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**RECEIVED**

JAN 03 2012

**PUBLIC SERVICE COMMISSION**

December 30, 2011

Darrell Nitschke, Executive Director  
North Dakota Public Service Commission  
600 E. Boulevard, Dept. 408  
Bismarck, ND 58505-0480

RE: MRES Annual Ten-Year Plan

Dear Mr. Nitschke:

Missouri River Energy Services (MRES) for itself and as agent for Western Minnesota Municipal Power Agency (Western Minnesota) submits this Ten-Year Plan, pursuant to NDCC 49-22-04. This report was prepared in accordance with the North Dakota Public Service Commission's Guidelines for compliance with the requirements of NDCC 49-22-04.

Enclosed is an original and ten copies of the plan.

If you have any questions regarding this report, please contact me at 605-338-4042 or [derek.bertsch@mrenergy.com](mailto:derek.bertsch@mrenergy.com).

Sincerely,

A handwritten signature in black ink that reads "Derek Bertsch".

Derek Bertsch, Attorney at Law  
Staff Attorney, Legal

Cc: NDPSC (10 + Original)  
Service List



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# Missouri River Energy Services North Dakota Ten-Year Plan

## 2011

Submitted to the  
North Dakota Public Service Commission

December 30, 2011

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## **INTRODUCTION**

Missouri Basin Municipal Power Agency, doing business as Missouri River Energy Services (MRES), is a not-for-profit, member-based, joint-action agency that provides power, energy, transmission, and related services to its 61 member communities in Iowa, Minnesota, North Dakota, and South Dakota. All but one of the 61 MRES members have long-term power sales agreements with MRES and also are entitled to receive a wide range of energy-related services. MRES is governed by a 13-member Board of Directors elected by and from its member communities.

Western Minnesota Municipal Power Agency (Western Minnesota) owns fossil fuel generating facilities in Wyoming, South Dakota and Iowa and wind generation in Minnesota. Pursuant to a long-term contract between Western Minnesota and MRES, MRES has exclusive rights to the output of these facilities to meet its power supply obligations to its members.

MRES for itself and as agent for Western Minnesota submits this Ten-Year Plan, pursuant to NDCC 49-22-04. MRES prepared this Ten-Year Plan in accordance with the North Dakota Public Service Commission's (Commission) Guidelines for compliance with the requirements of NDCC 49-22-04.

**SECTION A: Existing Energy Conversion Facilities**

Currently, the largest MRES generation resources are a 281 MW share of Laramie River Station (LRS), a coal plant located near Wheatland, Wyoming, and the three-unit Exira Station located near Atlantic, Iowa, with a total rating of 140 MW. MRES energy conversion facilities also include the Watertown Power Plant (WPP), an oil-fired combustion turbine located in Watertown, South Dakota, with a summer rating of 48.8 MW. Lastly, MRES operates and purchases output from four wind turbines located just west of Worthington, Minnesota. The rated output of the units totals 3.7 MW.

MRES has no plans to retire any of its existing energy conversion facilities within the next ten years.

**SECTION B: Energy Conversion Facilities Under Construction**

MRES does not have any energy conversion facilities under construction.

**SECTION C: Proposed Energy Conversion Facilities on Which Construction is Intended Within the Ensuing Five Years**

MRES is in the process of planning to develop a hydroelectric generating facility at the Red Rock Reservoir on the Des Moines River near Pella, Iowa. The design output of the Red Rock Hydroelectric Project (RRHP) will be approximately 36 MW, but the project will be capable of generating up to 55 MW at certain times of the year when water is plentiful. The RRHP will have generator outlet facilities consisting of a 69 kV transmission line extending 4.5 miles. Parts of the transmission line will be buried (a total of about 0.8 mile or 4,200 feet) and the remainder of which will be overhead. MRES expects construction to begin in 2013 with the project becoming operational by early 2016. A map of the RRHP will be provided upon request.

The RRHP is expected to have only minimal effects on the environment. The license granted by the Federal Energy Regulatory Commission for construction, operation and maintenance of the RRHP requires a number of measures to protect or enhance water quality, fish and aquatic resources, wildlife, recreation, and cultural resources at the project. These measures will ensure that the project will have only a minimal effect on the surrounding environment.

**SECTION D: Proposed Energy Conversion Facilities During the Next Ten-Year Time Period**

Other than the RRHP noted in Section C, MRES has no other proposed energy conversion facilities as defined by Chapter 49-22-03 of the North Dakota Century Code.

MRES continues to evaluate opportunities for additional renewable resources to ensure continuing compliance with the Renewable Energy Objective goals of North Dakota and South Dakota and the requirements of the Minnesota Renewable Energy Standard.

**SECTION E: Existing Transmission Facilities (Electric)**

MRES currently has no existing transmission facilities in North Dakota.

**SECTION F: Existing Transmission Facilities (Pipeline)**

Not applicable to MRES.

**SECTION G: Proposed Transmission Facilities on Which Construction is Intended Within the Ensuing Five Years (Electric)**

The participation of MRES in the CapX2020 transmission initiative is described in Section J. One of three 345 kV transmission lines, Fargo-Monticello, making up “Phase I” would begin at a new Bison Substation near Fargo and terminate at Monticello, Minnesota, with intermediate substations near Alexandria and St. Cloud, Minnesota.<sup>1</sup> General corridors for the North Dakota line segment have been identified and activities for acquiring permits are underway, which include the following major permits:

- North Dakota:
  - Certificate of Public Convenience and Necessity (CPCN)
  - Certificate of Corridor Compatibility
  - Route Permit
- Federal
  - U.S. Army Corps of Engineers
  - U.S. Fish and Wildlife Service
  - U.S. Federal Aviation Administration
  - U.S. Department of the Treasury, Bureau of Alcohol, Tobacco, Firearms and Explosives

On May 22, 2009, the Minnesota Public Utilities Commission issued an order approving a Certificate of Need for the three CapX2020 345 kV projects, including the project that will terminate in North Dakota. The project segments are targeted for in-service dates in the 2011-2015 timeframe.

On July 8, 2010, the Minnesota Public Utilities Commission granted a Route Permit for the 345 kV transmission segment between Monticello and St. Cloud, MN.

On June 10, 2011, the Minnesota Public Utilities Commission granted a Route Permit for the 345 kV transmission segment between the ND/MN border and St. Cloud, MN.

Additional information can be found at [www.capx2020.com](http://www.capx2020.com).

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<sup>1</sup> MRES held rights to as much as 11% of the Fargo Project. MRES chose to assign its rights to Western Minnesota Municipal Power Agency (Western Minnesota). While Western Minnesota will be the owner of the 11% share of CapX Fargo Phase 1, it will continue to be associated with MRES and the overall utility operations are unchanged.

**SECTION H: Proposed Transmission Facilities on Which Construction is Intended Within the Ensuing Five Years (Pipeline)**

Not applicable to MRES.

**SECTION I: Proposed Transmission Facilities During the Next Ten-Year Period (Electric and Pipeline)**

See response to Section G.

**SECTION J: Regional Coordination**

MRES closely coordinates its transmission planning with other organizations to ensure cost-effectiveness and electric-service reliability in the region. MRES is a member of and participates directly in several regional entities:

- The Midwest Independent Transmission System Operator (MISO), which administers a tariff providing for regional transmission services, energy and ancillary services markets, and resource adequacy requirements. MISO also has responsibilities for regional transmission planning, coordination, and expansion. MRES is a full member and market participant. Further information about MISO is available on-line at [www.misoenergy.org](http://www.misoenergy.org). MISO's transmission expansion plans (MTEP-2011 being the most-recent approved plan) are also available at their web site under the "Planning" tab and contained in the "Transmission Expansion Planning (MTEP)" link.
- The Midwest Reliability Organization (MRO), a non-profit organization of regional utilities established to develop regional reliability standards and ensure compliance with standards of the North American Electric Reliability Corporation (NERC) as well as its own. Further information about MRO is available on-line at [www.midwestreliability.org](http://www.midwestreliability.org) and about NERC at [www.nerc.com](http://www.nerc.com).
- The Mid-continent Area Power Pool (MAPP), which has historically provided resource pooling and transmission coordination functions for its members across a large part of the upper Midwest. For MRES and other MISO members, these functions have largely been transitioned to MISO, however MRES continues to participate in MAPP to support needed activities associated with other MRES facilities that remain outside of the MISO. Further information about MAPP is available on-line at [www.mapp.org](http://www.mapp.org).
- MISO conducts Subregional Planning Meetings (SPMs) four times each year to provide a forum for coordination and discussion of transmission issues and proposed projects among utilities and other interested stakeholders.
- The Minnesota Transmission Owners (MTO) group, a consortium of 16 sponsoring utilities and three participating government agencies, fulfills the utilities statutory obligations for transmission planning in the state of Minnesota. These obligations include the development of the Minnesota Biennial Transmission Plan, as well as studies associated with meeting the Minnesota Renewable Energy Standard (RES) requirements. Further information about the MTO group is available at [www.minnelectrans.com](http://www.minnelectrans.com).

- CapX2020, a joint initiative of eleven regional transmission utilities to develop a long-range vision and transmission expansion projects to ensure that load in the region can be served reliably, provide outlet capability for renewable and other generation additions and support regional reliability of the transmission system. As a first phase of transmission expansion, all four CapX2020 projects have received Certificates of Need from the Minnesota Public Utilities Commission. The following is a description of the proposed 345 kV and 230 kV projects:
  - The **Hampton – Rochester - La Crosse 345 kV Project** is an approximately 140-mile transmission line project between the southeast corner of the Twin Cities, connecting to a new substation in north Rochester, continuing eastward crossing the Minnesota River near Alma, Wisconsin and continuing south in Wisconsin to La Crosse, Wisconsin. This project also includes a new 161 kV transmission line between the new North Rochester Substation and the existing North Hills substation in northwest Rochester.
  - The **Fargo - Monticello 345 kV Project** is an approximately 240-mile, 345 kV transmission line between Fargo, North Dakota and Alexandria, Monticello and St. Cloud, Minnesota. The project has received two route permits from the MN Public Utilities Commission. The first route permit is for a 28-mile transmission line between Monticello, Minnesota to a new Quarry substation near St. Cloud, Minnesota. The project includes a 115 kV transmission line connector between the existing St. Cloud to Sauk River 115 kV line and a new Quarry substation. The second route permit is for an approximately 230-mile transmission line between the new Quarry substation near St. Cloud, Minnesota and the MN/ND border near Fargo, North Dakota.
  - The **Brookings County – Hampton 345 kV Project** is an approximately 240-mile, 345 kV transmission line between Brookings County, South Dakota and the southeast corner of the Twin Cities. This project includes a 25-mile, 345 kV segment from the Lyon County substation near Marshall, Minnesota to a new Hazel Creek Substation in the Granite Falls area, a six-mile, 230 kV transmission line from Hazel Creek to the Minnesota Valley Substation in Granite Falls and a 5-mile 115 kV transmission line from Cedar Mountain substation to the Franklin substation. The final MN route permit was approved by the MN Public Utilities Commission in April 2011. The South Dakota Public Utilities Commission approved the facility permit in June 2011.
  - The **Bemidji - Grand Rapids 230 kV Project** is a 68-mile, 230 kV transmission line project from the Wilton substation near Bemidji, Minnesota to the Boswell substation near Grand Rapids, Minnesota. The MN Certificate of Need and route permits have been approved by the MN Public Utilities Commission.

CapX2020 and the MTO group have engaged in several planning studies that will provide an updated vision of the transmission system to meet needs further into the future. The studies were closely coordinated with MISO, neighboring transmission owning utilities and a diverse group of stakeholders formalized as the Technical Review Committee. MISO also has numerous studies underway with similar objectives, but that consider a broader geographic area. MRES and the CapX2020 utilities actively

participate in these studies. The studies listed below were intended to provide a roadmap for cost effective transmission expansion that will integrate well with future scenarios, meet future needs and provide flexibility for changing conditions.

- Southwest Twin Cities – Granite Falls Transmission Upgrade & Minnesota Renewable Energy Standard Update: This study provides an updated Vision Plan that addresses reliability needs, the 2016 & 2020 milestones of the Minnesota Renewable Energy Standard, and regional renewable energy supply needs. It has been completed and can be found at [www.minnelectrans.com](http://www.minnelectrans.com).
- Capacity Validation Study (CVS): This study focused on the impacts that specified transmission projects, taken individually or in combination, have on the ability to incorporate additional generation into the system. It provides an estimate of how much additional generation could be added at assumed locations by combinations of transmission projects. This study also sought to verify and validate the transfer capabilities estimated by other project studies. It has been completed and can be found at [www.minnelectrans.com](http://www.minnelectrans.com).
- Facilities Study: Manitoba Hydro TSR 500 kV Option 1: This study was commissioned by MISO to evaluate a transmission design alternative for adding 1100 MWs of hydro generation from Manitoba, Canada to the Upper Midwest U.S. The study results were issued in May 2010 and are available through MISO.
- Dispersed Renewable Generation (DRG) studies: Dispersed renewable generation studies were required as part of the Minnesota's Next Generation Act of 2007. Phase One was completed in June 2008; Phase Two was completed in September 2009. The studies are available on the Minnesota Office of Energy Security [website](http://www.minnelectrans.com).

Further information about CapX2020, the proposed projects, and studies are available online at [www.capx2020.com](http://www.capx2020.com) and [www.minnelectrans.com](http://www.minnelectrans.com).

MRES is a participant in the Upper Midwest Transmission Development Initiative (UMTDI). UMTDI was developed by the governors offices and public utilities commission of five Midwest states (Iowa, Minnesota, North Dakota, South Dakota, and Wisconsin) to generate consensus around a plan and cost allocation for transmission development in the Upper Midwest region, and to promote economic development, assure reliability and provide access to and transport of wind and other renewable energy sources from source to load.

- MRES was a participant in the Regional Generation Outlet Study (RGOS) led by MISO. The goal of the RGOS effort was to develop transmission projects that facilitate the state renewable energy mandates in the Midwest Independent System Operator (MISO) footprint. The RGOS served to deliver one plan to Appendix B of the MISO Transmission Expansion Plan (MTEP) 2010 Report, as well as a RGOS report of results and findings. The selected plan represented a least regrets portfolio solution based on detailed design development, sensitivity case analysis, and value metric application.
- After the completion of the RGOS, MISO formed a stakeholder task force for analysis on a portfolio of nineteen transmission projects to determine whether they will be granted MISO wide cost allocation status. These projects are spread across the MISO footprint and include a line in ND and connections toward eastern MISO. MISO will determine whether the line projects help meet public policy (renewable standards), exceed economic thresholds and strengthen grid robustness. Projects that are determined to be multi-valued were recommended to the MISO Board of Directors for

MVP cost allocation in December of 2011, which would qualify them for 100% MISO cost sharing. At the December Board meeting, the MISO Board approved the CapX2020 Brookings line as an MVP line.

- The federal American Recovery and Reinvestment Act (ARRA) has directed the development of interconnection-based transmission plans. Twenty-four planning authorities in the Eastern Interconnection are collaborating in a planning process known as the Eastern Interconnection Planning Collaborative (EIPC). This EIPC process will ultimately generate an interconnection-wide transmission plan for three scenarios chosen from seventy-two “generation futures.” Important dates include:
  - December 2011 – interim report containing the results of seventy-two generation futures as well as the three scenarios chosen for further analysis,
  - Early 2012 – development of transmission plan for three chosen scenarios, and
  - December 2012 – final report submitted to Department of Energy.

MRES has no other recommended measures for regional coordination beyond the activities described here in Section J.

## **SECTION K: Environmental Information**

Environmental sensitivity is a basic component of the MRES mission, and compliance with statutory and regulatory requirements applicable to generation resources and future transmission facilities is a priority. MRES staff actively monitors the myriad of continually changing federal, state and regional standards, environmental laws and regulations to identify pending and new requirements. To ensure comprehensive coverage of issues, we actively collaborate with several engineering and legal professional consultants, as well as state and national industry associations. In addition, MRES manages operations of its resources to ensure that the generating plants are in compliance with current and known future requirements.

In particular, existing requirements of, and proposed changes to, the Clean Air Act (CAA) are a focus of operational and regulatory compliance for the various generating resources upon which MRES relies for power supply. Each MRES resource unit is affected differently, based on the individual characteristics of the facility and its fuel source. Like others in the electric utility industry, MRES is concerned about the compressed time frame during which the EPA is scheduled to undertake and implement major changes to the CAA. We are closely following developments to assess whether additional control technology that might be required is commercially available, the necessary capital investment that might be associated with additional controls, and the potential consequences of operational changes required for compliance. The continuing uncertainty regarding the actual regulations applicable to the industry, as well as the available means to respond imposes a continuing level of uncertainty.

Following is a summary of several major environmental issues we are monitoring, including those relating to SO<sub>2</sub>, NO<sub>x</sub>/ozone, particulate matter (PM), and mercury.

## *SO<sub>2</sub>*

Laramie River Station (LRS)<sup>2</sup> and Exira Station are subject to the CAA's Acid Rain Program Phase II requirements.<sup>3</sup> The Watertown Power Plant and member owned generating units under contract with MRES are not covered by Phase II. Rules promulgated by the EPA pursuant to the 1990 Amendments allocated Phase II SO<sub>2</sub> allowances for 2010 and thereafter to specific Phase II units, including LRS. Basin Electric, which operates LRS, provides analyses of projected SO<sub>2</sub> emissions from LRS and each co-owner of the plant is responsible for obtaining SO<sub>2</sub> allowances in an amount corresponding to its pro rata share of LRS sufficient for the ongoing operation of LRS. Likewise, MRES conducts analyses of projected SO<sub>2</sub> emissions for Exira Station to identify the allowances necessary for operation of this natural gas peaking facility. MRES will hold sufficient allowances for the operation of LRS and Exira Station through 2016. In the event that the actual generation exceeds projections, it may be necessary to reduce SO<sub>2</sub> emissions or acquire additional allowances. MRES has an established procedure to evaluate the adequacy of its allowances at least annually for the following five-year period, and purchases allowances to meet its five-year projections.

In addition, we are monitoring the implementation and designation procedures for the new 1-hour SO<sub>2</sub> National Ambient Air Quality Standard. EPA is adopting a new method for determining nonattainment based on air quality modeling analysis, instead of only using monitoring data. In the event that the existing control technologies at LRS and Exira are determined to be inadequate to meet the new 1-hour standard, any necessary capital additions or operational changes will be evaluated by MRES for affected units.

## *NO<sub>x</sub> and PM*

The 1990 Amendments to the CAA imposed certain nitrogen oxide emission limitations to be met by most electric utility units in two phases. LRS and Exira Station are in compliance with the Phase II nitrogen oxide emissions limitations imposed by the 1990 Amendments.

On June 15, 2005, the EPA issued the Clean Air Visibility Rule, amending its 1999 regional haze rule, which had established timelines for states to improve visibility in national parks and wilderness areas throughout the United States. The amendments applied to the provisions of the regional haze rule that require emission controls known as Best Available Retrofit Technology, or BART, for industrial facilities emitting air pollutants that reduce visibility (NO<sub>x</sub> and PM). The amendments included guidelines for states to use in determining which facilities must install

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<sup>2</sup> Basin Electric Power Cooperative is responsible for the operation of the coal-fired Laramie River Station (LRS) on behalf of all the co-owners. However, MRES (for itself and as agent of Western Minnesota, which owns an interest in LRS) actively participates in management decisions through the Engineering & Operations Committee and the Management Committee. MRES, both in conjunction with the LRS co-owners and independently, also assesses the possible impact of potential regulatory changes on LRS.

<sup>3</sup> One of the main features of the 1990 Amendments to the Clean Air Act (the "1990 Amendments") are the emission reduction programs for sulfur dioxide (SO<sub>2</sub>) and oxides of nitrogen (NO<sub>x</sub>), and the potential impacts of mercury and other hazardous air pollutants emitted from electric utility power plants, particularly those fueled by coal. The acid rain SO<sub>2</sub> reduction program is in force and has been implemented in two phases. Phase I addressed specific generating units named in the 1990 Amendments. None of the MRES power supply resources was affected by Phase I. Phase II mandated that the total United States SO<sub>2</sub> emissions from electric utility plants be capped at 8.9 million tons.

controls and the type of controls the facilities must use. In 2006, the Wyoming Department of Environmental Quality (DEQ) advised that LRS is subject to BART. The Missouri Basin Power Project participants retained an engineering firm to perform the BART analysis required by EPA's regulations, and filed a timely BART application for LRS. DEQ issued the final LRS BART permit in January 2011, requiring installation of additional NO<sub>x</sub> controls.

On July 6, 2011, the EPA finalized the Cross-State Air Pollution Rule (CSAPR), which is intended to replace the Clean Air Interstate Rule (CAIR). CSAPR seeks to reduce SO<sub>2</sub> by 73 percent and NO<sub>x</sub> by 54 percent compared to 2005 levels by 2014. The rule would cap annual SO<sub>2</sub> emissions at 2.4 million tons and NO<sub>x</sub> emissions at 1.2 million tons, somewhat lower and one year earlier than CAIR. Like CAIR, Iowa is the only state in which MRES power supply resources will be affected by CSAPR.

In the state of Iowa, Western Minnesota has one generating resource, the natural gas-fired Exira Station.<sup>4</sup> The Environmental Protection Commission, the policy-making governing body of the Environmental Services Division of the Iowa Department of Natural Resources, adopted a State Implementation Plan ("SIP") for the cap-and-trade of NO<sub>x</sub> and Ozone Season NO<sub>x</sub> on May 15, 2006. The SIP went into effect July 12, 2006, and is to be implemented in two phases. In Phase I, beginning in 2009, units 1 and 2 of Exira Station were allocated a total of 76 allowances (in tons per year) for NO<sub>x</sub>. Also during Phase I, Exira units 1 and 2 were allocated 33 allowances (in tons per year) for Ozone Season NO<sub>x</sub>. Unit 3 is not eligible to receive such allocations. During Phase II of the SIP, beginning in 2015, units 1, 2, and 3 of Exira Station will each be allocated 19 allowances of NO<sub>x</sub>; and will each be allocated 8 allowances each for Ozone Season NO<sub>x</sub>. The allocation of NO<sub>x</sub> and Ozone Season NO<sub>x</sub> allowances at Exira Station under the current Iowa SIP is anticipated to be sufficient for commercial operation of all three units in both Phase I and Phase II.

MRES is also monitoring the EPA's proposed revisions to the standards for particulate matter (PM). A significant restriction in the current standards is anticipated, but until such time as those standards are finalized we cannot fully analyze the impact of actual regulatory changes regarding PM standards.

### *Mercury*

Following the invalidation of EPA's Clean Air Mercury Rule (CAMR), the EPA recently finalized Maximum Achievable Control Technology (MACT) standards for control of mercury emissions from new and existing power plants under Section 112 of the Clean Air Act. These requirements will apply to individual sources rather than as a cap-and-trade program. The major focus of the rulemaking is coal-fired units, and the only MRES facility that would be affected by the final mercury MACT is LRS. The standards will be phased in over three years, and states have the ability to give facilities a fourth year to comply. Currently, more than half of all coal-fired power plants already have pollution control technologies that are called for to meet the standards. While it appears that LRS would not need to make any significant additions to control mercury based on the final standards, until the final rules are fully reviewed and analyzed, the costs of implementing any additional control measures or operational restrictions that might be required cannot be estimated at this time.

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<sup>4</sup> MRES has exclusive rights to the output of Exira Station and operates the facility to supply power to its member municipalities located in Iowa, Minnesota, North Dakota, and South Dakota.

## *Greenhouse Gases*

The EPA initiatives regarding Greenhouse Gases (GHGs) are also being closely monitored by MRES, as well as its consultants and trade associations. The EPA GHG Mandatory Report Rule (MRR) was published in late 2009. This rule does not require controls or limits on emissions, but requires data collection beginning January 1, 2010. The first annual reports were due in September 2011. MRES has implemented operational procedures to record and compile the necessary information to ensure timely reporting of GHG emissions pursuant to the GHG MRR.

In addition to the MRR, MRES is closely following the development of the EPA's regulatory regime for control of CO<sub>2</sub> and GHGs. On May 13, 2010, the EPA issued a final rule for determining the applicability of the Prevention of Significant Deterioration (PSD) program to GHG emissions from major sources. The rule, known as the "Tailoring Rule," establishes criteria for identifying facilities required to obtain PSD permits and the emissions thresholds at which permitting and other regulatory requirements apply. The applicability threshold levels established by this rule include both a mass-based calculation and a metric known as the carbon dioxide equivalent, or CO<sub>2</sub>e, which incorporates the global warming potential for each of the six individual gases that comprise the collective GHG defined in EPA's endangerment finding. On November 17, 2010, EPA's PSD and Title V Permitting Guidance was published in the Federal Register.

MRES is also following closely the anticipated EPA proposal under Section 111 of the CAA of New Source Performance Standards for GHGs emitted from electric generating units. As of this writing, EPA has postponed the release of the proposed rule until January, 2012. However, the New Source Performance Standards (NSPS) for GHGs is unique among federal rulemakings because, unlike traditional rulemakings, this will take effect upon the *proposal* of the rule. Given that this is such a complicated rulemaking, and that there is no statutory or regulatory deadline for acting, MRES has joined others urging that EPA first issue an Advanced Notice of Proposed Rulemaking to provide an opportunity for public input prior to the release of the proposal. NSPS must be based on technologies that have been adequately demonstrated, and there is significant concern that acting prematurely (when only energy efficiency technologies meet this standard) will have dramatic and unintended consequences. While MRES is monitoring the NSPS developments, given the unique procedural posture of this rulemaking, it is not possible to assess the impact of the MRES power supply resources until EPA acts.

On January 2, 2011, sources that are subject to PSD and/or Title V permits due to their non-GHG emissions (such as fossil-fuel based electric generating facilities emitting NO<sub>x</sub>, SO<sub>2</sub> and other pollutants) will have to address GHG emissions in new permit applications or renewals. Construction or modification of major sources will become subject to PSD requirements for their GHG emissions if the construction or modification results in a net increase in the overall mass of GHG emissions exceeding 75,000 tons per year on a CO<sub>2</sub>e basis. New and modified major sources required to obtain a PSD permit would be required to conduct a BACT review for their GHG emissions. With respect to Title V requirements, as of January 2, 2011, sources that are required to have Title V permits for non-GHG pollutants will be required to address GHGs as part of their Title V permitting. The 75,000 tons per year CO<sub>2</sub>e applicability threshold does not apply, so when any source applies for, renews, or revises a Title V permit, then Clean Air Act requirements for monitoring, recordkeeping and reporting will be included. We will continue to

consult with our advisors, participate in discussions with the industry and EPA officials, and otherwise monitor closely this important issue.

Finally, state action on GHGs is also followed by MRES. Presently, Minnesota is the only state in which MRES members and/or power supply resources are located that imposes state-level GHG restrictions. We monitor legislative and regulatory developments associated with the Next Generation Energy Act, and ensure that the statutory limitations are incorporated into the MRES resource planning process.

## **SECTION L: Projected Demand for Service**

### ***Projected Demand.***

MRES forecasted peak demands and energy requirements are provided in Exhibit 4.

### ***Manner and Extent of Meeting Projected Demand.***

The primary activity MRES will strive to accomplish during the next ten years is to continue assisting members with implementing their Demand-Side Management (DSM) and conservation activities. For MRES members in Minnesota, this means continuing to pursue DSM measures in support of meeting the Minnesota Conservation Improvement Program (CIP) requirements.

Wind or other renewable resources will continue to be obtained to meet the Minnesota Renewable Energy Standard (RES). In addition, the MRES Board has set a goal of meeting any renewable energy objectives established in the other states with MRES members.

MRES identified the need for additional capacity in its 2011-2025 Integrated Resource Plan filed with the Minnesota Public Utilities Commission in July 2010. Recently, MRES has agreed to a long-term purchase power contract with WPPI Energy for approximately 33 MW of output from the Point Beach Nuclear Plant (Point Beach) located near Two Rivers, Wisconsin. The addition of the long-term contract for capacity and energy from Point Beach, and the development of the Red Rock Hydroelectric Project are consistent with MRES plans to implement the additional capacity by the time it is needed.

MRES will continue to investigate potential purchases of base-load capacity to the extent it can reduce costs and maintain the adequacy and reliability of power supply.

### ***Load Centers.***

MRES furnishes wholesale electricity to member communities in the states of Iowa, Minnesota, North Dakota, and South Dakota. Fifty-seven of the sixty-one members receive power under the long-term Power Sale Agreement (S-1 Agreement). All of the MRES S-1 members receive hydroelectric preference allocations from the Western Area Power Administration (WAPA) and have purchase power agreements with WAPA for power and energy from those allocations. Under the S-1 Agreement, MRES has the obligation to provide all the supplemental power needs of those members. One S-1 member, Marshall, Minnesota, also receives a portion of its power supply from another supplier until 2016.

MRES also supplies a portion of the needs for Atlantic, Iowa, and Hutchinson, Minnesota. Beginning April 1, 2012, the City of Pella, Iowa, will become the first all-requirements power supply member of MRES. Pella recently joined MRES as a member in June 2011.

***Fuel Sources and Transportation.***

Laramie River Station burns Powder River Basin sub-bituminous coal that is transported to the plant by rail.

Exira Station has three combustion turbines used for peaking purposes. These units use natural gas as their primary fuel and No. 2 fuel oil as a back-up fuel. Natural gas is transported to the plant by pipeline and fuel oil is transported by truck.

The Watertown Power Plant is an electric power generating facility utilizing a simple cycle combustion turbine that uses No. 2 fuel oil. The fuel oil is transported to the plant by truck.

**Exhibit 1**

U.S. Department of Energy  
Energy Information Administration Form EIA-767

(Forms supplied upon request.)

**Exhibit 2**

Projected Load Growth

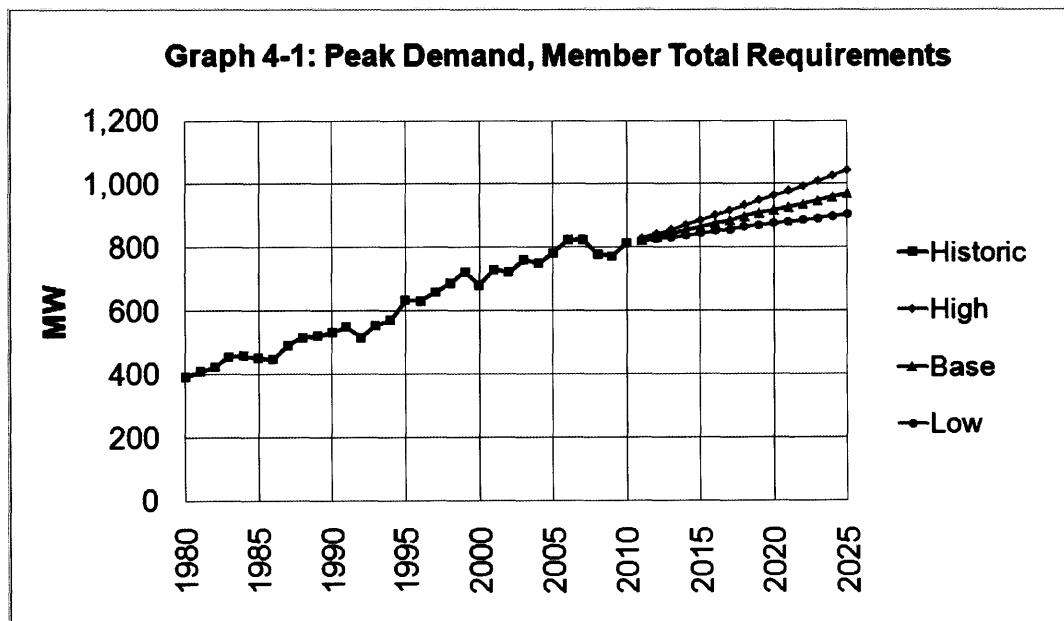
and

Forecast Methodology

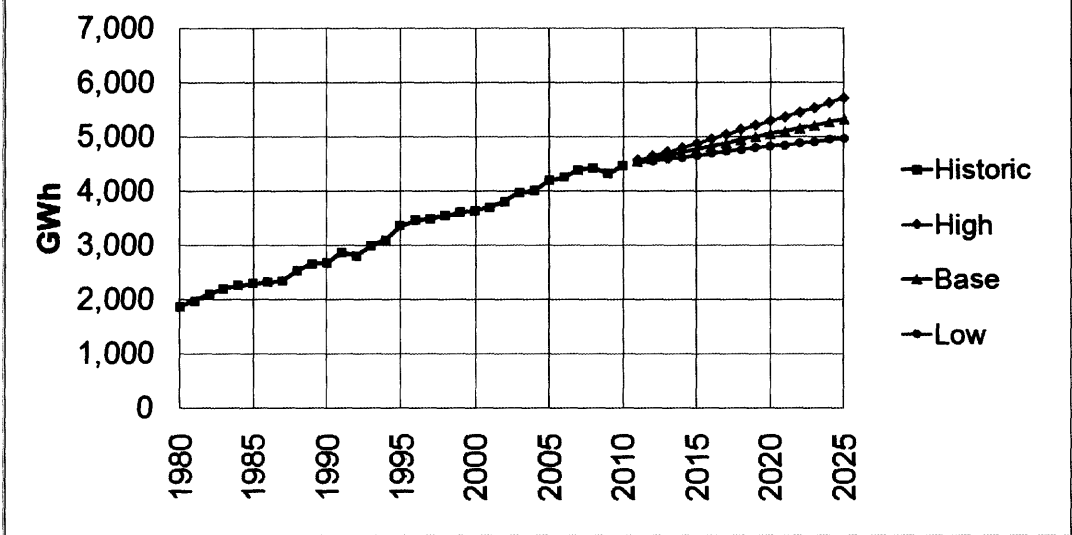
## Demand and Energy Forecasts

MRES created load forecasts for the total load of each of its S-1 members and Atlantic, Iowa. These forecasts were developed in 2010 and are of the expected loads assuming normal weather, before any Conservation Improvement Program (CIP) reduction efforts or any additional Demand-Side Management (DSM) programs. (Many members have some level of DSM already in place due to their previous efforts.) DSM and CIP effects on the loads are calculated in a later step of the planning process to enable load and DSM forecasting to be separately evaluated on an ongoing basis.

The total loads for the 57 S-1 members and Atlantic are expected to increase from a historic peak of 821.6 MW in the summer of 2007, to 971.3 MW in the summer of 2025. Below are graphs of the total historic and forecast load, in terms of annual peak and annual energy requirements. The 2011 peak demand was 913.4 MW.



**Graph 4-2: Annual Energy, Member Total Requirements**



STATE OF NORTH DAKOTA  
PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE FILING OF A  
TEN-YEAR PLAN BY MISSOURI RIVER  
ENERGY SERVICES


CASE NO. \_\_\_\_\_

**NOTICE OF FILING TEN-YEAR PLAN**

Missouri River Energy Services (MRES) hereby gives notice that on December 30, 2011, a Ten-Year Plan was filed with the North Dakota Public Service Commission in accordance with Section 49-22-04 of the North Dakota Century Code and Chapter 69-06-02 of the North Dakota Administrative Code.

Dated this 30th day of December, 2011.

MISSOURI RIVER ENERGY SERVICES

By  \_\_\_\_\_  
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