Exhibit__(BJL-2)

NorthWestern Energy
Delivering a Bright Future

SD Electric Integrated Resource Plan

Update 2011

Table of Contents

NorthWestern Energy

Delivering a Bright Future

Preface

2011 SD Electric Integrated Resource Plan

NorthWestern Energy's ("NorthWestern") 2011 South Dakota Electric Integrated Resource Plan ("Plan" or "2011 Plan") is being presented to the South Dakota Public Utilities Commission (PUC). The Plan describes: NorthWestern's 2011 planning process, the Midwest region's energy landscape, and steps taken as NorthWestern evaluated renewable portfolio standards.

The results of NorthWestern's planning analyses will be completed in the first quarter of 2012 and will be provided in full at that time.

Planning for the supply and capacity obligations must be flexible and capable of responding to ever-changing conditions. This Plan should not be viewed as a rigid blueprint that will dictate future actions. Instead, it should be seen as a guidance document as resources and their parameters identified in the Plan's preferred resource portfolios may not be reflected in a future portfolio that ultimately provides electricity to supply customers. This Plan provides insight into the types of resources and characteristics that are believed to best serve customers, and will help shape any capital expenditures and Requests for Proposals ("RFPs") NorthWestern develops in the future.

Executive Summary

2011 SD Electric Integrated Resource Plan

This Plan provides a disciplined economic evaluation of supply and demand side resources that could meet the next 10 years of NorthWestern's load serving obligation. The Plan employs quantitative risk analysis to help understand the potential effects from environmental and market uncertainties at a time when utilities, including NorthWestern, are struggling to minimize consumer rate increases while maintaining reliability, increasing energy efficiency, and meet growing demand. The Plan's conclusions, which will be completed in 2012, will guide NorthWestern's investments on behalf of Customers and Shareholders.

This plan is based on current information that is available. Depending on future legislation and environmental requirements, this plan will be modified to reflect the updated requirements.

Base Load

Coal

Opportunities to invest in coal baseload plants are limited, although they provide favorable overall costs even when considering a possible carbon tax because of its abundance and regional price.

Natural Gas

Natural gas has not been used as a baseload fuel in the MAPP/MISO region due to price and availability compared to regional coal supplies. Natural gas has been typically been used as a heating resource in this region. As the natural gas markets have changed, the feasibility to use a combined cycle turbine as an intermediate or baseload resource have improved.

Wind

NorthWestern will continue to evaluate additional quantities of wind as a resource. The development of new wind resources has slowed because of current market conditions and a possible non renewal of the production tax credits.

Biomass

NorthWestern is continuing to evaluate biomass technologies. Feed stock availability and increased development activity may provide NorthWestern an opportunity to add this clean resource, which can qualify as a renewable resource to its portfolio.

Alternative Renewable Energy

NorthWestern is continuing to evaluate photo voltaic, pressure step down, and other generating technologies. Increased development activity may provide NorthWestern an opportunity to add this clean resource, which can qualify as a renewable resource to its portfolio.

Peaking

NorthWestern's SD retail electric load is characterized by a relatively low annual load factor with short periods of high load, typically during the summer air conditioning season. As a result, peaking generation capability will continue to be needed. The existing fleet of peaking units, along with seasonal capacity purchase contracts, is sufficient for the near term through 2015 including the new Aberdeen Unit #2. However, forecasted increases in peak demand indicate a need for additional capacity during the last half of the 10 year planning period.

Energy Efficiency

NorthWestern will continue to evaluate Demand Side Management (DSM) opportunities. The annual DSM goal is 0.5 MW per year. The annual load growth forecast is approximately 2.7% annually.

Background

NorthWestern's Planning Process:

The 2011 Plan details NorthWestern's systematic efforts to plan for the investment and procurement of a portfolio of electric resources consistent with sound planning practices. This plan details NorthWestern's efforts to provide adequate, reliable, and reasonably priced electrical service.

The basic analytical steps involved in developing this Plan are:

- Background/status of our portfolio showing historical load curves and current resources;
- Forecasting the load to be served over the next ten years;
- Decreasing the forecast using the estimated energy conservation for the DSM planning horizon;
- Developing CO_2 tax scenarios based on possible future legislation including sensitivities with information known at the time of this writing;
- Creating various portfolios of feasible resources that NorthWestern could pursue;
- Analyzing the costs and major risk factors inherent in various portfolios and selecting the best options;
- Selecting and performing a qualitative analysis of the best portfolios; and,
- Creating an Action Plan with items for NorthWestern to undertake over the next three years and beyond.

While this Plan provides significant guidance to the utility, it is intended to also provide the SDPUC and our stakeholders an opportunity to understand the critical issues associated with the ongoing development of NorthWestern's electric portfolio.

Upper Midwest Landscape (All)

MID-CONTINENT AREA POWER POOL (MAPP)
http://mapp.org/DesktopDefault.aspx?Params=454b040717565c7d00000001e1

"MAPP is an association of electric utilities and other electric industry participants operating in all or parts of the following states and provinces: Iowa, Minnesota, Montana, Nebraska, North Dakota, South Dakota, and Manitoba.

The MAPP organization has three primary functions: regional transmission planning, reliability planning and coordination, and transmission tariff services coordination. These functions support the provision of reliable, efficient, and economical power in the upper Midwest.

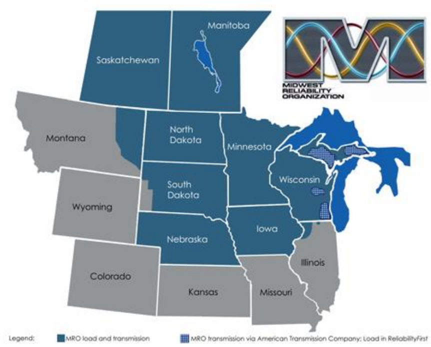
The regional transmission planning function includes development of an annual MAPP regional transmission plan consistent with applicable standards and requirements established by the MAPP Transmission Planning Committee, the North American Electric Reliability Corporation (NERC), the Federal Energy Regulatory Commission (FERC), and the applicable Regional Entity. The regional plan is developed by MAPP Members and coordinated with adjacent transmission service providers. The regional planning activity includes stakeholder involvement to provide an open and transparent planning process.

The reliability planning and coordination function includes the facilitation of compliance requirements of MAPP Members with the NERC Reliability Standards applicable to the MAPP Planning Authority and additional standards as specified by the Reliability Planning and Coordination Committee.

The transmission tariff services coordination function facilitates open access of the regional transmission system under the Open-Access Transmission Tariffs of the MAPP Tariff Services Committee members."

Midwest Reliability Organization (MRO)

MRO is a cross border Regional Entity (or "Region") in North America operating under authority from regulators in the United States through a delegation agreement with the North American Electric Reliability Corporation ("NERC") and through other arrangements in Canada. In the United States, MRO operates under the authority found in Section 215 of the Federal Power Act, through the Federal Energy Regulatory Commission ("FERC" or "Commission") and through other arrangements in Manitoba and Saskatchewan.



The primary focus of MRO is assessing compliance with Reliability Standards on entities that own, operate or use the Bulk Electric System ("BES"), performing assessments of the BES, and technical analysis of matters impacting the reliability of the BES in the north central part of North America. MRO is a non-profit corporation registered in Delaware and has a 501(c) 6 designation by the Internal Revenue Service. MRO is licensed and registered to conduct business and operate in all the states and two Canadian provinces within its region. The MRO Region is comprised of municipal utilities, cooperatives, investor owned utilities, a federal power marketing agency, Canadian Crown Corporations, large and small end-use load organizations, transmission system operators, regional planning authorities, and independent power producers. The MRO Region spans eight states and two Canadian provinces covering roughly one million square miles. MRO is independent of bulk electric owners, users, and operators of the BES, is not an operator, owner, or user of the BES, and has no shared employees with a third or related party. MRO performs only those responsibilities under Section 215 of the Federal Power Act and similar functions through arrangements with Saskatchewan and Manitoba.

MRO Executive Summary

The forecasted 2010–2019 Non-Coincident Peak Net Internal Demand for the MRO Region shows an increase at an average rate of 1.37 percent per year as compared to 1.60 percent predicted last year for the 2009–2018 period. The Total Internal Demand for 2019 is projected to be 54,392 MW. The Net Internal Demand is projected to be 51,113 MW. These projected demands are slightly lower than the 2018 demand projections due to the economic downturn. The Existing capacity resources for 2010 are 65,508 MW. The Existing-Certain resources for 2010 are 58,006 MW. This is 1,573 MW higher than the

Existing-Certain resources reported for the 2009 (56,433 MW). The Future (Planned and Conceptual) capacity resources that are projected to be in service by end of 2019 is 19,164 MW. Approximately 1,600 MW of additional nameplate wind generation and 480 MW of hydro generation are projected to be placed in service in 2010 summer since 2009 summer. The projected Adjusted Potential Resources Reserve Margin for the MRO Region ranges from 29.0 percent to 22.7 percent for the 2010-2019 period, which is above the various target reserve margins established by the MRO Planning Authorities.

- Total Internal Demand 48,430 54,392
- Total Capacity 65,508 67,629
- Capacity Additions 0 2,121
- Demand Response 3,199 3,279

A number of transmission reinforcements and various transformer and substation expansions and upgrades are projected to be completed during the 2010-2019 planning horizon. The MRO Transmission Owners estimate that 833 miles of 500 kV DC circuit, 31 miles of 500 kV AC circuit, 894 miles of 345 kV circuit and 570 miles of 230 kV circuit of planned facilities could be installed in the MRO Region over the next ten years.

The MRO Region is projected to have approximately 23,663 MW of nameplate wind generation by end of 2019, which includes Conceptual wind resources based on a 35 percent confidence factor. The simultaneous output of wind generation within the MRO Region has historically reached 75 percent or more of nameplate rating for extended periods of time, and this may occur during off-peak hours and minimum load periods. At the present time, ramp rates, output volatility, and the inverse nature of wind generation with respect to load levels have been manageable. However, the Reliability Coordinator and Operators in the MRO Region closely monitors the ramp-down rate of wind generation during the morning load pickup period. Extensive analysis is being performed on wind generation, in areas such as: regulation, load following, ramp rates, managing minimum load periods, forecasting, equitable participation during curtailments and re-dispatch. In addition, addressing future aspects of wind such as establishing appropriate capacity credits, day-ahead participation in market processes, and energy storage are being analyzed.

During the last year or two, a number of companies in the MAPP Generation Reserve Sharing Pool (GRSP) have left the MAPP GRSP and joined the MISO Planning Reserve Sharing Group (PRSG) or the Southwest Power Pool (SPP). As a result, the MAPP GRSP did not have enough membership with adequate generating capacity to remain viable. Therefore, the remaining MAPP members, including NorthWestern, voted to terminate the MAPP GRSP at the end of 2009. NorthWestern is currently evaluating the options of either joining the Midwest PRSG or the SPP. In the meantime, NorthWestern will continue to maintain generating reserves at a level consistent with MISO and SPP policy guidance.

Midwest Independent System Operator (MISO)
https://www.midwestiso.org/Pages/Home.aspx

"The Midwest ISO is an independent, nonprofit organization that supports the constant availability of electricity in 12 U.S. states and the Canadian province of Manitoba.

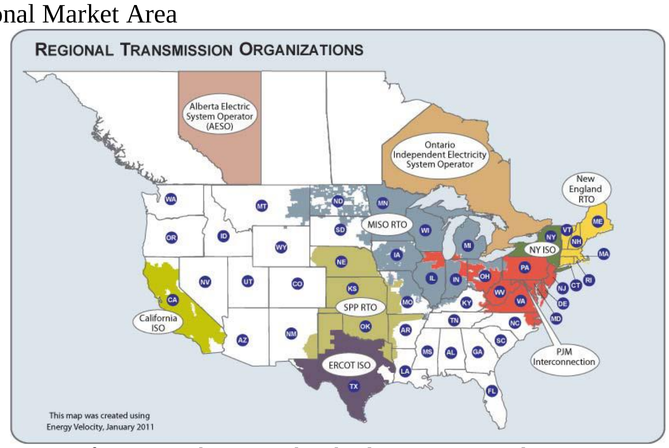
This responsibility is carried out by ensuring the reliable operations of nearly 53,203 miles of interconnected high voltage power lines that support the transmission of more than 146,000 MW of generating capcity and 629 TWhours annual billing in the Midwest, by administering one of the world's largest energy markets, and by looking ahead to identify improvements to the wholesale bulk electric infrastructure that will best meet the growing demand for power in an efficient and effective manner.

The Midwest ISO was approved as the nation's first regional transmission organization (RTO) in 2001. The organization is headquartered in Carmel, Indiana with operations centers in Carmel and St. Paul, Minnesota.

MISO manages one of the world's largest energy and operating reserves markets using security-constrained economic dispatch of generation. The Midwest Energy and Operating Reserves Market includes a Day-Ahead Market, a Real-Time Market, and a Financial Transmission Rights (FTR) Market. These markets are operated and settled separately.

- $27.5 billion annual gross market charges (2010)
- 1,966 pricing nodes
- Five-minute dispatch
- Offers locked in 30 minutes prior to the scheduling hour
- Spot market prices calculated every five minutes
- 368 Market Participants who serve 40+ million people
- 815 full-time employees (December 2010)"

Figure 2: MISO Regional Market Area



http://www.ferc.gov/market-oversight/mkt-electric/overview/elec-ovr-rto-map.pdf

Western Area Power Administration (WAPA)

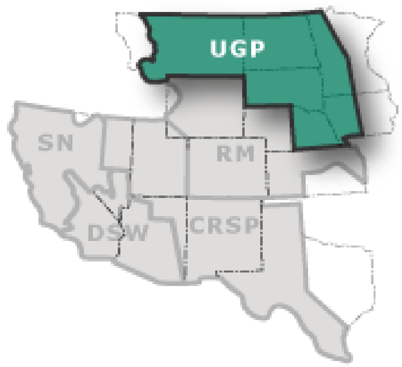
http://www.wapa.gov/

"Western Area Power Administration markets and delivers reliable, cost-based hydroelectric power and related services within a 15-state region of the central and western U.S. WAPA is one of four power-marketing administrations within the U.S. Department of Energy whose role is to market and transmit electricity from multi-use water projects. WAPA's transmission system carries electricity from 57 power plants operated by the Bureau of Reclamation, U.S. Army Corps of Engineers and the International Boundary and Water Commission. Together, these plants have an installed capacity of 10,479 megawatts.

The Upper Great Plains Region carries out Western's mission in Montana, North Dakota, South Dakota, Nebraska, Iowa, and Minnesota. WAPA sells more than 12 billion kilowatt-hours of firm power generated from eight dams and power plants of the Pick-Sloan Missouri Basin Program-Eastern Division. WAPA delivers this hydropower through nearly 100 substations and across nearly 7,800 miles of Federal power lines, which are connected with other regional transmission systems and groups.

NorthWestern relationships with WAPA include a load control and power marketing contract, a network transmission service agreement, spinning reserve supply agreement and a non-firm supplemental energy supply agreement."

Figure 3: WAPA Upper Great Plains Region:



http://www.wapa.gov/ugp/

Future Direction for Regional Planning

NorthWestern is evaluating the options of staying with MAPP and WAPA or joining MISO or SPP. Costs for NorthWestern being a member vary between planning groups and depends on the system connectivity of each planning group. On and off system transmission costs, capacity reserve requirements, available capacity, market availability, provided services, and system integrations are part of the costs associated with selecting a planning group. WAPA is also currently evaluating staying with MAPP or moving to MISO or SPP. Because of the connectivity of NorthWestern with WAPA, their decision may affect NorthWestern's timing and direction in selecting a regional provider.

Generation Construction (National)

"A report by the National Energy Technology Laboratory provides an overview of proposed new coal-fired power plants that are under development at the end of 2010. The report does not represent all possible plants under consideration but was intended to illustrate the potential that exists for installation of new coal-fired power plants. Recent experience has shown that public announcements of new coal-fired power plant development do not provide an accurate representation of actual new operating power plants. Actual plant capacity commissioned has historically been significantly less than new capacity announced." A summary of the report is listed below:[1]

- Eleven new plants (6,682 MW) have become operational in 2010; the most in 25 years.

[1] **Tracking New Coal-Fired Power Plants**- National Energy Technology Laboratory - http://www.netl.doe.gov/coal/refshelf/ncp.pdf

- "Progressing/Commissioned" projects have had a net increase of 1 plant; a net change in capacity of 3,712 MW (+21%) over progressing projects in January 2010.
- 1,599 MW of new capacity have been announced and 6,418 MW have been canceled maintaining approximately 20,000 MW of progressing projects
- Of 6,418 MW canceled plants, 85% were in the announced phase and 15% were progressing phase.
- Compared to previous years, fewer projects are being announced to offset the recent de-commissioning activities.

Renewable Energy

The South Dakota Legislature has provided guidance concerning a renewable and recycled energy objective.

> <u>South Dakota Renewable, Recycled and Conserved Energy Objective:</u>
>
> Section 49-34A-101 established the State renewable, recycled and conserved energy objective. "There is hereby established a state renewable, recycled, and conserved energy objective that ten percent of all electricity sold at retail within the state by the year 2015 be obtained from renewable, recycled, and conserved energy sources. In the case of renewable and recycled energy, the objective shall be measured by qualifying megawatt hours delivered at retail or by certificates representing credits purchased and retired to offset non-qualifying retail sales. In the case of conserved energy, the objective shall be measured by methods established by rules promulgated by the commission pursuant to chapter 1-26. This objective is voluntary, and there is no penalty or sanction for a retail provider of electricity that fails to meet this objective. The objective applies to each retail provider of electricity in the state, regardless of the ownership status of the electricity retailer. Any municipal or cooperative utility that receives wholesale electricity through a municipal power agency or generation and transmission cooperative may aggregate the utility's renewable, recycled, and conserved energy objective resources to meet this objective. Source: SL 2008, ch 244, § 1; SL 2009, ch 241, § 1. "

NorthWestern will continue to evaluate possible renewable, recycled or conserved energy resources for their applicability in assisting the utility in meeting future energy or capacity needs. The cost-effectiveness of these resources, when they become available, will play be a significant factor in the evaluation process.

Carbon (Wikipedia)

"CO_2 is one of many heat-trapping greenhouse gases (GHG). The scientific consensus is that human-induced greenhouse gas emissions are the primary cause of global warming, and that carbon dioxide is the most important of these gases. Worldwide, 27 billion tonnes of carbon dioxide are produced by human activity annually. The physical effect of CO_2 in the atmosphere can be measured as a change in the Earth-atmosphere system's energy balance – the radiative forcing of CO_2. Carbon taxes are one of the policies available to governments to reduce GHG emissions."

Environmental concerns for carbon levels and future legislation will affect current and future baseload fossil fuel generation feasibility. The effects of a tax or a cap and trade on NorthWestern coal resources will be discussed further in the Environmental Issues section.

Carbon Tax (Wikipedia)

"A carbon tax is an environmental tax that is levied on the carbon content of fuels. It is a form of carbon pricing. Carbon atoms are present in every fossil fuel (coal, petroleum, and natural gas) and are released as carbon dioxide (CO_2) when they are burnt. In contrast, non-combustion energy sources—wind, sunlight, hydropower, and nuclear—do not convert hydrocarbons to carbon dioxide. A carbon tax can be implemented by taxing the burning of fossil fuels—coal, petroleum products such as gasoline and aviation fuel, and natural gas—in proportion to their carbon content."

Cap and Trade (Wikipedia)

"Emissions trading is a market-based approach used to control pollution by providing economic incentives for achieving reductions in the emissions of pollutants.

A central authority (usually a governmental body) sets a limit or *cap* on the amount of a pollutant that can be emitted. The limit or cap is allocated or sold to firms in the form of emissions permits which represent the right to emit or discharge a specific volume of the specified pollutant. Firms are required to hold a number of permits (or *carbon credits*) equivalent to their emissions. The total number of permits cannot exceed the cap, limiting total emissions to that level. Firms that need to increase their emission permits must buy permits from those who require fewer permits."

Carbon Outlook

There is currently little to no activity legislatively regarding climate control legislation mostly due to the down turn in the economy and continued economic slowdown. Without specific legislation, economic improvement, or regulatory guidance, it is difficult to derive the effect and timing of carbon 'costs'. NorthWestern will continue to analyze the effect of carbon on options for its portfolio.

SD Regulatory Climate

The South Dakota PUC has remained open to different resource mixes to meet future generation needs in the State. They have stated support for coal fired baseload options. They have also supported renewable resources including wind and internal combustion peaking facilities that are part of NorthWestern's near term supply portfolio.

Conclusion

In summarizing the status of the utility landscape in the Upper Midwest, the overriding theme is the uncertain environment in which resource decisions and acquisitions are taking place. There is significant risk and uncertainty confronting utilities and regulators. Regarding future regional load/resource conditions, the apparent difficulty in deciding whether to construct new baseload resources to serve load growth raises the specter of energy and capacity shortfalls in the future, which will exacerbate an already volatile energy market. In the event utilities do manage to construct new base load plants, it is assumed that some form of carbon assessment – either in the form of a carbon tax or a cap and trade process – will make up a portion of the resources cost. Deriving a reasonable estimate of these cost adders and their resulting impact on the market and other resource costs is nearly an impossible task. As a result of the high level of uncertainty, regional utilities appear to be focused on the development of smaller scale renewable resources, DSM and planned reliance on the wholesale market, although significant investments in new thermal generation are being considered. NorthWestern approaches this environment as a utility with a recognized substantial resource deficit beginning in 2013.

Future Direction

Much of what NorthWestern will consider for future energy and capacity needs will be dictated by what happens at the federal agency and legislative levels. Great uncertainty remains over what direction environmental, taxation and energy policies will take. Potential costs associated with these policy decisions will affect not only NorthWestern from a business perspective but will also have a direct translation to what our customers will pay to receive their utility services.

In determining future generation resources, availability, reliability and cost effectiveness will be top considerations. Balancing these considerations against one another to achieve the optimum benefit for customers and in meeting the needs of the company will be a delicate dance. Renewable energy resources have a role to play along with the more traditional fuel sources such as natural gas and coal. This region's dependence on coal is providing a significant cost benefit to customers as it has been historically cheap and readily available. However, recognition must be given to changing public policy/sentiment at a national level regarding using coal for electric generation. How this changing sentiment may ultimately influence national policy remains to be seen as the economic advantages of coal to this region are important and need to be considered.

As discussed later in this planning document, NorthWestern plans to continue its exploration of adding wind generation or other renewable resources to its portfolio as it identifies cost effective projects. The addition of renewable resources can be accomplished as either a company-owned venture or through a purchase power agreement with an independent developer. Either way, the addition of renewable resources to our generation mix must prove to be cost effective for our customers and make sense from a business development perspective.

Changing customer demands will also greatly influence the future direction of how NorthWestern plans for energy and capacity needs. While traditionally NorthWestern has been a summer peaking utility, we are seeing a significant shift in winter peaking events. Consideration will be given to how to best meet the changing needs through the possible addition of peaking generation or the possible conversion of existing peaking plants to be used on a more full-time basis. Again, each option will need to be evaluated for its effectiveness in meeting the utility's needs while being the most cost effective solution for our customers.

Finally, the ability of NorthWestern to use contractual agreements with our neighboring utilities to assist us in meeting capacity needs is slowly evaporating. This diminishing availability of regional cooperative agreements will drive NorthWestern towards finding solutions on a more internal basis.

Status of Portfolio

Existing Resources

A list of the following current resources for South Dakota Generation is as follows:

1.) Base load (summer ratings - 2011)

- Big Stone - 111.2 MW
- Neal 4 - 56 MW
- Coyote - 42.7 MW

Total - 209.9 MW

2.) Peaking

- Mixture of diesel engine and combustion turbines
- Eighteen units at seven locations providing 102 MW. A detailed list of the units can be found in Appendix A.
- A new 52 MW combustion turbine currently under construction with commercial operation scheduled for late 2012 or early 2013.
- 8MW of Reciprocating Internal combustion Engines (RICE) planned to be classified as "emergency use only" in 2013
- These units provide peaking as well as emergency back-up services for various communities.

3.) Current capacity and energy agreement with Mid-American for up to 80 MW thru 2012 and a capacity and energy agreement with BEPC for up to 19 MW thru 2015.

Asset description:

Big Stone

Coal-fired, cyclone burner, non-scrubbed base load plant located in NE South Dakota and was built in 1975. Unit rated at 475 MW with NWE-SD equity share of 23.4% or 111 MW. Fuel source is Powder River Basin sub-bituminous coal delivered by the BNSF RR.

Environmental/Regulatory

To meet the proposed MACT Rule at Big Stone, a scrubber, baghouse and activated carbon injection (ACI) system - referred to as the Air Quality Control System ("AQCS") must be in service within five years of the finalization of the Rule. The owners are attempting to have the AQCS completed by the end of 2015 due to a number of factors related to regulatory approvals, escalation, and engineering, procurement, and construction resource availability.

- The AQCS project is in the permitting stage with preliminary engineering and regulatory processes underway.
- Ottertail, the majority owner of Big Stone, had their Minnesota Advanced Determination of Prudence hearings in September with a final decision expected in December.

Neal 4

Pulverized coal, non-scrubbed base load plant located in NW Iowa and was built in 1979. Unit rated at 656 MW with NWE-SD equity share of 8.681% or 57 MW. Fuel source is Powder River Basin sub-bituminous coal delivered by the UP RR. Carbon dioxide (CO_2) emissions estimated to be approximately 1.13 tons per MWH. Heat rate is 10,300 BTU/KWH.

Environmental/Regulatory

- The final MACT Rule will be issued in November 2011 and compliance is estimated to be completed by 2015. To comply with the MACT Rule at this facility, a scrubber, baghouse and actuated carbon injection will need to be installed.
- The Neal 4 environmental compliance project is underway. The EPC contract for the project has been awarded. The contract was awarded to Neal Station Environmental Partners (NSEP), a joint venture of Kiewit and Burns and McDonnell. Current site progress includes setting office trailers, site surveys and installing test pile.
- Neal 4 may need additional N0X reductions due to local area "non-attainment".
- Sulfur Dioxide NAAQS may also be an issue. However, the planned scrubber should mitigate this issue.

Coyote I

Coal fired, cyclone burner, dry scrubbed base load plant in west-central North Dakota. Built in 1981. Unit rated at 427 MW (transmission limited) with NWE-SD equity share of 10% or 42.7 MW. Fuel Source is North Dakota lignite from an adjacent mine owned by Dakota Westmoreland. Carbon dioxide (CO_2) emissions estimated to be approximately 1.20 tons per MWH. Heat rate is 11,900 BTU/KWH.

Environmental/Regulatory

The final MACT Rule is due in November 2011 with estimated compliance by 2015. Coyote will need activated carbon injection (ACI) for mercury control plus some supplementary testing to determine if additional controls for particulate are needed. The North Dakota SIP is expected to be finalized in March of 2012. At this point Coyote is planning to add Separated Over Fire Air (SOFA) for NO_X control as required by 2018.

Peaking Units

This is a mix of diesel engine and combustion turbine peaking generators fueled by fuel oil or natural gas located at various points within the NWE-SD service territory. The units range in vintage from the late 1940's to 2008. The largest unit is a 44 MW combustion turbine at Huron. Heat rates range from approximately 11,000 to 15,000 BTU/KWH. Regulated emissions are negligible, due to the very low number of annual operating hours.

Capacity and Energy Agreements

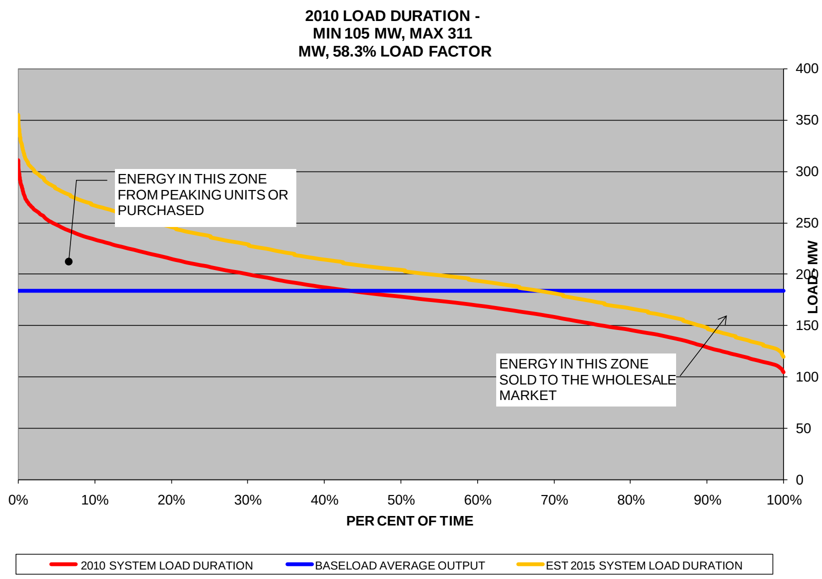
A three-year agreement with MEC for 74 MW in 2010, 77 MW in 2011 and 80 MW in 2012 for the summer months of June thru September. Additionally, a four-year agreement with BEPC has been executed for 5 MW in 2012, 11 MW in 2013, 15 MW in 2014 and 19 MW in 2015.

Load Balance

Energy

As displayed in the chart below, Northwestern-SD's retail energy sales growth over time has and will result in increased amounts of purchased power and decreased amounts of surplus energy available for re-sale to the wholesale market. Furthermore, this load growth pattern increases the average price of purchased power because of the increased number of "on-peak" versus "off-peak" hours during which purchases are needed.

Figure 4: 2010 Load Duration



CAPACITY REQUIREMENTS

Historic Peak System Loads:

The NWE-SD electric service territory is characterized by predominantly residential and small commercial customers with a small number of light industrial customers. This type of retail customer base has a high demand for space heating and cooling relative to their "base" load requirements. As a result, the system annual load profile has significant seasonal variation, with maximum demands occurring during winter and summer extreme temperature periods. Annual load factors are typically in the 50 to 60% range.

Winter space heating is supplied predominantly by natural gas or other non-electric sources, whereas summer space cooling is very much electricity-based. In recent years, winter peak loads have been growing faster than summer peaks, but, for the near term, summer peaks are the driver for determining required electric generating capacity.

During the last 10 years, new record summer peak loads have been established on four occasions. These are shown below with the respective system average ambient temperature during the peak load measurement period.

2005 – 297.8 MW, 98.0 deg. F, August 2

2006 – 309.4 MW, 100.8 deg. F, July 31
2007 – 315.1 MW, 99.9 deg. F, July 23
2011 – 341 MW, 101.5 deg. F, August 1

Ten-Year Peak System Load Forecast:

A new system peak load of 342 MW (unaudited) was established in the summer of 2011 during a period of extreme high ambient temperatures throughout the NWE SD service territory. During that period, the weighted average temperature was an unprecedented 101.5 deg. F. However, for the purposes of peak annual load forecasting for future periods, a "system design" temperature of 100 deg. F will continue to be used as it more closely reflects the historic average temperature experienced at the times of new peak load records.

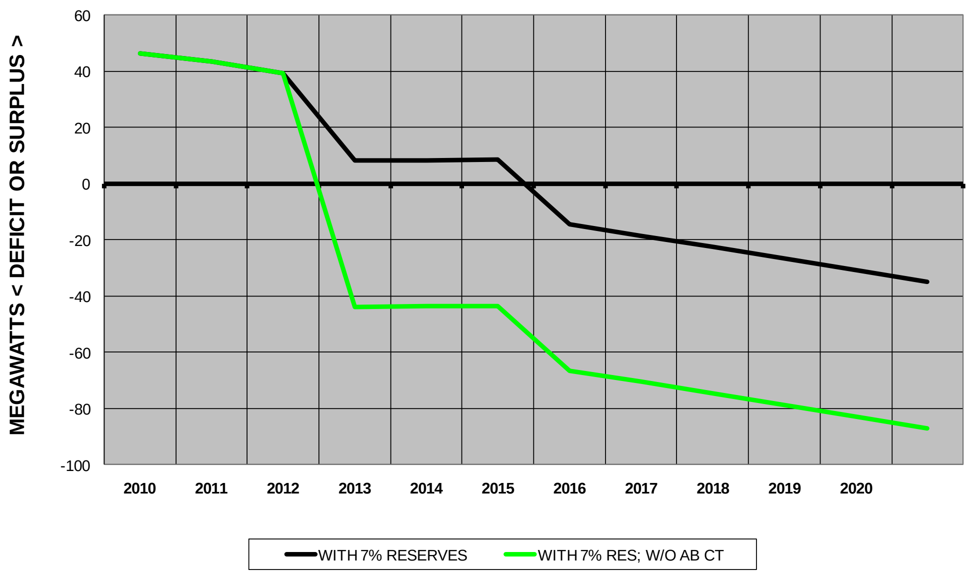
Historic peak load patterns indicate fairly close correlation to a 1.0 to 1.1 % per year average growth rate at the 100 deg. F system design temperature. For the purposes of this forecast, a growth rate of 1.05% per year has been chosen. In summary, the 2012- 2021 peak load forecast is shown below as well as the total obligation including a 7.11% planning reserve requirement (MISO-prescribed level for this region). These levels also reflect the termination of NWE's 3 MW obligation for the Northern Lights Ethanol (NLE) plant after 2012.

Summer Peak Load	Obligation with reserves	Summer Peak Load	Obligation with reserves
2012 – 342.1 MW	366.4 MW	2013 – 342.7 MW	367.0 MW
2014 – 346.3 MW	370.9 MW	2015 – 350.0 MW	374.8 MW
2016 – 353.7 MW	378.8 MW	2017 – 357.4 MW	382.8 MW
2018 – 361.2 MW	386.9 MW	2019 – 365.0 MW	391.0 MW
2020 – 368.9 MW	395.1 MW	2021 – 372.8 MW	399.3 MW

Capacity obligation versus Generating Fleet

When comparing the forecast capacity obligation to the existing generating fleet and capacity contracts, the following surplus/deficit forecast is developed. This forecast includes the termination of the existing MEC capacity contracts after 2012, the addition of a new Basin Electric Power Cooperative (BEPC) capacity and energy contract starting in 2012, the addition of a 52 MW combustion turbine in 2013 and the relegation of 8 MW of small diesel generators to "emergency use only" status after 2012 for economic reasons (related to new EPA rules).

SUMMER CAPACITY - SURPLUS / DEFICIT -------- INCLUDES BEPC "K" 2012 TO 2015
PRO FORMA 2010-2011, EST 2012 THRU 2020 - 100 DEG F SYSTEM DESIGN TEMP



SUMMARY

In summary, the summer peak load obligation (including 7.1% reserves) is expected to be lower than available capacity through 2015. Therefore, some form of additional summer capacity will be needed for 2016 and beyond. This forecast assumes that the new Aberdeen CT will be on line in late 2012. Without the new Aberdeen CT, it is anticipated that there would be summer capacity deficit occurring as early as 2013.

Renewable Portfolio

NorthWestern –South Dakota is utilizing 25 MW of wind through a purchase power agreement (PPA) with BP Alternative Energy North America Inc. that started in 2010 with the Titan I project going online. NorthWestern will have additional options for wind as projects develop. Wind energy will have its place in the energy market, however, not as a substantial base load resource. NorthWestern will continue to evaluate cost effective renewable generation projects.

Efficiencies

Demand Side Management Resource

NWE SD plans to implement a DSM plan in 2011. This resource is anticipated to reduce the current load by approximately 0.25 MW in 2011 with additional annual load retrofits of 0.50 MW per year beginning in 2012. The DSM program includes:

- Residential & Small Commercial Energy Audits
- Inspection, education, & direct installation of some measures
- Trained personnel are used
- Residential Natural Gas Retrofit Program
- Measures
- Rebates
- Fall Events
- Residential & Commercial Lighting Rebate Programs

- Multiple methods to deliver prescriptive rebates
- Partnerships with retailers

The early stages of the DSM project are focused solutions with available technology and that are more affordable for the customers. At this point the residential reductions may be saturated so additional annual savings beyond 0.50 MW per year are not anticipated.

Residential

- Energy efficient fluorescent lighting (CFLs & Insulation (ceiling, wall, floor, tank & pipe)
- Programmable thermostat
- Low flow faucets, showerheads & aerators

Commercial

- High efficiency heat pump
- Energy management system
- Energy efficient fluorescent lighting (T8, T5)

Sometime after 2015, the commercial large building packages will be targeted. These packages are more costly for the customer and require additional planning and budgeting for implementation and cost recovery.

Future Programs - Commercial

- HVAC
- Variable air volume
- Variable speed drives
- Controls, sensors, sweep controls & photocells
- LED exit signs
- Motors and much more …
- Customized incentive program for commercial/small industrial
- New Construction
- Demand Response … many variants

A draft plan is being finalized and NorthWestern will proceed with the following steps introducing the program in the summer of 2012.

- File revised DSM Plan and cost recovery model with South Dakota PUC
- Comments & interaction with PUC and staff
- Make adjustments to Plan as indicated and warranted
- Initiate contracts with service providers
- Service Providers establish and build presence in South Dakota service territory
- Program support materials and marketing/outreach plans are finalized
- Program introduction in Summer 2012

Inverted Rate Blocks

Additional strategies utilized in various degrees by other utilities are inverted rate blocks structures. The concept would consist of rates that are implemented for the summer months providing a pricing incentive for customers to use less energy during the summer peaking months. This concept could also apply to an increasing demand for NorthWestern's winter loads.

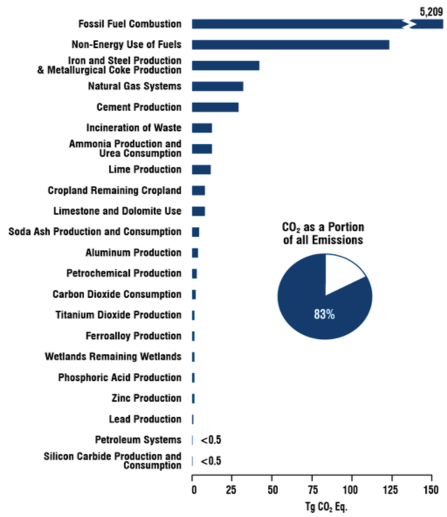
<u>Environmental Issues</u>

The environmental issues related to meeting power demands are numerous. They include land and water use issues, impacts on wildlife and plants, emissions related to generation including mercury, SOx, NOx, particulates and greenhouse gases (GHGs). The table on the following page represents the environmental activities for each of NorthWestern's joint owned facilities and the owned internal generation.

Carbon Dioxide

An important environmental issue when considering decisions about which generation types are best for the portfolio is the emission of greenhouse gases, particularly carbon dioxide. The largest source of CO_2 emissions in the U.S. is from fossil fuel combustion. Figure 5 displays a breakdown of sources of CO_2 emissions in the U.S. in 2009.

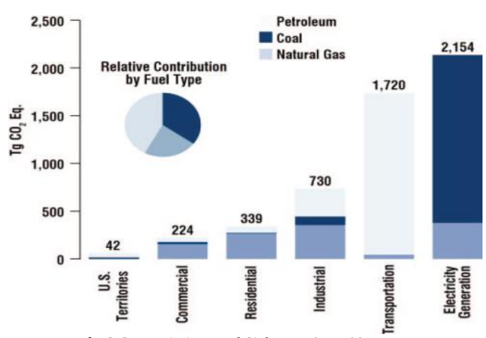
Figure 9: 2009 Sources of CO_2 Emissions



Source: Inventory of US Gas Emissions and Sinks: 1990 to 2009 pg8
http://www.epa.gov/climatechange/emissions/downloads11/US-GHG-Inventory-2011-Executive-Summary.pdf

"The five major fuel consuming sectors contributing to CO_2 emissions from fossil fuel combustion are electricity generation, transportation, industrial, residential, and commercial."[2] Figure 6 shows the emissions by fuel type from power production.

Figure 10: 2009 CO_2 Emissions from Fossil Fuel Combustion by Sector and Fuel Type



Source: Inventory of US Gas Emissions and Sinks: 1990 to 2009 pg9
http://www.epa.gov/climatechange/emissions/downloads11/US-GHG-Inventory-2011-Executive-Summary.pdf

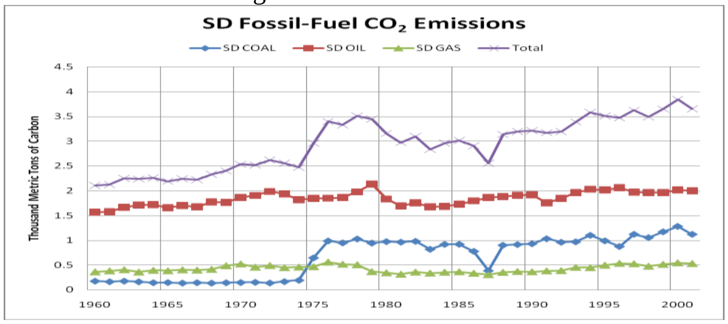
---

[2] Executive Summary of the Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2009 pg8

"The United States relies on electricity to meet a significant portion of its energy demands. Electricity generators consumed 36 percent of U.S. energy from fossil fuels and emitted 41 percent of the CO_2 from fossil fuel combustion in 2009. The type of fuel combusted by electricity generators has a significant effect on their emissions. For example, some electricity is generated with low CO_2 emitting energy technologies, particularly non-fossil options such as nuclear, hydroelectric, or geothermal energy. However, electricity generators rely on coal for over half of their total energy requirements and accounted for 95 percent of all coal consumed for energy in the United States in 2009. Consequently, changes in electricity demand have a significant impact on coal consumption and associated CO_2 emissions."[3]

SD carbon emissions continued to grow from 1960 to 2001, although slower than the national average. Transportation continues to be the largest contributor to carbon emissions in SD.

Figure 11: SD Carbon Emission 1960 through 2001



CDIAC - http://cdiac.ornl.gov/trends/emis_mon/stateemis/graphics/graphics.html

Although public and political pressure to address emission trends has taken a back seat to the nation's economic recovery, there is a growing certainty that regulatory steps will be taken but the timing is unknown. Questions remain about what possible regulatory actions may be taken by the EPA and how those actions will affect resource cost or limit generation resource availability and construction.

Maximum Achievable Control Technology (MACT)

Clean Air Mercury Rule (CAMR) was established as an EPA administered cap and trade program back in March 2005. CAMR was vacated on February 8, 2008.

"EPA is developing air toxics emissions standards for power plants under the Clean Air Act (Section 112), consistent with the D.C. Circuit's opinion regarding the Clean Air Mercury Rule (CAMR). EPA intends to propose air toxics standards for coal- and oil-fired electric generating units by March 16, 2011."[4] This rule is called the Utility MACT rule. Final rule is expected by December 2011. Compliance will be required by November 2014- January 2015. Emission controls will require scrubber, baghouse and ACI controls.

"EPA extended the timeline for public input on the proposed mercury and air toxics standards for power plants. EPA will accept comment on the proposal until August 4, 2011. This extension applies to both the NESHAP and NSPS portions of the Mercury and Air Toxics Standards.

[3] **Executive Summary of the *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2009 pg10***
[4] Clean Air Mercury Rule Web Site - http://www.epa.gov/air/mercuryrule/

On May 3, 2011, the Agency proposed the Mercury and Air Toxics Standards. Since proposing this rule, EPA updated some of the mercury emissions data used to develop the proposed standards. The EPA does not expect the update, which corrects a calculation error with a small amount of the data, to change the types of pollution controls necessary to comply with the rule."[5]

CAIR

"Clean Air Interstate Rule (CAIR) issues should not affect plants west of the Mississippi as they are excluded from the rule. Furthermore, on December 23, 2008, the court remanded CAIR without vacature.

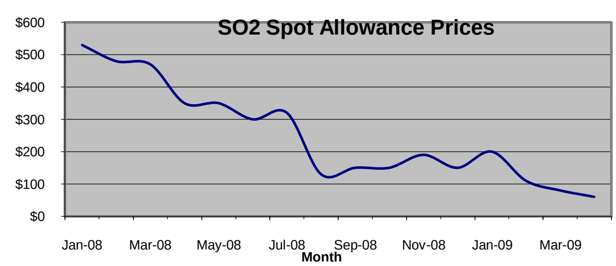
On July 6, 2011, the US Environmental Protection Agency (EPA) finalized a Cross-State Air Pollution Rule (CSAPR), that requires 27 states to significantly improve air quality by reducing power plant emissions that contribute to ozone and/or fine particle pollution in other states. CASPR was promulgated in July 2011, and compliance begins in 2012. This rule replaces EPA's 2005 Clean Air Interstate Rule (CAIR). The new rule does not include South Dakota and North Dakota. Neal 4 needs to be scrubbed and SNCR installed by 2014 to comply.

In a separate but related regulatory action, EPA also issued a supplemental notice of proposed rulemaking (SNPR) to require six states - Iowa, Kansas, Michigan, Missouri, Oklahoma, and Wisconsin - to make summertime NO_X reductions under the CSAPR ozone-season control program. Five of those states are already covered in the final rule for interstate fine particle pollution (PM2.5). With the inclusion of these states, a total of 26 states would be required to reduce ozone-season NO_X emissions to assist in attaining the 1997 8-Hour Ozone National Ambient Air Quality Standards (NAAQS). Finalizing this supplemental proposal would bring the total number of covered states under the CSAPR to 28. EPA issued a proposal instead of a final action for these states in order to provide additional opportunity for public comment on their linkages to downwind nonattainment and maintenance areas. EPA is proposing to finalize this proposal by late fall 2011." [6] MEC did file comments to disagree with these changes.

Sulfur Dioxide

Currently, NorthWestern is entitled to sufficient Sulfur Dioxide ($S0_2$) allowances to meet NorthWestern's requirements for the foreseeable future. Allowance market values for $S0_2$ have declined to a level below $100.00 per ton. The figure below displays the historical annual allowance price for $S0_2$. Future trends appear relatively flat.

Figure 12: SO_2 Spot Allowance Prices



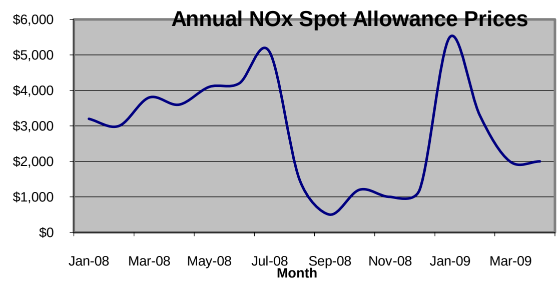
[5]Technology Transfer Network Air Toxics Web Site - http://www.epa.gov/ttn/atw/utility/utilitypg.html

[6] Cross-State Air Pollution Rule (CSAPR) Web Site - http://www.epa.gov/crossstaterule/

Nitrogen Oxides

The forward price forecast for NO_X is on a downward curve. Current prices for NO_X are at about $1,000 per ton and are forecasted to decline below $500. The following figure displays the historical annual allowance prices for NO_X. Future trends appear relatively flat.

Figure 8: NO_X Spot Allowance Prices



Description of Available Future Resources

While developing this Plan, NorthWestern considered a number of possible resource options for inclusion in the supply portfolio. Typically, the resource can be described by the fuel source (natural gas, nuclear, wind, etc.) and the technology utilized to convert the raw fuel supply into electricity. This chapter contains qualitative descriptions of resources considered in developing this Plan. Note that a few of these resources, such as solar, tidal and wave power, were not ultimately included in the modeled portfolios based on their current lack of availability as a tested and reliable source of power. Future procurement plans will continue to evaluate advances in generation technology and will modify the resources evaluated as appropriate.

The following descriptions provide basic information about available generating resources for consideration that may satisfy NWE-SD's forecasted need for baseload energy and peaking reserve capacity requirements in concert with existing resources. Some of the generating resource options were previously planned projects utilized below as proxies for what could be available in the market.

Baseload Facilities

While the Big Stone II project has been cancelled, the economic studies related to it are still representative of the projected costs for such a facility in this region. Therefore, that data will continue to be used as a benchmark for evaluating such resources.

Coal

Although coal remains one of the more economical options, due to uncertain environmental regulations and a continued push by the current administration to add regulations to new and existing coal fire generation, there has been little to no activity for the construction of coal fire generation in NorthWestern's region. In order to satisfy the needs for NorthWestern's load requirements in comparison to the size of a new plant, any new build would need to be a joint effort with other utilities.

Natural Gas Baseload Generation

Natural gas has not been used as a baseload fuel in the MAPP region due to price and availability of natural gas supply compared to regional coal supplies.

The most likely option for NorthWestern would be to install a Combined Cycle Combustion Turbine (CCCT) Power Plant that burns natural gas for fuel. The minimum size considered for feasible economics of the current technology is 150 MW. The unit would consist of 3 Combustion Turbines (CT) and 1 Steam Turbine (ST). Any of the three CT's could be used for Peaking duty. NorthWestern would need to contract out the excess capacity. Options for use as an intermediate duty generator are discussed in the next section.

Nuclear

Although the possibility of Nuclear power may still be a few years out, a focus on smaller modular units is moving forward and several of these technologies are scheduled to be in-service over the next ten years. The article below summarizes several of the nuclear technologies that have continued to move forward with more efficient, safer, and scalable nuclear solutions.

New Generation Reactors
http://mainland.cctt.org/istf2011/pages/Background/NewGenerationReactors.asp

Starting around 1950 the United Kingdom and the United States created the first nuclear reactors. Despite an overwhelming advance in technology, nuclear reactor technology has remained ultimately unchanged. New age nuclear reactor types fall into three categories: new light water reactors, small modular reactors, and the Generation IV Industries.

Next Generation Light-Water Reactors

There are two main types of light water reactors: pressurized water reactors (PWR) and boiling water reactors. PWRs currently control the nuclear reactor landscape.

Westinghouse is currently building four AP1000s in China. The Sanmen 1, which will be finished in 2013, will be the first operating AP1000. The U.S. plans to build six units which, pending the approval of the NRC, will be unveiled in 2016.

The Evolutionary Power reactor (EPR) is similar in nature to the PWR but is substantially larger. The EPR turbines can be maintained while it is functioning which will result in little downtime during its 60-year lifespan. The EPR is considerably safer against potential attacks than today's PWRs. The EPR has the highest efficiency, 36 percent, of converting thermal energy into electricity.

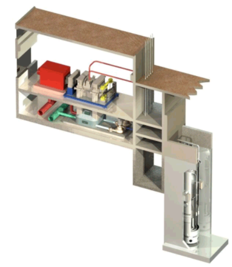
Four EPR's are currently under preliminary construction, one in both Finland and France, and two in China. The Finnish reactor is scheduled to be the first completed EPR. The U.S. plans to build a minimum of four EPRs pending the NRC reviews.

Small Modular Reactors

As opposed to the traditional nuclear power plants, which had a large focus on the mass amount of energy converted from single large plants, small modular reactors provide a more sizable and less financially risky personalized reactor. These reactors have the capabilities of using remote locations that are off the grid as a destination to create energy for the much larger metropolises. Small modular reactors allow for one of the modules to be closed for maintenance while the other modules generate energy, thus avoiding costly, long periods of down time designated to revamping already existing reactors. Two of the leading SMR are continuing development over the next several years.

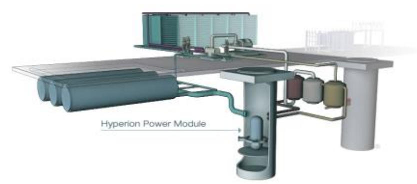
The NuScale reactor is a modular light water reactor that is geared toward replacing coal- and gas-fired plants. The NuScale reactor has many features that prove to be advantageous to the ever-growing nuclear renaissance.

NuScale reactors are scheduled to be unveiled and operational in 2018 after preliminary certification through the NRC, which is set for 2012.


Single-unit side view of the NuScale system design

http://www.nuscalepower.com/ot-Scalable-Nuclear-Power-Technology.php

The Hyperion Power Module (HPM) will have a thermal output of 70 megawatt and an electrical output of 25 MW. Modules can also be combined to increase their output and replace a medium or large nuclear reactor. The Hyperion Power Module can last between 5 and 15 years without being refueled.



HPM http://www.hyperionpowergeneration.com/

One of the sites at which the prototype module is being tested is the Savannah River Site at South Carolina. The prototype will be functional by 2020. The cost of the construction and operation of the prototype is estimated to be $50 million, which is about $2000 per kilowatt produced.

<u>Generation IV Reactors</u>

The most extravagant and revolutionary of the new-aged nuclear reactor types are the Generation IV reactors. These reactors use an array of newly innovated fuel and moderators, fast neutron reactors get rid of the moderator process altogether. These Reactors hold the promise of utilizing not only the initial fuel but also the spent waste of previously used fuel to create energy. In addition to the increased efficiency, these plants also offer increased safety provision. Some of the leading reactors include:

- Toshiba 4S with a reactor design approval set for 2012
- Next Generation Nuclear Plant on schedule in as early as 2011 the US Department of Energy plans to implement one of the proposals from General Atomics and Westinghouse.
- Power Reactor Innovative Small Module (PRISM) currently under development

- Small Secure Transportable Autonomous Reactor (SSTAR) - NRC plans to approve the SSTAR by a new process called license-by-test rather than the normal license-by-design.
- TerraPower TP-1 project started in 2006 but expects a test reactor to be ready in 2020.

Natural Gas Intermediate Generation

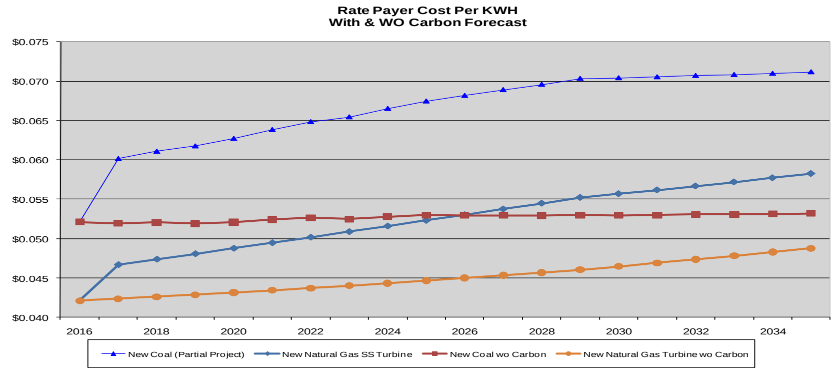
NorthWestern is constructing a 50+ MW peaking power supply plant near Aberdeen, SD. The power plant will use natural gas from NorthWestern Energy's distribution system via the Northern Border Pipeline. This facility could be upgradeable to a combined cycle 3 on 1 plant for future use with service from the same upgraded natural gas facilities. This conversion would provide NorthWestern a 150 MW to 175 MW intermediate power supply.

Baseload Coal vs. NG Intermediate Generation Comparison

Options for baseload generation are limited in the MAPP region. The construction of a new coal plant would be unlikely given the current risk for additional environmental requirements. Plants that are being considered are mostly natural gas intermediate power supply. Because of NorthWestern's load profile and market sales availability of natural gas generation, natural gas intermediate power supply was used to compare with baseload coal below. The charts assume a production of 718,000 MWH annually with a 2016 natural gas supply cost of $5.24 per MMBtu using a NYMEX market forecast from 7/14/2011. This comparison includes a carbon dioxide cost adder based on a carbon tax.[7] Currently there are no credible proposals for a carbon tax or cap and trade in front of the legislature.

The results of this high level comparison show the difference between a natural gas intermediate generation plant and a baseload coal plant for ratepayer costs in the figure below. Due to fluctuation in natural gas pricing, rates to customers have an upward risk. Any carbon legislation would have an upward push on natural gas prices. Continued increases from the EPA for environmental controls on new coal generating facilities will push cost of coal generation higher. With current natural gas pricing, natural gas generation remains favorable to new coal generation.

Figure 9: Coal vs. NG – Rate Payer Cost Per KWH



[7] Carbon Tax Center - http://www.carbontax.org/issues/implementing-carbon-taxes/

Wind Turbine Farms

Commercial wind generators currently range in size from around 1 to 3 MW per unit. Wind generators are generally arranged in a series of farms to capture economies of scale with some farms having total installed capacity of several hundred megawatts.

While not technically a dispatchable "baseload" technology due to the variable nature of wind, these facilities may offer solutions to a portion of baseload energy requirements. However, relatively low capacity factors limit their contribution as solutions to capacity requirements. They have the advantages of zero fuel cost and zero air emissions and the disadvantage of requiring load balancing reserves due to their non-dispatchable nature. To date, the ancillary service cost of load regulation for wind has not been specifically identified or filed as a tariff within the immediate WAPA balancing authority, but this is likely to change as saturation of wind resources increases. MAPP accredits monthly capacity from these facilities based on a three-year running average output history. Typical accredited monthly capacity factors in this area range from a low of less than 10% to more than 40% of design rating depending on time of year. Summer ratings are usually the lowest, with highest ratings during winter and spring months.

A number of wind energy developers have shown interest in locating facilities in or near the NWE-SD service area with either equity partnership or PPA arrangements. NWE-SD's first experience with a wind resource is a PPA for 25 MW of wind from the Titan 1 project near Ree Heights, SD. This facility provides approximately 5% of NWE-SD annual retail sales energy requirement.

Peaking Capacity Facilities

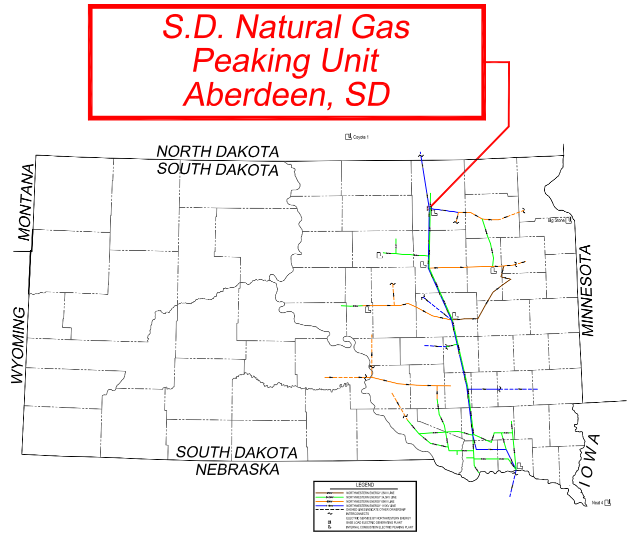
The NWE-SD annual load profile has the characteristic of a relatively low load factor historically falling between 50% and 60%. In other words, the annual average system demand is typically about one-half of the annual peak hourly demand. This is due primarily to a high saturation of residential and commercial air conditioners used only during summer. The net result is the need for peaking resources to satisfy high demand for only a very few number of hours during the summer months.

Simple Cycle Combustion Turbines

This technology uses either natural gas or fuel oil as the fuel source and can be readily located within the NWE-SD service area. (NWE-SD currently has approximately 75 MW of combustion turbine capacity). These units have relatively low capital and fixed O&M requirements compared to baseload units, but have higher fuel cost due to the use of distillate or gas fuels. Heat rates are in the range of 10,000 to 11,000 BTU/KWH. They offer remote control and provide area protection for increased system reliability as well as satisfying the need for required reserve capacity.

Aberdeen

NorthWestern-SD currently has a 50 MW combustion turbine unit under construction and scheduled to be installed by the end of 2012 in Aberdeen.



Small Distributed Generators

Having much the same resource characteristics as combustion turbines, these units are typically small (between 1 and 5 MW) diesel engine generators generally using fuel oil as the fuel source. (NWE-SD currently has 32 MW of distributed diesel units). Due to their smaller size they offer the advantage of providing area protection in distant, lower load areas and can help defer transmission upgrades otherwise required solely to cover short duration peak loads. However, they generally exhibit higher non-fuel operations and maintenance costs per MW than combustion turbines due to controls, maintenance and communications. NWE currently is exploring options to look at Distributed generation in three possible locations in South Dakota.

Capacity Purchase Contracts

This resource has historically offered economically attractive peaking reserve capacity for the summer months. In addition to the capacity cost, firm transmission service must also be purchased. Based on responses to RFP's in recent years, the availability of summer capacity contracts in this region appears to be decreasing. This reflects a similar forecast to that which MAPP, MISO, and NERC have predicted which was discussed previously in the Upper Midwest Landscape section. The magnitude of MWs purchased each year has grown to represent nearly 25% of NorthWestern's current annual peak demand and is now purchased for 4 months per year. Also, recent NWE-SD system load trends indicate that additional reserve capacity beyond owned assets may be needed during winter months for the first time in company history. This resource should continue to be considered, but it may be best used as "filler" between steps in acquisition of owned assets. With the addition of Aberdeen Generating Station No. 2 this will help reduce our overall need for capacity and take away the need for looking for capacity during the winter months for a few years.

Capacity & Firm Energy Plan

Capacity Additions – Firm Energy and Capacity Purchases - Retirements: 2012 – 2021.

NorthWestern Energy
Delivering a Bright Future

2012:

Capacity Additions:

None planned. Capacity reserve forecast remains positive (+39.3 MW).

Firm Capacity Purchases:

80 MW (June – Sept) from MidAmerican Energy (MEC) through a 3-year System Participation Power Agreement. 2012 is the final year of that agreement.

5 MW (May – October) from Basin Electric Power Cooperative (BEPC) through a 4-year System Participation Power Agreement. 2012 is the first year of that agreement.

Firm Energy Purchases:

NorthWestern's South Dakota annual system energy requirements are supplied through a portfolio of resources including owned shares of 3 coal-fired baseload units, a long-term non-firm energy supply agreement with WAPA and a wind farm PPA. Other firm energy resources available to be scheduled, as needed when economics and/or operational conditions warrant, are owned peaking units (natural gas and/or diesel) and the energy portion of the MEC and/or BEPC System Participation Agreements discussed above. For 2012, it is forecast that 88.3% of the annual system energy requirement will be from baseload units and the wind PPA. The remaining 11.7% is expected to be purchased, at market-based rates, through the WAPA non-firm energy agreement.

2013:

Capacity Additions:

A 52-MW (summer rating) simple-cycle combustion turbine begins commercial operation (construction began in October 2011). Capacity reserve forecast remains positive (+8.3 MW).

Firm Capacity Purchases:

11 MW (May – October) from Basin Electric Power Cooperative (BEPC) through a 4-year System Participation Power Agreement. 2013 is the second year of that agreement.

Firm Energy Purchases:

Same as 2012 with the following exceptions. (a) The MEC System Participation Agreement will have expired making that energy unavailable. (b) For 2013, it is forecast that 87.2% of the annual system energy requirement will be supplied by baseload units and the wind PPA. The remaining 12.8% is expected to be purchased, at market-based rates, through the WAPA non-firm energy agreement.

2014:

Capacity Additions:

None planned. Capacity reserve forecast remains positive (+8.4 MW). In anticipation of expected capacity deficits for 2016 – 2021, it is planned to issue Requests for Proposal(s) ("RFP(s)") for capacity and energy supplies for the 2016 – 2021 time period or beyond as conditions then warrant. Evaluation of responses to RFP(s) will guide capacity additions and/or purchases for the 2016 – 2021 (or beyond) time frame, including consideration of conversion of the 2012 Combustion Turbine from simple- to combined-cycle operation. That conversion would add approximately 95 MW (summer rating).

Firm Capacity Purchases:

15 MW (May – October) from Basin Electric Power Cooperative (BEPC) through a 4-year System Participation Power Agreement. 2013 is the third year of that agreement.

Firm Energy Purchases:

Same as 2013 with the following exceptions. For 2014, it is forecast that 89.4% of the annual system energy requirement will be supplied by baseload units and the wind PPA. The remaining 10.6% is expected to be purchased, at market-based rates, through the WAPA non-firm energy agreement.

<u>2015:</u>

Capacity Additions:

None planned. Capacity reserve forecast remains positive (+8.5 MW)

Firm Capacity Purchases:

19 MW (May – October) from Basin Electric Power Cooperative (BEPC) through a 4-year System Participation Power Agreement. 2013 is the fourth and final year of that agreement.

Firm Energy Purchases:

Same as 2014 with the following exceptions. For 2015, it is forecast that 78.5% of the annual system energy requirement will be supplied by baseload units and the wind PPA. This notable reduction from historic levels in baseload energy for 2015 is the result of a planned outage of one of NorthWestern's baseload units (Big Stone) in order to bring new emission control equipment on line. The remaining 21.5% is expected to be purchased, at market-based rates, through the WAPA non-firm energy agreement and, if and when needed, through the BEPC System Participation Agreement.

<u>2016:</u>

Capacity Additions:

To be determined. As discussed in the 2014 section, additions and/or purchases will be guided by actions prescribed by evaluations of the 2014 RFP's. Otherwise, without action, forecasted capacity reserves would become increasingly negative (-14.5 MW to -35 MW) throughout the period.

Firm Capacity Purchases:

See comment immediately above regarding RFP evaluations.

Firm Energy Purchases:

Same as 2015 with the following exceptions. For 2016, it is forecast that 90.1% of the annual system energy requirement will be supplied by baseload units and the wind PPA following the "return to normal" annual availability of the Big Stone Plant. The remaining 9.9% is expected to be purchased, at market-based rates, through the WAPA non-firm energy agreement and, if economically feasible, yet-to-be determined sources that will be the result of the 2014 RFP's.

<u>2017 - 2021:</u>

Capacity Additions:

To be determined. As discussed in the 2014 section, additions and/or purchases will be guided by actions prescribed by evaluations of the 2014 RFP's. Otherwise, without action, forecasted capacity reserves would become increasingly negative (-14.5 MW to -35 MW) throughout the period.

Firm Capacity Purchases:

See comment for 2016 regarding RFP evaluations.

Firm Energy Purchases:

Information regarding baseload power plant planned maintenance outage schedules during this time frame is not yet available. However, historic plant availability patterns are expected to prevail which would result in the owned baseload plants and the wind PPA continuing to supply the vast majority of system energy requirements. However, with normal system load growth, the percentage of system energy requirements supplied by the baseload and the wind PPA resources will slowly decline from the upper 80 percentile area to the lower 80 percentile area during the period.

The remaining annual energy balances are expected to be purchased, at market-based rates, through the WAPA non-firm energy agreement and, if economically feasible, yet-to-be determined sources that will be the result of the 2014 RFP's. NOTE: The current WAPA non-firm energy agreement expires at the end of 2020. During the 2017 – 2019 time frame, efforts will be undertaken to renew this contract for 2021 and beyond. If those efforts are unsuccessful, other energy resources will be pursued, including, but not limited to, conversion of the 2013 combustion turbine from simple- to combined-cycle (if not already done as discussed in the 2014 section), system participation agreements with other utilities, and/or off-system market purchases with marketing entities other than WAPA.

Planned Retirements: 2012 – 2021

There are no planned generating unit retirements throughout the 2012 – 2021 planning period. However, six small diesel engine-driven peaking generators totaling 8.3 MW at two locations will be reclassified as "emergency only" beginning in 2013. As "emergency only" units, they can no longer be deemed to be accredited capacity in the MRO. This action is thought to be necessary and appropriate in order to comply with provisions of the EPA Reciprocating Internal Combustion Engines (RICE) NESHAP rules that become effective in 2013. While these units could be retrofitted with appropriate emission controls, that action is deemed uneconomic for these units due to their small individual size (as small as 0.5 MW), age (as old as 63 years) and high-cost fuel type (diesel fuel only). With the "emergency only" classification (as defined in EPA rules), these units will be allowed to continue to provide system reliability in the event of local area transmission or distribution outages.

The effect of this reduction of 8.3 MW of accredited capacity in 2013 was included in developing the Capacity Additions plan discussed above.

Risk – Uncertainty Analysis

RTO Structure and Transmission

NorthWestern – South Dakota status on joining a RTO still remains a question. The decision has been made to sunset the MAPP PRSG. With Mid-American joining MISO on September 1st of this year and the Nebraska companies going to the SPP, there are few left that have strong connections to the Western Area Power Administration (WAPA). WAPA remains neutral as to their interests in going to MISO or SPP. NorthWestern –South Dakota needs to wait and see what happens to WAPA before making a decision. Having nine connection points with WAPA makes NorthWestern almost bound to follow wherever WAPA goes. Although, the market has been in place for a couple years in MISO, they still seem to be working out the bugs. SPP is going to be starting its market shortly. They appear to have learned from MISO mistakes. This is the main reason that the Nebraska utilities decided to join SPP. We will continue dialog with WAPA on options they are looking at and try to express NorthWestern's views on what should happen in everyone's best interests. PRSG's groups in MISO and SPP vary from the MAPP procedures regarding reserves, which could have an impact on capacity requirements. WAPA late this summer had a study done for the IS looking at three options for them to explore. The options were ; 1. Join MISO , 2. Join SPP 3. Do a Hybrid to put generation in MISO and SPP as to cover their loads in each and stay away from joining as a member. At this point they are leaning to option 3. We will continue to follow this.

Baseload Availability

There are no planned baseload plants in the region. If NorthWestern is unable to secure baseload or intermediate capacity, continued increases in energy purchase from the open market will be required.

Future Capacity Contract Availability

A risk that also needs to be considered is available future contract capacity described above in the capacity purchase contracts section. Until NorthWestern determines ultimate participation in a planning reserve sharing group following MAPP's termination, long term capacity purchase arrangements are difficult to identify. In the event that NWE were to join the planning reserve sharing groups of MISO or SPP, capacity-import limitations will also have to be considered. Right now we are contracting with WAPA as our BA in doing a yearly LOLE study with MISO. This is placing our planning reserve requirement to be 7.1 % year.

CO_2 Tax

NorthWestern will continue to monitor the legislative developments at the national and state levels. Until some clearer direction is given, the short term effects of CO2 regulations are not expected, but most of the long term evaluations expect to have an effect on utility portfolios and generation costs. That value of that future affect is very unclear.

Load regulation with WAPA for Wind

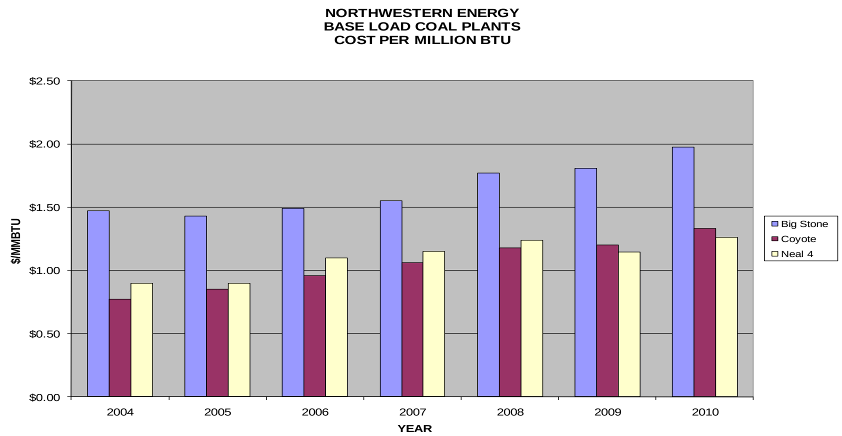
To date, a discrete ancillary service charge for load regulation of wind has not been identified within the WAPA balancing authority, but this is likely to change as saturation of wind resources develops.

Coal Price

Jointly Owned coal-fired plants were used to generate most of the electric energy utilized for South Dakota operations. The balance is supplied by power purchased from the open market.

Fuel for NorthWestern's jointly owned baseload generating plants is provided through supply contracts of various lengths with several coal companies. Coyote is a mine-mouth generating facility. Neal #4 and Big Stone I receive their fuel supply via rail. Upward pressures on coal and transportation costs can result in increased in costs to customers through fuel cost recovery mechanisms in rates. The average cost, inclusive of transportation costs, by type of fuel burned is shown below for the periods indicated:

Figure 14: Coal Plant Fuel Costs



The average cost by type of fuel burned and the delivered cost per ton of fuel varies between generation facilities due to differences in transportation costs and owner purchasing power for coal supply.

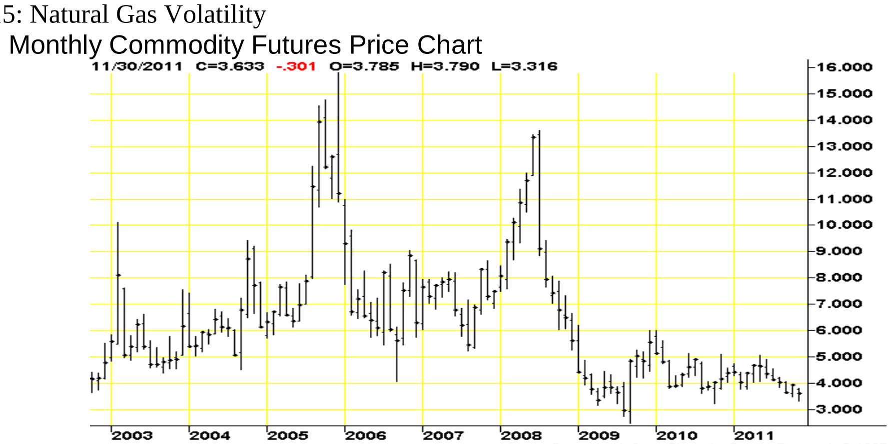
A contributing factor in future coal-based energy pricing involves the potential implementation of a tax on CO_2 emissions (a.k.a. carbon tax). While the outcome of federal energy legislation is unknown at this time, any federally mandated costs related to carbon emissions would increase retail energy rates.

Due to the preponderance of coal-based electric generation in the upper Midwest, viable alternatives to coal are few. Natural gas-based generation would be assessed a carbon tax, albeit at a reduced rate and would be subject to the higher volatility of the natural gas commodity price. Limited availability and higher, more volatile pricing of natural gas and fuel oil reduces the desirability of these fuels for large base load generation.

Fuel Price Volatility

The figure below displays the historical First of Month (FOM) natural gas prices at NYMEX. Since 2003 the natural gas FOM prices have ranged from under $3 to over $15.

Figure 15: Natural Gas Volatility

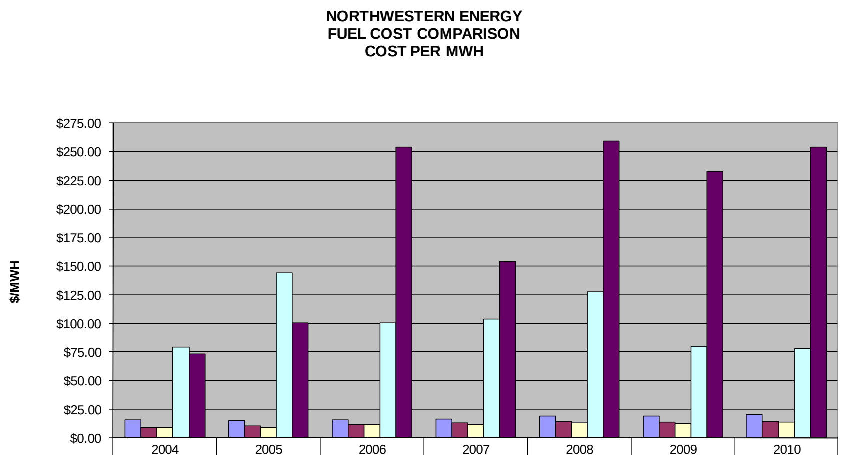


http://futures.tradingcharts.com/chart/NG/M

Fuel Price Comparison

The figure below shows the relative price rank of fuels used by NorthWestern for generation. Historically, coal has much better price stability and overall lower cost when compared to natural gas or fuel oil.

Figure 16: Generation Fuel Costs Comparison



	2004	2005	2006	2007	2008	2009	2010
Big Stone	$15.44	$15.02	$15.65	$16.28	$18.59	$18.90	$20.24
Coyote	$9.16	$10.12	$11.42	$12.61	$14.04	$13.34	$14.46
Neal 4	$9.27	$9.27	$11.33	$11.85	$12.77	$12.10	$13.36
Natural Gas	$79.35	$144.33	$100.38	$103.74	$127.80	$79.88	$77.69
Fuel Oil #2	$73.02	$100.45	$254.08	$154.17	$259.16	$232.92	$254.05

Purchase Power Price

The purchase price during peak periods is very volatile and is dictated by current and future market conditions such as supply and demand, gas prices, and oil prices. With the economy currently struggling, the overall demand has not yet recovered. Energy continues to be readily available on the market at lower prices. Natural gas prices over the past 12 months have continued to decline and with the current supply forecasts, future strips remain near $5. Oil pricing has seen some rise and drop over the same time frame. Purchased power costs tend to follow the markets. Regional market prices continue to be somewhat lower than the last few years. This trend is likely to continue until economic activity increases or government regulation limits the available generation.

NorthWestern Energy's need for purchased power is higher during the time periods when one or more of its jointly owned coal fired units is off-line for maintenance. Unplanned outages lead to higher replacement power costs than planned outages due to market timing.

Appendix A

Electric Plant Capacities

NORTHWESTERN ENERGY - SD/NE
ELECTRIC PLANT CAPACITIES
AS OF DECEMBER 31, 2010

Updated by Cory Huber 1/4/11

			GENERATOR	2010 CAPABILITY			
			NAME PLATE	SUMMER	WINTER	AT TIME	INSTALL
LOCATION	SAP LOCATION	TYPE	RATING (KW)	(5/10-10/10)	(11/09 - 4/10)	OF PEAK	DATE
Aberdeen, SD**							
Aberdeen	2ABABN0040	Combustion Turbine	28,800	20,520	28,000	20,520	1978
Clark, SD**							
Unit #1	2HUCLK0060	Internal Combustion	2,750	2,600	2,720	2,600	1970
Faulkton, SD**							
Unit #1	2HUFLK0061	Internal Combustion	2,750	2,500	2,500	2,500	1969
Highmore, SD**							
Unit #1		Internal Combustion	675	560	600	560	1948
Unit #2	2HUHMR0063	Internal Combustion	1,360	1,250	1,330	1,250	1960
Unit #3		Internal Combustion	2,750	2,630	2,750	2,630	1970
Huron, SD*							
Unit #1	2HUHUR0064	Gas Turbine	15,000	11,030	14,500	11,030	1961
Unit #2	2HUHUR0062	Gas Turbine	42,925	43,700	49,000	43,700	1991/92
Redfield, SD**							
Unit #1		Internal Combustion	1,360	1,300	1,320	1,300	1962
Unit #2	2HURED0065	Internal Combustion	1,360	1,300	1,320	1,300	1962
Unit #3		Internal Combustion	1,360	1,300	1,320	1,300	1962
Yankton, SD*							
New Plt. #1		Internal Combustion	2,276	2,170	2,170	2,170	1974
New Plt. #2	2YKYNK0080	Internal Combustion	2,750	2,750	2,750	2,750	1974
New Plt. #3		Internal Combustion	6,500	6,500	6,500	6,500	1975
New Plt. #4		Internal Combustion	2,000	2,000	2,000	2,000	1963
Mobile Unit**							
Unit #2		Internal Combustion	1,750	1,750	1,750	1,750	1991
Unit #3		Internal Combustion	2,500	2,000	2,000	2,000	2009
* Manned less than 24 hours							
** Unmanned							
Big Stone, SD							
Unit #1	1BSBSP0600	Steam	122,850 *	111,150	111,150	111,150	1975
*Name Plate		525,000	NWPS Share 23.4% = 122,850				
Summer Capacity		475,000	NWPS Share 23.4% = 111,150				
Big Stone, SD							
Diesel		Diesel	269 *	269	269 #	269	1975
*Name Plate		1,149	NWPS Share 23.4% = 269				
Summer Capacity		1,149	NWPS Share 23.4% = 269				
Sioux City, IA							
Neal #4	1NLNLP0630	Steam	55,558 *	56,110	56,110	56,110	1979
*Name Plate		639,996	NWPS Share 8.681% = 55,558				
Summer Capacity		646,354	NWPS Share 8.681% = 56,110				
Beulah, ND							
Coyote I	1CYCYP0620	Steam	45,578 *	42,700	42,700	42,700	1981
*Name Plate		455,780	NWPS Share 10% = 45,578				
Summer Capacity		427,000	NWPS Share 10% = 42,700				
TOTAL CAPACITY (kw)		Steam	223,986	209,960	209,960	209,960	
		Other	119,135	106,129	122,799	106,129	