



# Central Power Electric Cooperative, Inc.

525 20th Avenue Southwest • Minot, North Dakota 58701  
Phone 701/852-4407 • Headquarters Fax 701/852-4401 • Operations & Engineering Fax 701/852-4402  
www.centralpwr.com

RECEIVED

JUN 11 2008

PUBLIC SERVICE COMMISSION

June 10, 2008

Ms. Illona A. Jeffcoat-Sacco, Director  
Public Utilities Division  
Public Service Commission  
600 East Boulevard Avenue  
Department 408  
Bismarck, ND 58505-0480

Dear Director Jeffcoat-Sacco:

Please find ten copies of Central Power Electric Cooperative's Ten Year Plan as required for Public Service Commission review. We have also enclosed four copies of our most recent system map. Central Power's Ten Year Plan references our 1995 Long Range Engineering Plan which was submitted to the Commission in 1995 and our 2007 Load Forecast which was submitted in 2007.

Feel free to contact me at the number above or on my cell phone at 701-721-1421 with any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read 'Mark Sherman'.

Mark Sherman, P.E.  
Manager of Operations & Engineering

Enclosures

1 **PU-08-317** Filed: 6/11/2008 Pages: 9  
**2008 Ten Year Plan**

Central Power Electric Cooperative, Inc.

**CENTRAL POWER ELECTRIC COOPERATIVE, INC.**

***TEN YEAR PLAN***

***2008***

**SUBMITTED TO THE  
NORTH DAKOTA  
PUBLIC SERVICE COMMISSION**

**Central Power Electric Cooperative, Inc.  
525 20<sup>th</sup> Avenue Southwest  
Minot, ND 58701  
(701) 852-4407**

## INTRODUCTION

Central Power Electric Cooperative respectfully submits this ten-year plan to the North Dakota Public Service Commission in accordance with the format guidelines issued in November, 1979, and as required by Section 49-22-04 of the North Dakota Century Code.

Central Power is a wholesale transmission cooperative that serves all of the power supply needs of five North Dakota rural electric distribution cooperatives and part of the power supply needs of a sixth distribution cooperative. Central Power has a contract with the Western Area Power Administration (WAPA) for approximately one-fifth of Central's power supply and an all requirements contract with Basin Electric Power Cooperative for all power supply requirements over and above the power supplied by WAPA.

This ten-year plan is supplemented by a copy of Central Power's Long Range Transmission Study and a copy of Central Power's 2007 Load Forecast. The 1995 Long Range Transmission Study was supplied to the North Dakota Public Service Commission in 1995 and the 2007 Load Forecast was supplied in 2007.

The Long Range Transmission Study was completed for Central Power by the engineering firm of Electrical Consultants in 1995, and provides a twenty year forecast through 2015 of transmission system loads and facility improvements needed to supply those loads. The Load Forecast was completed for Central Power by Basin Electric Power Cooperative in 2007, and provides a forecast of Central Power's electrical requirements for the period 2006 to 2021. Together, these documents serve as key elements in Central Power's near and long-term planning.

Should the Commission require any additional information regarding this 2008 ten year plan, Central Power stands ready to furnish whatever further information is required.

**SECTION A**

Central Power does not own or operate any energy conversion facility.

**SECTION B**

Central Power does not have any energy conversion facility under construction.

**SECTION C**

Central Power does not have any plans to construct an energy conversion facility.

**SECTION D**

Central Power has not proposed any energy conversion facilities for the next ten-year period.

**SECTION E**

**EXISTING TRANSMISSION FACILITIES**

1. Central Power is not required by the Federal Energy Regulator Commission to file Form 12. Complete system maps and diagrams of the Central Power System are provided within the Central Power Long Range Transmission Study provided to the Commission previously. This document is supplemented by the system map attached to this report.
2. Central Power has five transmission facilities in excess of 115 kV:

<b><u>Facility</u></b>	<b><u>In Service Date</u></b>
Harvey 230 kV Substation	December 2, 1986
Underwood 230 kV Substation	December 4, 1981
Wilton Wind 230kV Transmission Line	December 3, 2005

<b><u>Equipment in Foreign Substations</u></b>	<b><u>In Service Date</u></b>
Hankinson 230 kV Substation (Otter Tail)	October 1, 1984
Wahpeton 230 kV Substation (Otter Tail)	December 1, 1985

3. Central Power has no plans to retire any existing transmission facilities within the next ten-year period.

## **SECTION F**

Not applicable to Central Power

## **SECTION G**

### **PROPOSED TRANSMISSION FACILITIES ON WHICH CONSTRUCTION IS INTENDED WITHIN THE ENSUING FIVE YEARS:**

1. Central Power's 1995 Long Range Engineering Plan identified a project to construct a substation with a primary voltage of 230,000-volts and a secondary voltage of 41,600-volts to be situated approximately mid-way between Tappen and Pettibone, North Dakota. Further studies have shown that this facility is not needed at this time, and the project has been postponed until area load growth indicates a need to re-examine the project justification.

## **SECTION H**

Not applicable to Central Power.

## **SECTION I**

### **PROPOSED TRANSMISSION FACILITIES DURING THE NEXT TEN-YEAR PERIOD (ELECTRIC AND PIPELINE)**

Central Power has no proposed transmission facilities in excess of 115-kV other than the facilities identified in Section G of this Ten Year Plan.

## **SECTION J**

1. Central Power is a customer of the Western Area Power Administration (WAPA) and a member of Basin Electric Power Cooperative. Central holds an all-requirements contract with Basin Electric for power supply above the amount provided by WAPA. Central is thus relieved of the responsibility for power generation and is able to benefit from Basin's and WAPA's comprehensive network of transmission facilities sized 115-kV, 230-kV, and 345-kV used in the delivery of power to Central's facilities.

Central Power, through its membership in Basin Electric and its association with WAPA, participates in the regional power supply network, and has worked with Basin

and WAPA to help develop their outstanding record of regional power supply and transmission planning with all electric utilities serving the area. Central Power's cooperation with its power suppliers assures maximum coordination with the Department of Energy, Montana Dakota Utilities Company, and the members of the Mid-Continental Area Power Pool.

In addition to the above, Central Power closely coordinates its transmission planning with Otter Tail Power Company. Since OTP serves most of the towns and cities in the same geographic area where Central Power serves rural load centers for distribution cooperative members, the two utilities are able to utilize each others transmission to a large extent. Central Power and OTP operate under a wheeling contract that has established an "integrated transmission system" that can be used by either party as required. The contract establishes requirements for joint planning and establishes methods of assigning responsibility for additional facilities to each party. This contract enables both Central Power and OTP to own an adequate, reliable transmission system with a minimum duplication of facilities or investment.

The Central Power Long Range Transmission Study completed in 1995 was developed with the cooperation and active participation of Otter Tail Power Company and will provide the basis for both the five and ten year plans of Central Power. This same cooperation between Otter Tail Power Company and Central Power is anticipated to continue over the years ahead.

Central Power has the contractual responsibility to coordinate and offer a reliable, adequate power supply for each of its consolidated members:

Dakota Valley Electric Cooperative, Inc. – Milnor and Edgeley, North Dakota  
McLean Electric Cooperative, Inc. - Garrison, North Dakota  
North Central Electric Cooperative, Inc. - Bottineau, North Dakota  
Northern Plains Electric Cooperative, Inc. - Cando and Carrington, North Dakota  
Verendrye Electric Cooperative, Inc. - Velva, North Dakota  
Capital Electric Cooperative, Inc. - Bismarck, North Dakota

*(A non-consolidated member who is also a Class A member of Basin Electric. Central is only responsible for a part of Capital's power supply requirements).*

Central Power was formed as a cooperative venture by the member distribution cooperatives to meet the demands of an increasing electrical load and to serve as the coordinating and planning agent for the members. Through these distribution members, Central Power helps serve rural electric consumer-members over a 25-county area in the central and southeastern third of North Dakota, a responsibility that demands a close working relationship with its member cooperatives to develop, operate and maintain the electrical transmission system.

2. Central Power works with Basin Electric Power Cooperative – Central Power’s all-requirements power supplier – in reviewing power planning arrangements and assisting with the preparation of forecasts of Central Power’s future load requirements.
3. Proposed facilities, however, would be those that meet criteria to serve Central Power’s six distribution members from a generation and transmission network that has been developed as a regional plan. Future facilities would be designed to utilize parts of other electrical utility systems, as well as Central Power-owned facilities, in order not to unnecessarily duplicate facilities. The other electrical systems are as follows:

Basin Electric Power Cooperative  
Western Area Power Administration  
Montana Dakota Utilities Company  
Xcel Energy (Northern States Power Company)  
Otter Tail Power Company

4. Central Power recognizes that the cost and construction difficulties associated with new facilities make coordinated planning as important now as at any time in the past. We would recommend that long range planning continue to include input from and cooperation between all utilities, industry, state planning agencies and state regulatory agencies.

## **SECTION K**

### **ENVIRONMENTAL INFORMATION**

1. Central Power’s environmental awareness has greatly influenced and shaped the methods used in planning, routing and locating the facilities built by the cooperative. Central Power has long been concerned over the impact of its facilities on the people in its area – who are, for the most part, its member-owners – and on the environment in which these people live.

Central has developed methods of line routing, procedures for public meetings and construction practices that closely follow the guidelines for transmission line routing and facility siting developed under the North Dakota Plant and Transmission Siting Act, and utilizes these guidelines as are relevant for 46-kV, 57-kV, 69-kV and 115-kV facilities that do not come under the requirements of this Act. Central will follow the requirements of the guidelines in the planning, routing and construction of all facilities in excess of 115-kV. In this endeavor, Central Power will employ its own personnel, reference advice from the North Dakota Public Service Commission, utilize advice and help from Basin Electric and utilize the help of hired expert consultants to meet all of the requirements of this Act.

## **SECTION L**

### **PROJECTED DEMAND FOR SERVICE**

1. Central Power's Long Range Transmission Study and other cooperative planning is based on the 1995 Power Requirement Studies (PRS) of Central and its members prepared by Basin Electric. A copy of the 1995 PRS summary was furnished to the Commission with the 1995 Ten Year Plan and the 2007 Load Forecast was supplied in 2007.

All RUS electric distribution and power supply borrowers must conduct Power Requirement Studies which are used in engineering and financial studies, including long-range planning, system work plans, rate studies, financial forecasts, and any studies in support of loan applications. The 1995 PRS and 2007 Load Forecast were prepared in accordance with RUS general guidelines and the procedures specified in the PRS work plan submitted to and approved by RUS.

The PRS and LF were conducted according to consumer classification, including residential-rural, small commercial and industrial (50 KVA or less), large commercial and industrial (larger than 50 KVA), public building, residential-seasonal, irrigation, security lights, public streets and highway lighting. Future kWh usage per average consumer is projected for each classification and based on an econometric model that was developed taking into consideration factors that statistical and economic analysis indicates has historically influenced Central Power member's load.

The total projected usage for each consumer classification is obtained from the result of the projected consumer and average use per consumer. The cooperatives' total power requirements are then calculated based on the individual consumer classification totals.

Central Power's demand and energy loads are detailed in the 2007 Load Forecast.

2. Central will continue to meet its projected peak demands through the purchase of power from the Western Area Power Administration and from Basin Electric, as detailed in the Power Supply Section of the LF.
3. Central's load centers are the distribution substations that serve the distribution needs of its members, which are identified, mapped and detailed for review in the 1995 Long Range Transmission Study.