
- D. Vehicles held for sale or lease by licensed motor vehicle dealers in the ordinary course of business.
- E. Vehicles being operated by individuals under emergency circumstances which in the judgment of the retailer demand an exception. If such an exception is granted by the retailer the license number and signature of the person granted the exception shall be obtained.

STAT AUTH: MS s $\underline{216C.15}$ HIST: L 1987 c 312 art 1 s 9 Current as of 01/20/05

7620.0650 FLAG REQUIREMENT FOR MOTOR FUEL RETAILERS.

Subpart 1. **Purpose.** The purposes of this measure are to signal to motorists availability of motor fuel for purchase at stations through the display of flags and to permit retailers to limit sales to priority users only.

- Subp. 2. **Requirement.** Each motor fuel retail station shall clearly indicate its motor fuel supply and servicing status by displaying a flag of one of the three colors listed below:
- A. A green flag indicates that motor fuel is available to the public subject to the purchase restrictions imposed by these parts. A station flying a green flag cannot show preference to any customer, except that emergency vehicles may be allowed to move to the front of an existing line to be fueled.
- B. A yellow flag indicates that motor fuel is available only to first priority vehicles, as defined in part 7620.0410, and to ridesharing vehicles which have been identified by employers according to the terms and provisions of a state-certified conservation plan, as described in part 7620.0610. A station flying a yellow flag shall not show preference in the sale of motor fuel to any priority vehicle.
- C. A red flag indicates a station is out of fuel and/or is closed. No motor fuel may be dispensed from a station flying a red flag, except to emergency vehicles, as defined in part 7620.0100, subpart 19.
 - Subp. 3. Description of flag; location. Flags shall be

square and at least two feet by two feet but no greater than three feet by three feet in size. They shall be made of cloth or plastic. Flags shall be located on the boulevard or near enough to the street to allow visibility of at least 100 yards in each direction of the station.

STAT AUTH: MS s <u>216C.15</u> HIST: L 1987 c 312 art 1 s 9 Current as of 01/20/05

7620.0660 MOTOR FUEL AVAILABILITY MEASURE.

Subpart 1. **Purpose.** The purpose of this measure is to assure that motor fuel is available for purchase at key locations throughout the state 24 hours a day and that these locations and their hours of operation are locally publicized.

Subp. 2. **Set-aside product assignment.** Motor fuel retailers who have historically remained open 24 hours a day and provided emergency road service may apply for state set-aside product assignment according to the state set-aside application procedures authorized by Minnesota Statutes, section 216C.16.

Subp. 3. **Publicity.** The emergency operating center shall publicize the location of the stations participating in the availability program in local newspapers. This information will also be supplied to the AAA of Minnesota (American Automobile Association) and the Economic Development Division's Tourist Information Center, both of which provide motor fuel availability information.

STAT AUTH: MS s $\underline{216C.15}$ HIST: L 1987 c $3\overline{12}$ art 1 s 9,10 subd 1 Current as of 01/20/05

7620.0670 STRICT ENFORCEMENT OF POSTED HIGHWAY SPEED LIMITS.

Subpart 1. **Purpose.** The purpose of this measure is to conserve motor fuel by strictly enforcing the current maximum speed limit on state highways.

Subp. 2. **Speed limit.** Motorists shall strictly obey the maximum legal speed limit. Violations of the maximum legal speed limit during a declared energy supply emergency shall be subject to the additional penalties provided in part 7620.0240.

Subp. 3. **Governor's request.** The governor shall request state, county, and municipal law enforcement agencies to intensify speed limit enforcement through personnel assignments and increased road surveillance.

STAT AUTH: MS s $\underline{216C.15}$ HIST: L 1987 c 312 art 1 s 9 Current as of 01/20/05

7620.0700 ORDERING.

When the department determines that the measures listed in parts $\frac{7620.0600}{1}$ to $\frac{7620.0670}{1}$ have not eliminated or will not eliminate the shortage of motor fuel, the governor may order any of the following measures.

STAT AUTH: MS s $\underline{216C.15}$ HIST: L 1987 c 312 art 1 s 9 Current as of 01/20/05

7620.0710 VEHICLE PERMIT STICKER MEASURE.

Subpart 1. **Purpose.** This measure is intended to conserve motor fuel by prohibiting the use of vehicles for one day per week.

Subp. 2. Applicability. Vehicle owners shall apply to the Department of Public Safety for a no-driving-day designation permit sticker. The applicant may select any day (Monday through Sunday) as the no-driving day for the applicant's vehicle but must choose the same day for all vehicles owned. The owner must prominently display the sticker on each vehicle owned and driven during the term of this measure.

A vehicle rented or leased for a period exceeding seven days shall be considered owned by the lessee for purposes of this measure.

Upon the effective date of the vehicle permit sticker requirement, all Minnesota-licensed motor vehicles subject to the requirement must display a permit sticker in the lower right hand corner of the front windshield.

Subp. 3. **Exemptions.** The following are exempt from provisions of this part:

- A. vehicles being driven for any first priority use defined in part 7620.0410;
- B. vehicles held for sale or lease by a licensed motor vehicle dealer in the ordinary course of business;
 - C. motorcycles and mopeds;
 - D. short term rental vehicles; and
 - E. such other vehicles as the governor may determine.

Subp. 4. **Sticker.** Vehicle owners operating a motor vehicle under one of the qualifying exemptions listed in subpart 3 must apply to the Division of Driver and Vehicle Services (DDVS) of the Department of Public Safety for an exempt sticker. Exempt stickers issued by the DDVS must be prominently displayed on the vehicle for which the exempt permit was issued.

Subp. 5. Rental agencies. Vehicle rental agencies must apply for exempt stickers for vehicles rented for periods less than one week. Upon approval of a rental agency's application, DDVS will exempt stickers for designated rental vehicles. Vehicles rented or leased for use predominantly in Minnesota for periods exceeding seven days must be registered by the lessee.

Subp. 6. **Waivers.** The governor may waive the requirement for the display of exempt permit stickers for any vehicle class listed under subpart 3.

STAT AUTH: MS s <u>216C.15</u> HIST: L 1987 c 312 art 1 s 9; 17 SR 1279 Current as of 01/20/05

7620.0720 SPEED LIMIT REDUCTION MEASURE.

Subpart 1. **Purpose.** This measure is intended to conserve motor fuel by reducing the maximum speed limit on all highways in Minnesota.

Subp. 2. Lower speed limit. The governor upon the advice of the department shall order the commissioner of transportation to set a lower speed limit on all highways in Minnesota. The commissioner of transportation shall lower the speed limit during an energy supply emergency pursuant to Minnesota Statutes, section 169.141.

- Subp. 3. **Violations.** Violation of the maximum limit during an energy supply emergency for motor fuel shall carry the additional penalties as provided in part 7620.0240.
- Subp. 4. **Governor's request.** The governor may request state, county, and municipal law enforcement agencies to intensify speed limit enforcement activities through personnel assignments and increased road surveillance efforts.

STAT AUTH: MS s $\underline{216C.15}$ HIST: L 1987 c $3\overline{12}$ art 1 s 9 Current as of 01/20/05

7620.0730 DRIVING BAN MEASURE.

Subpart 1. **Purpose.** This measure is intended to conserve motor fuel by prohibiting the use and operation of all nonexempt motor vehicles for a specified 24-hour period.

- Subp. 2. **Ordering.** Upon the department's determination that a 24-hour driving ban is necessary to reduce the demand for motor fuel, the governor may order an emergency driving ban. Upon the governor's order, the division director shall issue the order and a statement to the news media to be promptly disseminated and brought to the attention of the public. The statement shall state the designated date of the ban, the emergency services which will remain available during the ban, the enforcement actions to be taken, and the penalties imposed for violation of the ban. The statement shall be released at least five days prior to the imposition of the driving ban.
- Subp. 3. **Unlawful public road use.** It shall be unlawful for anyone to operate a Minnesota registered and licensed motor vehicle on public roads during the period of driving ban.
- Subp. 4. **Exemptions.** The following motor vehicle uses shall be exempt from a driving ban:
 - A. emergency vehicles;
 - B. sanitation services vehicles;
 - C. aviation ground support vehicles;
- D. vehicles identified as required in part $\frac{7620.0620}{1}$, subpart 7, item F and used by employees in commuting for the purposes of plant protection;
- E. vehicles used in providing or transporting employees for emergency medical care, residential care, telecommunications services, energy production, and news reporting;
- F. individuals who require daily medical treatment; and
 - G. out-of-state licensed vehicles.
- Subp. 5. **Sticker or card.** Any vehicle registered and licensed by the state of Minnesota and operated during a driving ban shall prominently display a sticker or card that clearly identifies that vehicle as exempt. The governor may waive this requirement for any category of exempted user, for example, police, fire, ambulance, or aviation ground support vehicles.
- Subp. 6. **Guidelines.** The department will issue guidelines for identification of exempt vehicles prior to a driving ban.

STAT AUTH: MS s $\underline{216C.15}$ HIST: L 1987 c 312 art 1 s 9 Current as of 01/20/05

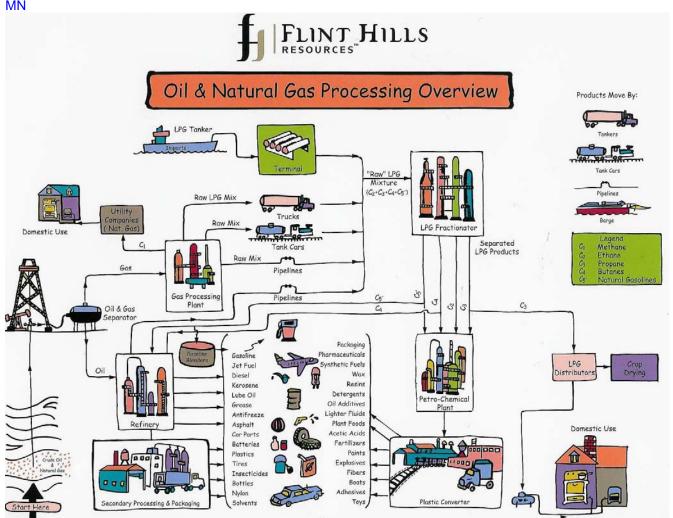
Appendix IV - Additional Energy Resource Information and Maps

Minnesota-Based Oil Refineries

Name	Primary Telephone	Other Telephone	Address
Allied Oil Company	651 459-1419		300 3rd St Saint Paul Park, MN 55071
Flint Hills Resources, Pine Bend Refinery	651-437-0584		P.O. Box 64596 St. Paul, MN 55164-0596 (Junction Rts. 52 & 55, Inver Grove Heights, MN 55077
Marathon Ashland Petroleum LLC	651 459-9771	800-328-1632	300 3rd St St Paul Park, MN 55071

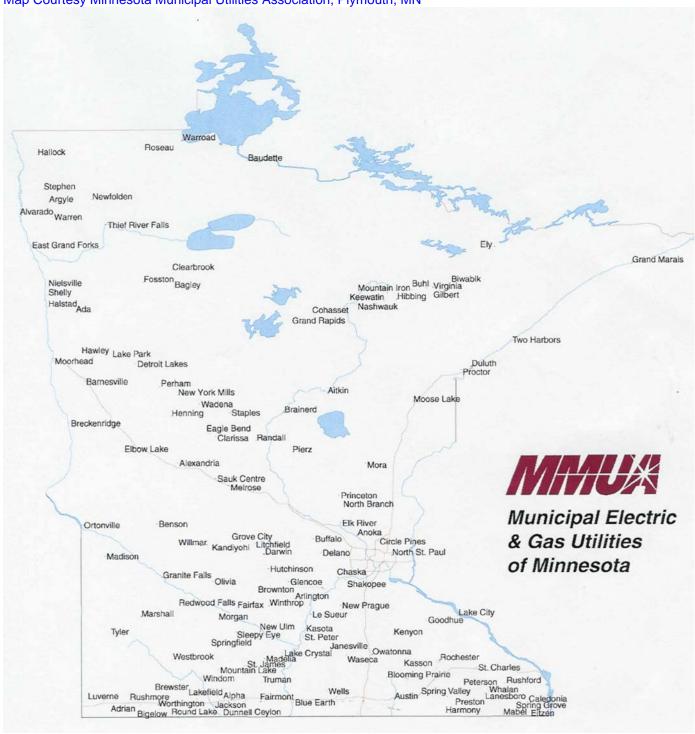
Flint Hills Oil & Natural Gas Processing Diagram

Diagram courtesy Northern Tier Public Affairs Office, Flint Hills Resources, St. Paul, MN



Map of Minnesota Municipal Electric and Gas Utilities

Map Courtesy Minnesota Municipal Utilities Association, Plymouth, MN



Minnesota Rural Electric Distribution Cooperatives

2004 Electric Utility Qualifying Facilities Report

Company	# Net Metering	Generation (kWh)	NEG (kWh)	# Large Facilities	Generation (kWh)	NEG (kWh)
Agralite*	1	20,956	20,956	0	0	0
Arrowhead	0	0	0	0	0	0
Beltrami	0	0	0	0	0	0
Benco*	5	64,088	64,088	0	0	0
Brown County*	1	17,550	17,550	0	0	0
Clearwater-Polk	0	0	0	0	0	0
Connexus*	8	11,708	11,708	0	0	0
Coop L&P	0	0	0	0	0	0
Crow Wing	1	7.140	4.380	0	0	0
Dakota Electric	8	45,727	3,365	0	0	0
East Central	0	0	0	1	1,053,680	481,240
ederated Rural	1	31.460	22.150	0	0	0
reebom-Mower*	10	376,774	376,774	Ö	0	ő
Goodhue County	1	2,040	154	Ö	0	0
tasca-Mantrap	0	2,040	0	0	0	0
Kandiyohi	1	48,510	0	0	0	0
Lake Country*	6	1.701	1.701	0	0	0
Lake Region	2	14,449	1,153	0	0	0
Lvon-Lincoln	11	397,750	121.300	0	0	0
Jyon-Lincoin McLeod	3	57,730	46.268	0	0	0
victeod Vieeker	1	1,004	40,208 92	0	0	0
vieeker Ville Lacs	0	0	0	0	0	0
/IN Valley Light & Power*	3	5,744	5,744	0	0	0
MN Valley Electric	5	19,127	3,073	0	0	0
Nobles	2	11,700	190	0	0	0
North Itasea	0	0	0	0	0	0
North Star	0	0	0	0	0	0
KM	0	0	0	0	0	0
eoples Cooperative	0	0	0	0	0	0
Red Lake	0	0	0	0	0	0
Red River Valley	0	0	0	0	0	0
Redwood Electric	1	24,332	4,176	0	0	0
Renville-Sibley**	4	7,860	1,880	0	0	0
Roseau	0	0	0	0	0	0
Runestone	2	81,642	53,101	0	0	0
Sioux Vlly Southwestern	0	0	0	0	0	0
South Central	1	3,225	53	0	0	0
iteams	3	38,186	17,130	0	0	0
teele Waseca	12	284,280	266,097	0	0	0
Todd Wadena	0	Ó	Ó	0	0	0
raverse	1	6,580	0	0	0	0
ni County	3	12,300	5,420	0	0	0
Wild Rice	2	24,854	14,134	0	0	0
Wright Hennepin	4	9.280	0	0	0	0
Total	103	1,627,204	1,062,637	ì	1,053,680	481,240
Only NEG available		-,,	-,,	-	-,,	,

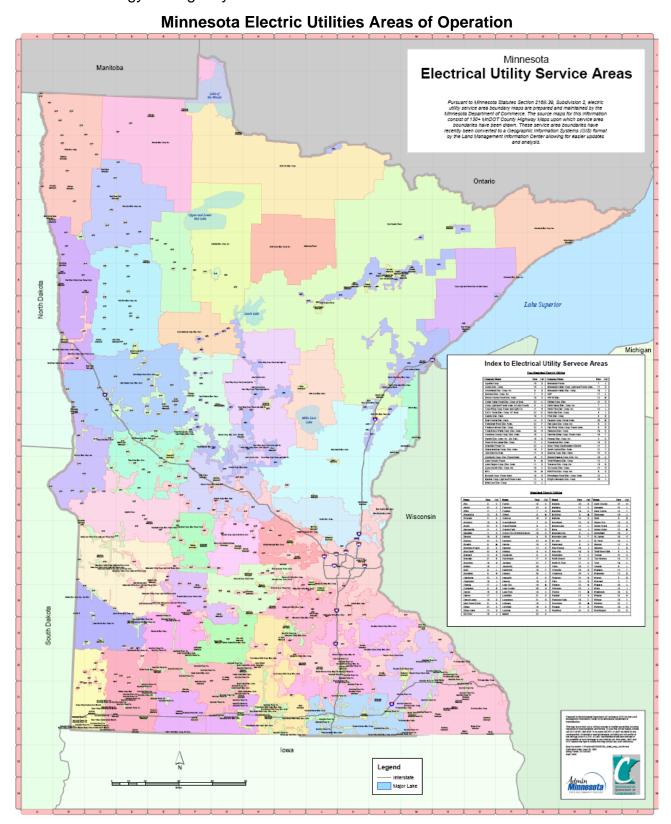
Definitions

 $Net\ Excess\ Generation\ (NEG)\ -\ generation\ in\ excess\ of\ consumption; for\ most\ large\ facilities,\ generation\ =\ NEG$

Net Metering Facilities (NM) - qualifying facilities less than 40 kilowatts

 $Large\ Facilities\ (LF)\ -\ qualifying\ facilities\ greater\ than\ 40\ kW;\ for\ some\ facilities,\ multiple\ units\ equals\ one\ QF\ (wind\ turbines\ for\ example)$

Minnesota Department of Commerce, October 2004



Minnesota Nuclear Power Plants

Monticello

Unit 1 Nuclear system supplied by General Electric Company (U.S.)					
Capacity Net MW(e)	Generation in 2003 Megawatt hours	Capacity Factor	Туре	On-line Date	License Expiration Date
597	4,576,509	87.3 %	BWR	January 9, 1981	Sept. 8, 2010

BWR= Boiling Water Reactor

Description:

Monticello is located on a 2,100-acre plant site near Monticello, Minnesota. The site is divided between Sherburne and Wright counties. Cooling water is drawn from the Mississippi River.

Ownership:

Monticello is operated by the Nuclear Management Company and owned by Xcel Energy.

Source: http://www.eia.doe.gov/cneaf/nuclear/page/at_a_glance/reactors/monticello.html

Prairie Island

Unit 1 Nu	clear system su	ipplied by	y Wes	stinghouse Elect	ric Corporation	
Capacity Net MW(e)	Generation in 2003 Megawatt hours	Capacity Factor	Туре	On-line Date	License Expiration Date	
525	4,596,252	99.7 %	PWR	April 5, 1974	August 9, 2013	
Unit 2 Nuclear system supplied by Westinghouse Electric Corporation						
Capacity Net MW(e)	Generation in 2003 Megawatt hours	Capacity Factor	Туре	On-line Date	License Expiration Date	
524	4,241,066	92.1 %	PWR	October 29, 1974	October 29, 2014	

PWR= Pressurized Light Water Reactor

Description:

Prairie Island is in Red Wing, Minnesota.

Ownership:

Prairie Island is operated by the <u>Nuclear Management Company</u> and owned by Xcel Energy.

Source: http://www.eia.doe.gov/cneaf/nuclear/page/at a glance/reactors/prairieisland.html

Appendix V. – Fuel Additive Laws

Minnesota has two fuel additive laws that could affect the availability of motor fuel during an emergency. These laws are provided here for reference purposes.

Biodiesel

LAWS OF MN 2002 - CHAPTER 239.77

An act relating to agriculture; providing for a biodiesel fuel mandate; proposing coding for new law in Minnesota Statutes, Chapter 239.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA: Section 1. [239.77] [BIODIESEL CONTENT MANDATE.]

Subdivision 1. [BIODIESEL FUEL.] "Biodiesel fuel" means a renewable, biodegradable, mono alkyl ester combustible liquid fuel derived from agricultural plant oils or animal fats and that meets American Society For Testing and Materials Specification D6751-02 for Biodiesel Fuel (B100) Blend Stock for Distillate Fuels.

Subd. 2. [MINIMUM CONTENT; EFFECTIVE DATE.]

- (a) Except as otherwise provided in this section, all diesel fuel sold or offered for sale in Minnesota for use in internal combustion engines must contain at least 2.0 percent biodiesel fuel oil by volume.
- (b) The mandate in paragraph (a) is effective on and after the date that the conditions in clauses (1) and (2), or in clauses (1) and (3), have been met:
- (1) thirty or more days have passed since the commissioner of agriculture publishes notice in the State Register that annual capacity in Minnesota for the production of biodiesel fuel oil exceeds 8,000,000 gallons; (2) eighteen months have passed since the commissioner of agriculture publishes notice in the State Register that a federal action on taxes imposed, tax credits, or otherwise creates a reduction in the price of two cents or more per gallon on taxable fuel that contains at least two percent biodiesel fuel oil and is sold in this state;
- (3) the date June 30, 2005, has passed.

Subd. 3. [EXCEPTIONS.]

- (a) The minimum content requirement of subdivision 2 does not apply to fuel used in the following equipment:
- (1) motors located at an electric generating plant regulated by the Nuclear Regulatory Commission;
- (2) railroad locomotives; and
- (3) off-road taconite and copper mining equipment and machinery.
- (b) The exemption in paragraph (a), clause (1), expires 30 days after the Nuclear Regulatory Commission has approved the use of biodiesel fuel in motors at electric generating plants under its regulation.

Sec. 2. [239.771] [DISTRIBUTOR EXPENSE REIMBURSEMENT.]

Subdivision 1. [ELIGIBILITY.] A distributor that made capital expenditures necessary to adapt or add equipment to blend biodiesel fuel oil under the mandate in section 239.77 may be eligible for partial reimbursement for those expenditures if the mandate is repealed within eight years of the date the mandate is effective.

Subd. 2. [APPLICATION; ELIGIBILITY.]

- (a) A distributor may apply to the commissioner of agriculture for a reimbursement from money appropriated for this purpose on the following schedule: If the mandate is repealed within two years of its effective date, the commissioner shall reimburse up to 80 percent of expenditures. The total amount eligible to be reimbursed must decline by ten percent each year after the mandate is effective and must end at 20 percent in the eighth year.
- (b) The commissioner must require detailed proof of expenditures made solely to comply with the mandate. Presented to the governor March 13, 2002

Became law without the governor's signature March 15, 2002

E-85



Minnesota Senate

KEY: stricken = removed, old language. underscored = added, new language.

Authors and Status List versions

S.F. No. 4, 3rd Engrossment - 84th Legislative Session (2005-2006) Posted on May 05, 2005

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1.1
                             A bill for an act
1.2
                relating to agriculture; increasing minimum ethanol
1.3
                content required for gasoline sold in the state;
1.4
                establishing a petroleum replacement goal; requiring
                studies and reports; amending Minnesota Statutes 2004,
1.5
1.6
                section 239.791, subdivision 1, by adding a
1.7
                subdivision; proposing coding for new law in Minnesota
1.8
                Statutes, chapter 239.
1.9
      BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:
1.10 Section 1. Minnesota Statutes 2004, section 239.791, 1.11 subdivision 1, is amended to read:
1.12
         Subdivision 1. [MINIMUM ETHANOL CONTENT REQUIRED.] (a)
1.13 Except as provided in subdivisions 10 to 14, a person
1.14 responsible for the product shall ensure that all gasoline sold
1.15 or offered for sale in Minnesota must contain at least 10.0
1.16
     percent denatured ethanol by volume.
1.17
         (b) For purposes of enforcing the minimum ethanol
1.18 requirement of paragraph (a), a gasoline/ethanol blend will be
1.19 construed to be in compliance if the ethanol content, exclusive
1.20 of denaturants and permitted contaminants, comprises not less
1.21 than 9.2 percent by volume and not more than 10.0 percent by
1.22 volume of the blend as determined by an appropriate United
1.23 States Environmental Protection Agency or American Society of
1.24 Testing Materials standard method of analysis of alcohol/ether
1.25 content in motor fuels.
1.26
         (c) The provisions of this subdivision are suspended during
1.27 any period of time that subdivision la, paragraph (a), is in
2.1
      effect.
2.2
         Sec. 2. Minnesota Statutes 2004, section 239.791, is
2.3
      amended by adding a subdivision to read:
2.4
         Subd. 1a. [MINIMUM ETHANOL CONTENT REQUIRED.] (a) Except
2.5
      as provided in subdivisions 10 to 14, on August 30, 2013, and
2.6
      thereafter, a person responsible for the product shall ensure
2.7
      that all gasoline sold or offered for sale in Minnesota must
2.8
      contain at least 20 percent denatured ethanol by volume.
         (b) For purposes of enforcing the minimum ethanol
2.9
2.10 requirement of paragraph (a), a gasoline/ethanol blend will be
2.11
      construed to be in compliance if the ethanol content, exclusive
     of denaturants and permitted contaminants, comprises not less
2.12
2.13
     than 18.4 percent by volume and not more than 20 percent by
2.14
      volume of the blend as determined by an appropriate United
      States Environmental Protection Agency or American Society of
2.15
2.16
      Testing Materials standard method of analysis of alcohol content
      in motor fuels.
2.17
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(c) No motor fuel shall be deemed to be a defective product 2.19 by virtue of the fact that the motor fuel is formulated or 2.20 blended pursuant to the requirements of paragraph (a) under any 2.21 theory of liability except for simple or willful negligence or 2.22 fraud. This paragraph does not preclude an action for 2.23 negligent, fraudulent, or willful acts. This paragraph does not 2.24 affect a person whose liability arises under chapter 115, water pollution control; 115A, waste management; 115B, environmental 2.26 response and liability; 115C, leaking underground storage tanks; 2.27 or 299J, pipeline safety; under public nuisance law for damage 2.28 to the environment or the public health; under any other environmental or public health law; or under any environmental 2.29 2.30 or public health ordinance or program of a municipality as 2.31 defined in section 466.01. (d) This subdivision expires on December 31, 2010, if by 2.32 2.33 that date: 2.34 (1) the commissioner of agriculture certifies and publishes 2.35 the certification in the State Register that at least 20 percent 2.36 of the volume of gasoline sold in the state is denatured 3.1 ethanol; or 3.2 (2) federal approval has not been granted for the use of E20 as gasoline. The United States Environmental Protection 3.3 3.4 Agency's failure to act on an application shall not be deemed 3.5 approval of the use of E20, or a waiver under section 211(f)(4) 3.6 of the Clean Air Act, United States Code, title 42, section 3.7 7545, subsection (f), paragraph (4). Sec. 3. [239.7911] [PETROLEUM REPLACEMENT PROMOTION.] 3.8 Subdivision 1. [PETROLEUM REPLACEMENT GOAL.] The petroleum 3.9 3.10 replacement goal of the state of Minnesota is that at least 20 percent of the liquid fuel sold in the state is derived from 3.11 3.12 renewable sources by December 31, 2015. Subd. 2. [PROMOTION OF RENEWABLE LIQUID FUELS.] (a) The 3.13 3.14 commissioner of agriculture, in consultation with the commissioners of commerce and the Pollution Control Agency, 3.15 3.16 shall identify and implement activities necessary for the widespread use of renewable liquid fuels in the state. 3.17 Beginning November 1, 2005, and continuing through 2015, the 3.18 commissioners, or their designees, shall work with 3.19 3.20 representatives from the renewable fuels industry, petroleum 3.21 retailers, refiners, automakers, small engine manufacturers, and 3.22 other interested groups, to develop annual recommendations for 3.23 administrative and legislative action. 3.24 (b) The activities of the commissioners under this 3.25 subdivision shall include, but not be limited to: 3.26 (1) developing recommendations for incentives for retailers 3.27 to install equipment necessary for dispensing renewable liquid 3.28 fuels to the public; 3.29 (2) obtaining federal approval for the use of E20 as 3.30 qasoline; (3) developing recommendations for ensuring that motor 3.31 3.32 vehicles and small engine equipment have access to an adequate 3.33 supply of fuel; 3.34 (4) working with the owners and operators of large 3.35 corporate automotive fleets in the state to increase their use 3.36 of renewable fuels; and 4.1 (5) working to maintain an affordable retail price for 4.2 liquid fuels. 4.3 [EFFECTIVE DATE.] This section is effective the day

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following final enactment.
4.5
         Sec. 4. [REPORT ON E20 FUEL.]
4.6
         The commissioner of agriculture, in consultation with the
4.7
      commissioners of employment and economic development and the
4.8
      Pollution Control Agency, shall review the information and data
4.9
      collected in the evaluation of any federal waiver request for
     the use of E20 fuel in Minnesota. The commissioner shall use
4.10
4.11
      existing budgetary and staff resources in conducting the
4.12
     review. The review must include:
4.13
         (1) issues involving the use of E20 fuel if such fuel is
4.14 mandated in Minnesota;
4.15
         (2) effects of E20 on development of Minnesota's ethanol
4.16 industry; and
4.17
         (3) effects of E20 on Minnesota consumers.
4.18
         The commissioner shall present an initial report to the
4.19 legislative committees having jurisdiction over agriculture and
4.20 environment policy and finance on the findings of the review to
4.21 the legislature by January 15, 2009, and present an updated
4.22 report to those committees on January 15, 2011.
         Sec. 5. [SMALL ENGINE REPORT.]
4.23
4.24
         The commissioner of commerce, in consultation with the
4.25 commissioner of agriculture, shall:
4.26
         (1) solicit information from national experts and
4.27
     stakeholders, which may include the United States Consumer
4.28
     Product Safety Commission, and review scientific studies on the
4.29
     use of E20 gasoline in motorcycles, outboard engines,
4.30
     snowmobiles, lawn and garden products, and other consumer
     equipment powered by small spark-ignited engines;
4.31
4.32
         (2) inventory and assess the availability of gasoline not
4.33 blended with ethanol throughout the state for exempt uses under
4.34
     Minnesota Statutes, section 239.791, subdivisions 10 to 14, and
4.35
     make recommendations for addressing those areas in which the
4.36
     commissioner finds unblended gasoline is not readily available
5.1
      to consumers;
5.2
         (3) develop recommendations for notifying consumers as to
      the availability of gasoline not blended with ethanol in the
5.3
      state, and the appropriate use of gasoline blended with ethanol
5.4
5.5
      in small spark-ignited engines found in motorcycles, outboard
5.6
      engines, snowmobiles, and lawn and garden products; and
5.7
         (4) by January 15, 2008, report to the agriculture and
5.8
      environmental policy committees of the house of representatives
5.9
      and senate on information and activities required under clauses
5.10
      (1) to (3).
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