215 South Cascade Street
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Fergus Falls, Minnesota 56538-0496
218 739-8200
www.otpco.com (web site)

June 30, 2010

Mr. Darrell Nitschke
Director of Administration/Executive Secretary
North Dakota Public Service Commission
State Capitol
600 East Boulevard, Dept. 408
Bismarck, ND 58505-0408

RE: OTTER TAIL POWER COMPANY'S TEN-YEAR PLAN – JUNE 2010

Dear Mr. Nitschke:

Enclosed are an original and nine (9) copies of Otter Tail Power Company's North Dakota Ten-Year Plan in accordance with NDCC 49-22-04. Notice of the filing of this plan is given pursuant to Article 69-06-02-02 of the North Dakota Administrative Code to the state agencies and officers as designated in Article 69-06-01-05 of the Administrative Code. A copy of Otter Tail Power Company's Ten-Year Plan has also been filed with the County Auditor of any county in which any part of a preferred or alternate site or corridor is proposed to be located.

Should you have any questions, please feel free to call Kerry Kaseman at 218-739-8693 or kkaseman@otpco.com.

Very truly yours,

/s/ KERRY KASEMAN
Kerry Kaseman
Resource Planner

wao
Enclosures
By electronic filing and UPS overnight mail
c: Barnes County Auditor – Ed McGough
Cass County Auditor – Michael Montplaisir
Stutsman County Auditor – Noel Johnson

215 South Cascade Street
PO Box 496
Fergus Falls, Minnesota 56538-0496
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NOTICE OF FILING

June 30, 2010

RE: OTTER TAIL POWER COMPANY'S TEN-YEAR PLAN – JUNE 2010

In accordance with the rules and regulations of the North Dakota Public Service Commission governing the siting of energy conversion and transmission facilities pursuant to NDCC 49-22-04, Otter Tail Power Company hereby gives notice that on June 30, 2010, they filed their Ten-Year Plan with the North Dakota Public Service Commission. This Notice of Filing is being sent to the state agencies and officers designated in Article 69-06-01-05 of the North Dakota Administrative Code.

NORTH DAKOTA
TEN-YEAR PLAN

Report RP10-5
Resource Planning
June 2010

By: Kerry Kaseman

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INTRODUCTION

In accordance with the rules and regulations of the North Dakota Public Service Commission governing the siting of energy conversion and transmission facilities pursuant to Chapter 49-22 of the North Dakota Century Code, Otter Tail Power Company, hereby files this Ten-Year Plan.

Ten copies of this Ten-Year Plan are being filed with the Commission. Notices of the filing of this report have been given to those state agencies and officers designated in Article 69-06-01-05 of the Administrative Code

SECTION A: Existing Energy Conversion Facilities

1. Otter Tail Power Company, (Otter Tail) owns 35% of the 427 MW rated (Net Dependable Capacity) Coyote power generating station. Otter Tail is the operating agent and provides the filing of the appropriate Federal Forms. Other co-owners include Northern Municipal Power Agency (Minnkota Power Cooperative (MPC) acts as the agent for Northern Municipal Power Agency), Montana Dakota Utilities (MDU), and Northwestern Energy (NWE). The Coyote facility was commissioned for commercial operation May 1, 1981.

2. Otter Tail owns 100% of two combustion turbines located at Jamestown, North Dakota. These combustion turbines have a combined Net Dependable Capacity rating of 47.8 MW. These facilities were commissioned for commercial operation in 1976 and 1978.

3. Otter Tail is contracted to receive energy from a customer owned waste sunflower hull fired cogeneration facility in Enderlin, ND. No energy was received in 2009 from this facility.

4. Otter Tail purchases energy from six non-utility wind-powered generating facilities in North Dakota.
   - The first is a customer-owned two-unit facility that has a total capacity of 50 kW and delivered 6.52 MWh of energy to Otter Tail in 2009.
   - The second is a customer-owned facility that has a total capacity of 20 kW and delivered 1.341 MWh of energy to Otter Tail in 2009.
   - The third is a customer-owned facility that has a total capacity of 660 kW and delivered 506.68 MWh of energy to Otter Tail in 2009.
   - The fourth facility is the FPL Energy ND Wind II 21,000 kW wind farm owned by NextEra Energy, formerly FPL Energy, that delivered 63,538 MWh to Otter Tail in 2009.
   - Otter Tail purchases the output of 19,500 kW of wind turbines from Langdon Wind, LLC that delivered 75,479 MWh in 2009.
   - A sixth 100 kW facility is fully utilized by the customer, so no energy is delivered to Otter Tail Power.

5. Otter Tail purchases peaking capacity from two customer-owned diesel generators with a total nameplate capacity of 3.3 MW.

6. Otter Tail owns 40.5 MW of the Langdon Wind Energy Center located 6-12 miles south of Langdon, North Dakota. The portion owned by Otter Tail began commercial operation in January of 2008.

7. Otter Tail owns 48 MW of the Ashtabula Wind Energy Center located in Barnes County. The portion owned by Otter Tail began commercial operation in December 2008.

8. Otter Tail owns 49.5 MW of the Luverne Wind Energy Center located in Steele County. The portion owned by Otter Tail began commercial operation in August 2009.

9. No unit retirements of Otter Tail facilities in North Dakota are planned within the next ten years.

SECTION B: Energy Conversion Facilities Under Construction

None.

SECTION C: Proposed Energy Conversion Facilities On Which Construction Is Intended Within The Ensuing Five Years

The 2010 Otter Tail resource plan includes the addition of 50 MW of nameplate wind generation capacity by 2012 and up to 50 MW of nameplate natural gas-fired simple cycle combustion turbine capacity by 2015. Some or all of these resources may be located in North Dakota.

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

The 2010 Otter Tail resource plan includes the addition of 50 MW of nameplate wind generation capacity by 2012 and up to 250 MW of nameplate natural gas-fired simple cycle combustion turbine capacity by 2018. Some or all of these resources may be located in North Dakota.

SECTION E: Existing Transmission Facilities (Electric)

In-service dates for existing transmission facilities owned (or jointly owned) by Otter Tail and operated above 115 kV include:

Transmission Line	In-Service Date
Wahpeton – Fergus Falls 230 kV	1967
Hankinson – Wahpeton 230 kV	1967
Forman – Hankinson 230 kV	1967
Ellendale – Oakes – Forman 230 kV	1967
West Fargo (Sheyenne) – Audubon 230 kV	1969
Drayton – Grand Forks (Prairie) 230 kV	1970
Big Stone – Browns Valley – Hankinson 230 kV	1974
Center – Jamestown 345 kV	1980
Underwood – Harvey 230 kV	1986
Harvey – Balta – Rugby 230 kV	2002

No transmission facilities rated above 115 kV are scheduled for retirement within the next ten years.

We do not anticipate operating any of the transmission lines at 100% load factor. The nature of Otter Tail's native load and the operating characteristics of the transmission system make this impossible.

SECTION F: Existing Transmission Facilities (Pipeline)

None.

SECTION G: Proposed Transmission Facilities On Which Construction Is Intended Within The Ensuing Five Years

Due to the large number of generation interconnection projects proposed on the Otter Tail system, Otter Tail anticipates that upgrades to existing transmission lines in North Dakota may be required to reliably interconnect future projects. In consideration of the uncertainty of future projects in the region, it is possible that operating guides and/or special protection schemes could be implemented as a short-term interim solution in lieu of actual transmission upgrades until other future projects are confirmed and a regional transmission plan is formulated. This regional plan would be coordinated with the local utilities, the Midwest Independent System Operator (Midwest ISO), the Midwest Reliability Organization (MRO), and the Mid-Continent Area Power Pool (MAPP).

Transmission Projects Related to Reliability Concerns

Mapleton – Casselton – Buffalo 115 kV Line

A new 12-mile 115 kV transmission line from Mapleton to Casselton was energized in October of 2008 to provide service to a new ethanol plant near Casselton. Otter Tail is considering construction of a new 115 kV line from Casselton to Buffalo at some point in the future to further support the transmission system in this area. The exact timing of the Casselton to Buffalo 115 kV line is still being evaluated.

Jamestown Area Voltage Control

Previous studies conducted through the Midwest ISO and the Mid-Continent Area Power Pool have indicated the possibility of high voltage conditions in the Jamestown and Buffalo areas for outage of either the Jamestown to Buffalo 345 kV line or the Buffalo to Maple River (West Fargo) 345 kV line.

Likewise, recent generation interconnection studies performed through the Midwest ISO have indicated the possibility of low transient voltage concerns in the Jamestown and Buffalo areas. Since the Jamestown and Buffalo areas are prone to both high voltage and low voltage issues, it may be optimal for Otter Tail to install a reactive device with the capability to output reactive power in one situation, but be able to absorb reactive power in another situation.

Short-term mitigation of these voltage concerns (by means of switchable capacitor banks in and around Jamestown along with varying generator control voltages at Coyote) has been successful. Otter Tail continues to monitor these concerns while trying to formulate a permanent resolution. While there are several generation interconnection projects, transmission service requests and other future transmission expansions under study, Otter Tail is staying engaged in regional planning to determine the most efficient and effective method of resolving these voltage concerns.

CapX Transmission Initiative

Otter Tail is a participant in the CapX 2020 effort that is currently in the process of permitting four different transmission lines referred to as the CapX Group 1 projects. These projects include:

- Brookings County – Hampton 345 kV Line (approximately 200 miles)
- Fargo – St. Cloud – Monticello 345 kV Line (approximately 250 miles)
- Hampton – Rochester – LaCrosse 345 kV line (approximately 150 miles)
- Bemidji – Grand Rapids 230 kV Line (approximately 70 miles)

A portion of one of the initial projects, a proposed 345 kV transmission line from the Fargo, ND area to the St. Cloud/Monticello, MN area is located in North Dakota and is shown in Figure 1. Work has begun on the permitting of this project. The project participants have received a Certificate of Need for the Minnesota portion of the project. The project participants are working through the process to obtain a Corridor Certificate and a Route Permit for the North Dakota portion of the project. The current schedule for this project plans to build this new line in sections starting from the south (Monticello, MN) and working towards the northwest (West Fargo, ND) with the entire line expected to be in-service sometime between 2012 and 2015.

Figure 2: Proposed 345 kV line from Fargo, ND area to St. Cloud/Monticello Area

<u>Transmission Projects Related to Generator Interconnection Requests</u>

Jamestown Area 115 kV Line Upgrades

Otter Tail is expecting that approximately 12 miles of 115 kV line between the Jamestown Peaking Plant substation and the Jamestown 345 kV substation will need to be upgraded as a result of the generator addition at Spiritwood. The upgrade of the 115 kV line will need to

be coordinated through the Large Generator Interconnection Procedures at MISO. It is possible that interim operating guides and/or special protection schemes could be implemented to allow short-term operation of the plant prior to the physical line upgrade being completed.

Sheyenne - Audubon 230 kV Line

Transmission studies for the wind farms connecting to the Maple River Substation have identified potential line loading issues along the Sheyenne – Audubon 230 kV line. Current results of the transmission studies are indicating structure improvements are necessary along the Sheyenne - Audubon 230 kV line to allow increased conductor-to-ground clearances to achieve a higher line capacity. Otter Tail expects that these structure improvements will be completed in the 2013-2014 timeframe.

Otter Tail continues to see a lot of activity within North Dakota related to increased interests in new wind generation development, large load expansions related to the ag-processing industry and energy transport industry. As these projects are further developed, it is possible that additional transmission will be required. Further study analysis will be required to determine the optimum transmission plan and will be coordinated through local and regional transmission planning processes in place at the Midwest ISO, MRO, and MAPP.

SECTION H: Proposed Transmission Facilities On Which Construction Is Intended Within The Ensuing Five Years (Pipeline)

None.

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

As the transmission system approaches its full capability, and with the numerous proposed generation projects within North Dakota, it is inevitable that additional transmission, as well as upgrades to the existing system, will be required to meet the needs of the system. Otter Tail continues to participate in transmission studies looking at the adequacy of the transmission system throughout North Dakota.

SECTION J: Regional Coordination

Otter Tail conducts transmission planning in a coordinated environment, involving neighboring utilities, load serving entities, state regulatory commissions and members of the public to collaborate in the planning process.

There are several different transmission initiatives underway within the region that are investigating the feasibility of expanding the capability of the transmission grid in order to integrate additional resources. One of these efforts includes the Regional Generation Outlet Study (RGOS) being performed by the Midwest ISO. Another such effort is the Upper Midwest Transmission Development Initiative (UMTDI), which is working with various stakeholders in the development of feasible transmission plans within the region. Otter Tail continues to

actively participate in these efforts to ensure that a reliable and economic transmission system is built across the region in a coordinated manner.

Regional Coordination through the Midwest ISO Process

As a transmission-owning member of the Midwest ISO, Otter Tail participates in various transmission planning efforts, the most significant of which is the annual Midwest ISO Transmission Expansion Planning ("MTEP") process. The MTEP process involves a variety of planning analyses to determine the performance of the transmission system for a wide variety of conditions. Through the MTEP process, the Midwest ISO, with input from various stakeholders, evaluates the system for both reliability and economic needs.

Local planning of the Otter Tail facilities, less than 100 kV, is primarily coordinated on a subregional level. Otter Tail's locally planned projects are then reviewed by the Midwest ISO and may become part of the MTEP. Developing local transmission plans at a subregional level and rolling them up to the Midwest ISO provides for regional coordination of local transmission plans, which leads to transmission projects being built in a coordinated manner to address the transmission needs of the larger region. This coordination for identifying new transmission projects also augments the larger region by providing for a transmission plan that maximizes the benefits of the new projects and in many cases reduces the number of new transmission projects that are needed than if the transmission planning was done solely on an individual basis. Regional coordination of local transmission plans also results in study efficiencies by keeping a broader group of utilities, states, and stakeholders informed through the transmission planning process.

During the course of the MTEP process, the Midwest ISO seeks opportunities to coordinate or consolidate, where possible, individually defined transmission projects into more comprehensive cost-effective developments. The Midwest ISO coordinates with Transmission Owners, and considers the input from various stakeholder groups (through the Subregional Planning Meetings, Planning Subcommittee, and Planning Advisory Committee) to develop expansion plans to meet the needs of the transmission system. This multi-party collaborative process allows for all projects with regional and inter-regional impacts to be analyzed for their combined effects on the transmission system. Moreover, this collaborative process is designed to ensure the most efficient and cost-effective transmission expansion plan is developed, while giving consideration to the inputs from all stakeholders.

Additionally, subregional, state, and non-Midwest ISO coordination is necessary because the Otter Tail transmission system is highly interconnected with neighboring non-Midwest ISO/Mid-Continent Area Power Pool ("MAPP") transmission owners. The Otter Tail transmission system is nearly the farthest, most western border of the Midwest ISO footprint; therefore, it is interconnected with several transmission-owning utilities that are not members of the Midwest ISO, but instead remain members of MAPP.

Regional Coordination through the MAPP Process

Otter Tail continues to coordinate with the non-MISO parties in our region that are still a part of the MAPP Regional Transmission Committee (RTC).

We accomplish this coordination through participation in several working groups and committees. Some of these groups and committees include:

- Northern MAPP Subregional Planning Group (NM SPG)
- Missouri Basin Subregional Planning Group (MB SPG)
- Northern MAPP Operating and Review Working Group (NMORWG)
- Transmission Reliability Assessment Working Group (TRAWG)

The NM SPG and MB SPG typically meet every other month to discuss members' planned projects (including the identification of member-system enhancements that could relieve congestion or integrate new resources), share study results, and establish ad-hoc study groups for regional and local concerns at all voltage levels. The SPGs provide forums for the coordination of individual utility transmission plans, coordination with other SPGs, and coordination with neighboring non-MAPP utility systems. SPG meetings are open to all interested parties who have a signed Non-Disclosure Agreement with MAPP.

Otter Tail is also actively engaged in NMORWG. This working group performs seasonal operating studies for the Northern MAPP region and defines specific operating guides relevant to different operating conditions. The NMORWG meetings provide a forum for exchanging information with neighboring transmission owners regarding projects that are being built and operated in the near-term operating horizon.

The TRAWG performs transmission system assessments for MAPP members that are required by the reliability standards defined by the North American Electric Reliability Corporation (NERC). Given that the Otter Tail system is highly integrated with MAPP members, it is required that we stay actively engaged in these studies in order to coordinate these system assessments with our neighboring transmission owners. This coordination also eliminates any duplication that may occur if each transmission owner would be performing their own assessments individually.

Regional Coordination through the Local Process

Otter Tail also participates in the CapX 2020 (Capacity Expansion by 2020) effort, which is a joint initiative of transmission-owning electric utilities in Minnesota and the surrounding region created on the basis of expanding the electric transmission grid to ensure electric reliability for several years into the future. The CapX 2020 utilities (including cooperatives, municipal utilities and investor-owned utilities) collaboratively assess the current transmission system and plan for the necessary future transmission infrastructure investments. This collaborative process and the planning studies performed as part of this effort are coordinated with MAPP and the Midwest ISO.

Otter Tail has Integrated Transmission Agreements (ITA) with Central Power Electric Cooperative, Missouri River Energy Services, Minnkota Power Cooperative, and Great River Energy. These agreements provide for joint use of transmission facilities in common areas of service and require that the utilities jointly plan and coordinate additional facilities required for the common service area. In addition, Otter Tail has agreements for joint use of transmission and interconnection with Xcel Energy, East River Electric Cooperative, Montana-Dakota

Utilities, Manitoba Hydro, Northwestern Energy, and Western Area Power Administration. These agreements were all precipitated through joint studies and coordination of facilities required to provide high reliability of service at the minimum cost. Facilities proposed and committed through this local process become part of the MTEP and are also coordinated with the MAPP.

As discussed above, Otter Tail coordinates extensively with its neighboring utilities to share system plans and identify system enhancements through the Midwest ISO, the MAPP, and through local participation in coordinated transmission planning (such as CapX 2020, and the ITAs). Otter Tail's participation in the Midwest ISO study process provides coordinated planning for the entire 15-state Midwest ISO footprint while participation in various working groups and committees within MAPP provides for coordinated planning within the historic 7-state MAPP region, which includes both utilities that are Midwest ISO members and utilities that are not Midwest ISO members.

SECTION K: Environmental Information

Otter Tail employees are involved with other groups in a variety of organizations to keep informed on various environmental issues. Edison Electric Institute (EEI), the Utility Air Regulatory Group, and the Lignite Energy Council all provide information exchange on environmental issues. On an individual basis, employees participate in Energy and Environment Research Center (EERC) conferences, Air and Waste Management Conferences, and MPCA task forces and other informational meetings. Otter Tail, along with other government and industrial entities, funds various types of research projects such as the Energy and Environment Research Center's Coal-Ash Research Resources Consortium (CARRC) and the Center for Air Toxic Metals (CATM). The CARRC was established to evaluate potential beneficial uses of coal combustion by-products. CATM is devoted to the study of the emission, control, and fate of hazardous air pollutants with primary emphasis on mercury.

Otter Tail Power generating plants are subject to stringent federal and state standards and regulations regarding, among other things, air, water and solid waste pollution. Otter Tail estimates that operation and maintenance expenditures related to environmental items at Coyote Station in 2009 were $3,522,052. In addition, there was $917,666 in capital expenditures relating to environmental items at Coyote Station in 2009.

Otter Tail Power has complied in the past and will continue to comply with all requirements of the Public Service Commission in siting, operating and maintaining all proposed energy conversion and transmission facilities located in North Dakota.

Air Quality

Pursuant to the Federal Clean Air Act (the Act), the United States Environmental Protection Agency (EPA) has promulgated national primary and secondary standards for air pollutants. The Coyote Station has sulfur dioxide removal equipment. The removal equipment, referred to as a dry scrubber, consists of a spray dryer, followed by a fabric filter. The Coyote Station is currently operating within all presently applicable federal and state air quality and emission standards.

On December 19, 1996, the EPA adopted nitrogen oxide emissions regulations that are applicable to cyclone-fired boilers such as those used at the Coyote Station. The regulations required that the cyclone boilers meet the emission standards beginning on January 1, 2000 and Coyote Station meets those standards. In February of 2008, Basin Electric Power Cooperative, Minnkota Power Cooperative, and Otter Tail completed a Memorandum of Understanding forming the North Dakota Lignite-Fired Cyclone Boiler NOx Reduction Group. The purpose of the group is to evaluate technologies for NOx reduction on North Dakota lignite-fired cyclone boilers that have greater NOx removal efficiencies than currently available technologies.

On February 23, 2010, the North Dakota Department of Health issued a Best Available Retrofit Technology Permit to Construct to Coyote Station. The permit was issued under the North Dakota Regional Haze Implementation Plan. The permit requires installation of NOx control technology that will reduce the discharge of NOx emissions to levels below 0.50 lb/mmBtu as measured by a 12-month rolling average by July 1, 2018. Compliance with the limit must be met beginning on July 1, 2019.

The Act contains a list of hazardous air pollutants, which includes certain substances believed to be emitted by Otter Tail plants. The Act calls for EPA studies of the effects of emissions of the listed pollutants by electric utility steam generating plants. The EPA has completed the studies and sent reports to Congress. On December 14, 2000, the EPA announced that it affirmatively decided to regulate mercury emissions from electric generating units. The EPA published final mercury emission rules in the May 18, 2005 Federal Register. On October 28, 2005, EPA announced a reconsideration of portions of the final rules. EPA reaffirmed most relevant portions of the rules in their May 31, 2006, final action on the reconsideration. On February 8, 2008, the United States Court of Appeals for the District of Columbia granted petitions for review of the EPA mercury rules that would have allowed the EPA to regulate mercury emissions based on a cap and trade approach. The Court issued a mandate vacating the rules on March 14, 2008. The EPA appealed the court's decision to the U.S. Supreme Court, but withdrew its appeal in early 2009. The Supreme Court denied the appeals of other parties to the litigation on February 23, 2009. The EPA rulemaking is slated to proceed under the maximum achievable control technologies (MACT) provision of the Act section 112(d) for existing units and section 112(g) case-by-case MACT provisions for affected new units. EPA and petitioners have agreed to a schedule where EPA would adopt final MACT rules that regulate hazardous air pollutants, including mercury, by November 16, 2011. Otter Tail anticipates that the MACT standard may require installation of control technology at its power plants, but it cannot determine what will ultimately be required to meet the EPA's final standard. Given the potential for legal challenges and regulatory uncertainties associated with EPA’s revised rulemaking, it is not possible to assess to what extent the EPA rulemaking will impact Coyote Station.

The two combustion turbines located at Jamestown are not impacted by the Act’s emission reduction standards.

Water Quality

The Federal Water Pollution Control Act Amendments of 1972, and amendments thereto, provide for, among other things, the imposition of effluent limitations to regulate discharges of

pollutants, including thermal discharges, into the waters of the United States. The EPA has established effluent guidelines for the steam electric power generating industry. Discharges must also comply with state water quality standards. Water discharge permits for the Coyote Station were renewed on April 1, 2008 for a five-year term.

Solid Waste

The EPA has promulgated various solid and hazardous waste regulations and guidelines. These provide for the comprehensive control of various solid and hazardous wastes from generation to final disposal. The North Dakota Department of Health issued Coyote Station permits for disposal of ash and other solid wastes.

On May 4, 2010, EPA released two alternative proposals to regulate disposal of coal combustion residuals (CCRs) which include fly ash, bottom ash, slag, and Flue Gas Desulfurization materials.

The Bevill Amendment to the Resource Conservation and Recovery Act (RCRA) excludes CCRs from regulation as hazardous wasted under Subtitle C of the Act. However, EPA was directed to study the impacts of CCRs and make a determination of whether or not regulation of CCRs under Subtitle C was necessary. The EPA determined that regulation of CCRs was not warranted in 1993. In 2000, EPA concluded that significant improvement had been made in waste management practices as a result of state requirements, but gaps still remained. At that time, EPA decided to retain the Bevill exemption and to establish minimum national standards for CCR management under Subtitle D of RCRA, which would be managed by the states. The Subtitle D standards were never issued as part of the 2000 determination.

EPA began its re-review of CCR regulation following the December 2008 rupture of a Tennessee Valley Authority surface impoundment located near Kingston, Texas. Public statements by the EPA Administrator and other EPA officials signaled that EPA intended to regulate CCRs as hazardous waste under Subtitle C. While, it is clear from their May 4, 2010 proposal that they would prefer to regulate CCR under Subtitle C, they offered two proposals for public comment, one under Subtitle C and the other under Subtitle D. Comments on the proposals are due 90 days following their publication in the *Federal Register*.

SECTION L: Projected Demand For Service

Historical Growth and Long Range Forecast

Otter Tail had an unmanaged winter peak of 818 MW on January 8, 2010 for the hour ending at 12 p.m. The ten-year historical growth of Otter Tail's unmanaged annual peak demand is shown in Table 1. For the purposes of Table 1, annual data reflects the Midwest ISO planning year that begins in May of the listed year and extends through April of the following year.

Table 1: Historical Unmanaged Annual Peak Demands (MW)

Year	Peak	Annual Growth %	Cumulative Growth %
2000	672	0.0	0.0
2001	642	-4.5	-4.5
2002	689	7.3	2.8
2003	717	4.1	6.9
2004	712	-0.7	6.2
2005	690	-3.1	3.1
2006	727	5.4	8.5
2007	740	1.8	10.3
2008	810	9.5	19.8
2009	818	1.0	20.8

A long-range forecast was made using an econometric model developed with the assistance of Christensen Associates of Madison, Wisconsin. This model is designed to incorporate a number of different assumptions about variables such as weather, economic growth, and demographics.

Three scenarios were used in this forecast: the Base Scenario, the Upper Scenario, and the Lower Scenario. The Base Scenario represents the best-fit econometric forecast of the statistically significant variables impacting customer load. The Upper and Lower Scenarios are calculated using confidence intervals that effectively describe the uncertainty around the forecast values.

Otter Tail's projected unmanaged winter peak demand is presented in Table 2 and Otter Tail's unmanaged summer peak demand is presented in Table 3. In Table 2, winter data reflects the Midwest ISO planning year in which the winter season begins in November of the listed year and extends through April of the following year. In Table 3, summer begins in May and ends in October of the listed year.

Table 2: Forecasted Unmanaged Winter Peak Demands (MW)

Year	Lower	Base	Upper
2010	734	776	817
2011	745	787	829
2012	756	799	841
2013	774	817	860
2014	795	839	883
2015	815	860	904
2016	839	885	930
2017	869	915	962
2018	880	928	975
2019	892	940	988

Table 3: Forecasted Unmanaged Summer Peak Demands (MW)

Year	Lower	Base	Upper
2010	655	697	739
2011	666	708	750
2012	678	720	762
2013	689	732	775
2014	707	750	794
2015	729	773	817
2016	748	793	838
2017	773	818	864
2018	803	849	896
2019	814	862	909

It is important to note that the data provided in Tables 2 and 3 do not reflect planned or committed energy efficiency efforts in Minnesota and South Dakota and that some demand savings would be realized from such efforts. Otter Tail anticipates the demand savings could be as much as 39 MW by 2020 based on plans in Minnesota and South Dakota. North Dakota has not approved an energy efficiency plan for implementation.

Demand Response Capability

Otter Tail has two Demand Resources registered under Module E with the Midwest ISO. Both resources are load modifying resources (LMR) that are netted from the demand forecast prior to calculation of the reserve obligation. These resources are obligated to provide sustained load reduction for up to 4 hours at a time and be available five times in the summer to the Midwest ISO in the event of a declared reliability emergency. This obligation does not preclude the Company from relying on these resources to control for capacity events or economic reasons outside of a Midwest ISO emergency event.

Direct Load Control – The Radio Load Management System

The first Demand Resource, "Direct Load Control," represents the Company's extensive radio load management system that is used to control customer load during economic or capacity events. This resource was accredited at 85 MW in December through February, 25 MW in the shoulder months of March, April, October, and November, and 5 MW in the summer months of May through September. Otter Tail has approximately 129,500 customers and approximately 41,000 of those customers have some type of load control. The level of control that is available can vary with temperature, customer behavior, and load control responsiveness. For example, more load control is available during extremely cold temperatures in the winter than during moderate temperatures.

Winter season demand response loads are in several categories and can reach as high as 130 MW. These manageable loads include water heaters, thermal storage, residential demand controllers, commercial time of use rates, small dual fuel heating systems, and

large dual fuel (industrial and bulk interruptible loads). The radio load management system also has the capability of interrupting as much as 20 MW of summer peak load in the months of June through September. These summer loads consists primarily of water heaters, irrigation, the large dual fuel industrials and residential air conditioning. Otter Tail continues to add customers to the newest program that allows cycling control of residential central air conditioning (15 minutes on, 15 minutes off).

Although 2009 measurement data showed the load management system was capable of achieving higher levels than the level accredited, those higher levels related to control levels during a minimum number of hours (less than 4) and were impacted by weather and load diversity. Additional testing and analysis needs to be conducted before Otter Tail would be confident accrediting our demand response at the higher levels. The newness of the Module E accreditation, the measurement and verification requirements for continued accreditation, and the risk of potential penalties were also significant factors in the lower accreditation level registered by the Company.

Over a 4 year period from 2003 to the summer of 2007, Otter Tail replaced a significant portion of our load management equipment. This included over 40,000 radio receivers on customer's premises. Software and hardware technologies were implemented to allow the use of the Company's voice radio communication system for load management signal transmissions.

The update of the radio load management system was necessary since the previous technology was over 20 years old and replacement components were becoming difficult to find. Otter Tail had also experienced a continued reduction, due to failed radio receivers, in the overall effectiveness of the system leading to a reduction in the total megawatts of controlled load. The replacement of the load management system has improved the amount of controllable load and provided greater confidence in the system.

Firm Service Level – Customer Contracts

The second Demand Resource registered with MISO is a "Firm Service Level" resource that represents Otter Tail's contract with a large industrial customer to shed load to a firm service level in the event of a capacity event. This resource was certified at 20 MW for each month of the 2010 planning year. Unlike the "Direct Load Control" resource that reduces load when called upon by our load management system, this resource must demonstrate that it did not exceed the registered firm service level during a capacity event.

Table 4 presents the Demand Resource capability based on the current accreditations. As shown in the data, the Company's current resource plan adds 5 MW of summer capability and 10 MW of winter capability every five years. Of particular benefit to the Company is the smoothing of the reserve obligation that Demand Resources provide from winter to summer.

Table 4: Load Management Capability Forecast

Year	Summer Season (May-October) Base Forecast Scenario (MW)	Winter Season (November-April) Base Forecast Scenario (MW)
2010	25	105
2011	25	105
2012	25	105
2013	25	105
2014	25	105
2015	30	115
2016	30	115
2017	30	115
2018	30	115
2019	30	115
2020	35	125

As a company, Otter Tail will continue to use a combination of Demand Resources, energy efficiency, and purchase agreements with other utilities to help meet future deficits. Otter Tail also continues to study and assess the potential for future additions to its generation.

Otter Tail has purchased summer and winter season peaking capacity for the year 2010. A capacity and energy purchase from Manitoba Hydro Electrical Board expired April 30, 2010. A comparable contract for summer and winter capacity and energy from Minnesota Power will extend from May 1, 2010 through May 31, 2013. The Company has capacity contracts with Wisconsin Electric Power Company totaling 35 MW from June 1, 2010 through May 31, 2011, and 50 MW from June 1, 2011 through May 31, 2013. Otter Tail has also purchased 50 MW of capacity from Great River Energy from December 1, 2010 through December 31, 2014. Further detailed information may be obtained from Otter Tail's Resource Plan documents that are filed with the Minnesota Public Utilities Commission. Copies of the Company's Resource Plans are provided to the North Dakota Public Service Commission. The Company's next Resource Plan was filed June 25, 2010.

Operational Improvements to Generation Facilities

Otter Tail continues to explore operating improvements at its generating facilities to increase their efficiency and to lower the cost of production.

Big Stone Plant:

There were three significant projects completed in 2007 that contributed to improved performance in 2008 and will continue pay dividends in the future. A generator stator rewind has significantly reduced the risk of a major failure. The replacement of the Advanced Hydrid Particulate Collector (AHPC) was successful and the new baghouse has operated as designed. A condenser/circulating water pump upgrade has provided significant

improvement in summer NPHR, eliminated summer load restrictions and eliminated the on-going corrosion problem with condenser tubes.

Coyote Station:

The Coyote Station is a sister unit to Big Stone Plant, but six years newer. In order to correct design deficiencies with the existing low-pressure rotor, a new rotor was installed in 2003. The new rotor improves overall plant efficiency by approximately 2%. Coyote also completed a high-pressure/intermediate pressure rotor replacement in 2009 that resulted in about a 2% increase in efficiency. The Coyote Station approved outlet rating is only 427 MW, due to transmission limitations.

Jamestown, ND, Lake Preston, SD, and Solway, MN Peaking Plants:

The units continue to be operated during load peaking conditions and to provide transmission stability during emergency conditions and maintenance situations. They have also seen additional run time for reliability reasons in the Midwest ISO market. Otter Tail continues to review ways to improve the unit's efficiency. Improvements at Jamestown and Lake Preston include an upgrade of control systems and the installation of an inlet fogging system to increase summer ratings in 2001.

Otter Tail added a GE LM6000 combustion turbine (CT) unit at Solway, MN in the spring of 2003. The unit includes inlet chilling to improve the summer rating and efficiency, as well as water injection for NOX control and increased output. Interruptible natural gas is the primary fuel with fuel oil as the back-up fuel supply. The combustion turbine also includes a clutch to allow synchronous condensing service to support the transmission system. The LM6000 is an aero-derivative machine, powered by a Boeing 747 engine, and is one of the most fuel-efficient simple cycle turbines in the world.

Hoot Lake Plant:

Hoot Lake Plant has also taken steps to lower its operating costs. Both Units #2 and #3 continue to maintain high levels of rating capability and performance. Unit #1, a 7.5 MW nameplate unit built in 1948, was retired in 2005.

Description of Generation Facilities

Otter Tail owns or is a co-owner of the following generating facilities:

Coyote Station is a coal fired 427 MW (Net Dependable Capacity) facility located near Beulah, North Dakota. Coyote Station is a mine-mouth fed facility that uses ND lignite for its fuel source. Otter Tail is a co-owner with Montana Dakota Utilities (MDU), Northern Municipal Power Agency (Minnkota Power Cooperative (MPC) acts as the agent for Northern Municipal Power Agency), and Northwestern Energy (NWE). Otter Tail has a 35% ownership share in Coyote Station and is the operating agent of Coyote Station. The net generation from Coyote Station in 2009 was 2,498,608 MWh.

Big Stone Plant (BSP) is a coal fired 475 MW (Net Dependable Capacity) facility located near Milbank, South Dakota. In association with using sub-bituminous coal for its fuel source, Big Stone Plant has also burned a limited amount of alternative fuels such as tire-derived-fuel, refuse-derived-fuel, and agricultural biomass. BSP has burned alternative fuels since 1989. Deliveries of alternative fuels peaked in the mid to late 90's. After a thorough review of the BSP's use of alternative fuels, the plant decided to end the program at the end of 2009.

Several factors led BSP to this decision. Capital repairs were required for the handling facility, primarily new walking floors. Supplies of the various fuels have dwindled, with BSP being the outlet of last resort in many cases. Maintenance costs for routine upkeep remain consistent, even with a lower number of tons moving through the facility. Tire derived fuel continues to create problems in the fuel conditioners, resulting in higher than expected maintenance costs. Finally, new EPA requirements for reporting of emissions from biofuels make it nearly impossible to burn these fuels and comply with the reporting needs. The plant intends to mothball the handling system. If other opportunities present themselves in the future, they will be evaluated.

Otter Tail is a co-owner with MDU, MPC, and NWE. Otter Tail has a 53.9% ownership share in Big Stone and is also the operator of the BSP. The net generation from BSP in 2009 was 3,101,444 MWh.

Hoot Lake Plant is a coal-fired facility consisting of 2 generators with a combined capacity of 140.5 MW (Net Dependable Capacity) located in Fergus Falls, Minnesota. Hoot Lake Plant burns sub-bituminous coal as its fuel supply and receives rail shipment from Burlington Northern. Otter Tail is the sole owner/operator of the Hoot Lake facility. Net generation for Hoot Lake Plant in 2009 was 598,692MWh.

Otter Tail owns and operates 6 run-of-river hydro units in Minnesota. The total capacity of the six units is about 4 MW. The six hydro units produced net generation of 24,095 MWh in 2009.

Otter Tail owns two CT units in Jamestown, ND and a single CT unit in Lake Preston, SD. The Net Dependable Capacity rating for Jamestown unit #1 and unit #2 are 23.8 MW and 24 MW, respectively. The Net Dependable Capacity rating for the Lake Preston unit is 21.8 MW. All three units burn #2 fuel oil that is delivered by truck and stored in above ground storage tanks. Net generation for the three combustion turbines was 1,470 MWh in 2009.

Otter Tail also has a 2,000 kW standby diesel generator located at its System Operations Control Center in Fergus Falls, MN. The generator had net generation of about 24 MWh in 2009.

Otter Tail owns a 42.65 MW (Net Dependable Capacity) LM6000 CT unit and a 1.250 MW diesel unit at Solway, MN. Net generation for Solway in 2009 was 31,523 MWh.

Otter Tail owns 40.5 MW of the Langdon Wind Energy Center located 6-12 miles south of Langdon, North Dakota. The portion owned by Otter Tail began commercial operation in January of 2008 and had net generation of about 154,387 MWh in 2009.

Otter Tail owns 48 MW of the Ashtabula Wind Energy Center located in Barnes County, North Dakota. The portion owned by Otter Tail began commercial operation during October 2008 and had net generation of about 155,965 MWH in 2009.

Otter Tail owns 49.5 MW of the Luverne Wind Farm located in Steele County, North Dakota. The portion owned by Otter Tail began commercial operation during August 2009 and had net generation of 56,585 MWH in 2009.