

**Dale Niezwaag - Basin Electric Power Cooperative
Energy Development and Transmission Committee
March 20, 2012**

Mr. Chairman and members of the committee, my name is Dale Niezwaag. I represent Basin Electric Power Cooperative and I am here today to update the committee on the work Basin Electric is doing to meet the growing need for electricity in Williston Basin area from a generation and high voltage transmission line perspective.

The area's I plan to cover today include the load growth projections we anticipate in the Williston Basin area, what Basin Electric is doing to meet the current generation and transmission needs and what we are doing to meet future growth.

Everyone on this committee and in this room is all too familiar with the Williston Basin area we are talking about. As part of our normal planning process, Basin Electric, in conjunction with our member systems conduct load growth surveys. Because of the long lead times needed to bring large generation resources online the load forecast normally looks at a 15-20 year timeframe. In the past we have done this every other year but with the large load growth we are seeing in the Williston Basin we have been forced to do the survey on an annual basis.

The chart shown on the slide is only for the Williston Basin area, as you can see the load forecast done in 2009 showed a somewhat flat but slightly increasing forecast. The forecast done in 2011 shows a significant increase and growing load profile with a significant jump in the 2014 time frame. In the 2012 forecast that large jump we saw happening in 2014 has now moved into 2013. The 2012 forecast calls for an increase in load, just in the Williston Basin of 1,000 megawatts by 2025. To give you a frame of reference 1,000 megawatts is equal to the capacity of either the Coal Creek Station near Washburn or the Antelope Valley Station near Beulah.

Basin Electric has been adding generation for the last several years to meet growing load in the Williston Basin and our entire service area. As most of you know there has been a long standing bottle neck for transmission capacity which made exporting generation out of the state difficult so Basin Electric has been building generation outside of North Dakota to allow more of

the existing in-state generation to serve load growth in the Williston Basin and take some pressure off the transmission export capabilities.

Basin Electric has added 100 megawatt natural gas peaking plants in Groton SD and Culbertson MT. We have also added a 385 megawatt coal plant near Gillette Wyoming called the Dry Fork Station that came on line in November of 2011. By the summer of this year we will bring online a 300 megawatt intermediate combined-cycle natural gas unit in the Brookings SD area called the Deer Creek Station. The difference between a peaking plant and an intermediate plant is that the intermediate plant is designed to run more hours, for example 7 a.m. to 7 p.m. on a regular basis vs. the extreme hot or cold times for a peaking plant.

Even though we have added a significant amount of generation it has not been enough to meet the load growth we are experiencing in the Williston Basin. To meet this load growth Basin Electric will have to add natural gas peaking plants directly in the Williston Basin area. At this time we are in the process of permitting and developing two new natural gas peaking plants, one outside of Williston ND named the Pioneer Station and another outside of Watford City ND called the Lonesome Creek Station. These plants are each 45 megawatt, \$65 million stations that will be online in the spring of 2013.

Along with the additional peaking plants, Basin will be transferring power into the area to meet the growing load. Basin Electric is in a unique situation of having load and generation on the east and west sides of the nation's electrical grid separation. At the current time we have a generation surplus with our west side resources and a generation deficit on the east side so we will be transferring some power from the newly developed Dry Fork station on the west side of the divide to the east side to meet load needs. We will also be buying power on the open market to meet the demand for power.

Adding peaking plants in North Dakota is a quick, short term solution to meet increasing demand. To get ahead of the load growth curve we are also beginning to conduct siting studies for additional peaking and intermediate generating plants to reduce the amount of time needed to construct additional generation units.

Generation is only one part of the equation, once the power had been generated it must get transported to the where the loads are. To move the additional generation the transmission

systems must be built or upgraded. As with the case of additional generation Basin Electric and the Western Area Power Administration (WAPA) have been working in close cooperation the past several years to deliver power to the Williston Basin. In 2010 Basin Electric built 74 miles of 230 kilovolt (kV) line from Rhame to Belfield and in 2011 built 61 miles of 230 kV line from Williston to Tioga. In 2012 WAPA will finish upgrading the Charlie Creek to Williston line from 115 kV to 230 kV. When WAPA completes their upgrade work it will provide a 230 kV loop around the load growth area in western North Dakota. At that time there will be two transmission loops around the area, a 115 kV loop and a 230 kV loop. The 230 kV upgrade will significantly increase the load carrying capability to that area. As significant as that work is our forecast indicates that we will still not have enough transmission to meet the projected load growth.

So to further increase the load carrying capability Basin Electric is in the process of obtaining permits and conducting studies to build a 200 mile 345 kV line from the Antelope Valley Station near Beulah around the west side of Lake Sakakawea to Tioga. The problem is the amount of time that is needed to complete an infrastructure project of this size. Basin will have to conduct a full Environmental Impact Study (EIS) before any construction can begin. We anticipate the EIS will take three years to complete and then construction of the line will take another two years, so this line will not be in service until 2016.

All of the items I have outlined will provide our members with the generation and high voltage transmission needed to meet the loads on a short term (5-10 year) basis, to meet the long term needs we will have to develop more baseload generation. Basin Electric is beginning the process to determine the best long term, least cost, options for our members. At this time all options are on the table including coal, natural gas, and nuclear but as with other large infrastructure investments it will take a significant amount of time and resources to determine the best path forward.

Along with our member load forecasts, Basin Electric is working with the North Dakota Transmission Authority to fund an independent, third party study of the electrical load development in the Williston Basin. If you have any questions on that study Sandi Tabor is available to respond.

This concludes my testimony and I will try to answer any questions from the committee.

Williston Basin Load Growth

March 2012

Topics

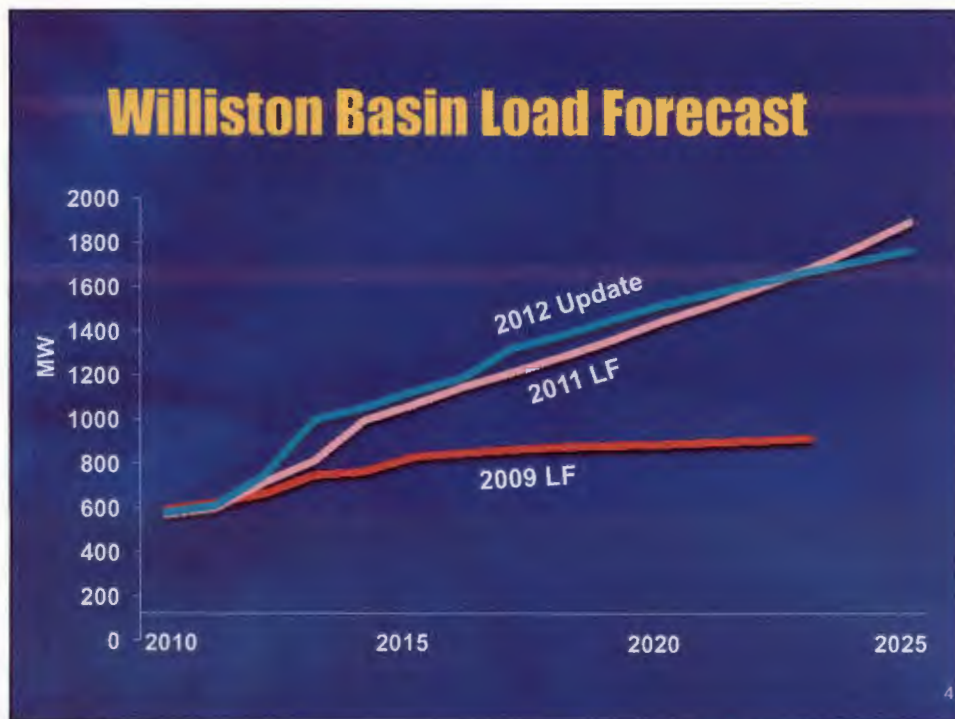
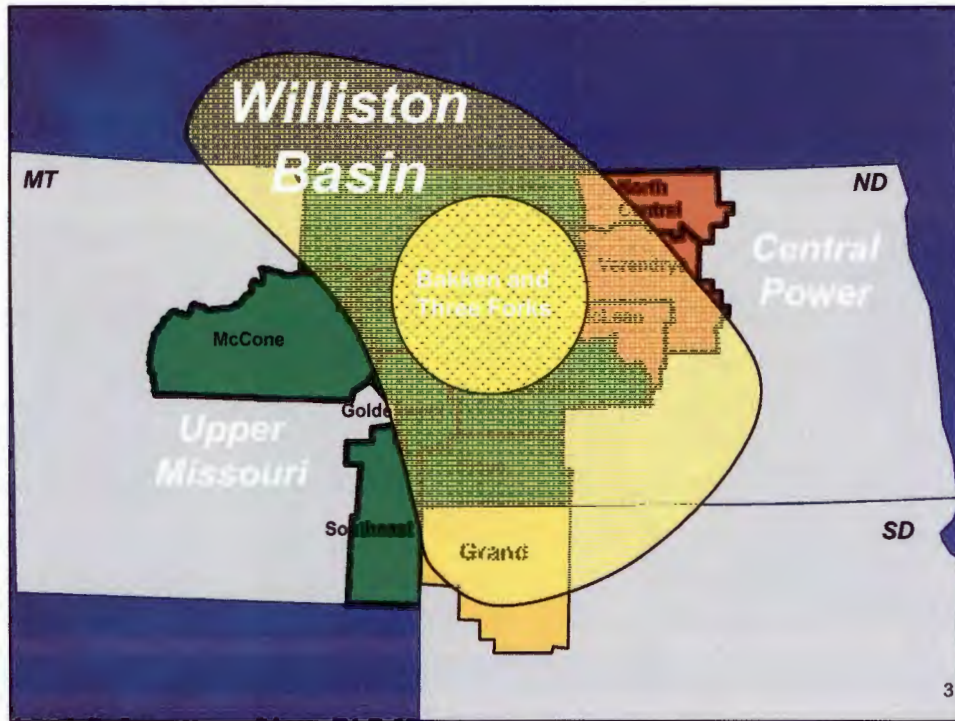
Load Growth

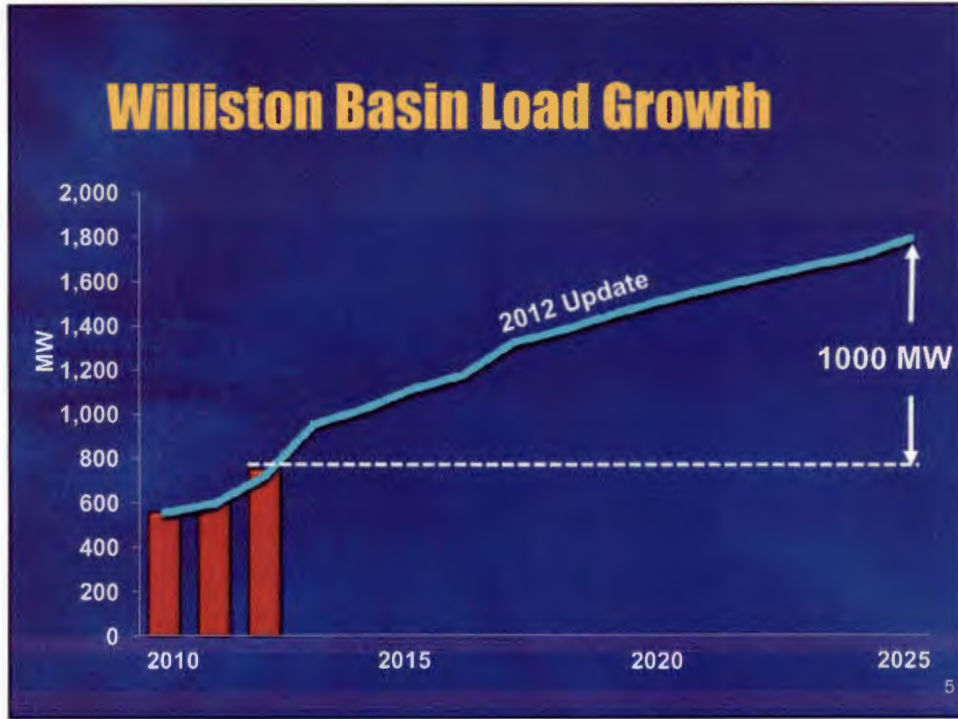
Generation Issues

Transmission Issues

Options

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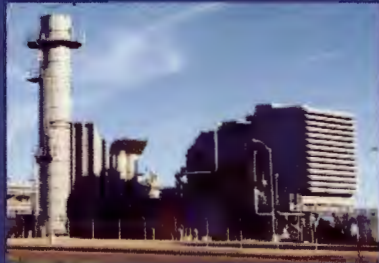




Regional Generation

Peaking Power Plants Added

- Groton, SD
- Culbertson, MT



New Coal Generation

- Dry Fork Station, Gillette, WY
 - 385-net megawatt base load; \$1.35 billion
 - Fueled by subbituminous coal
 - Commercial operation November 2011

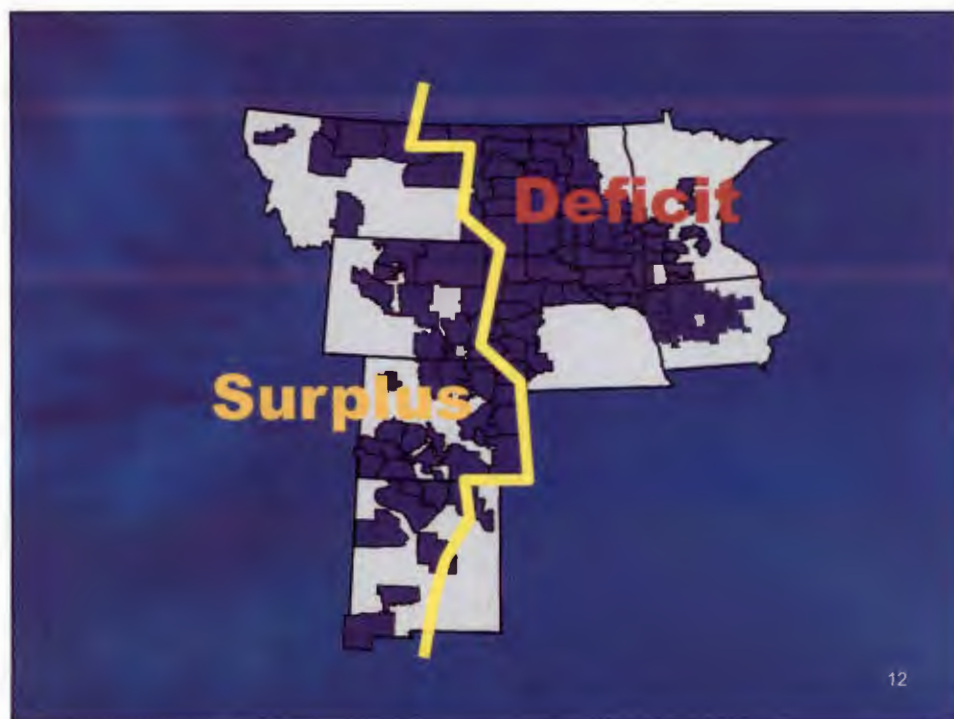


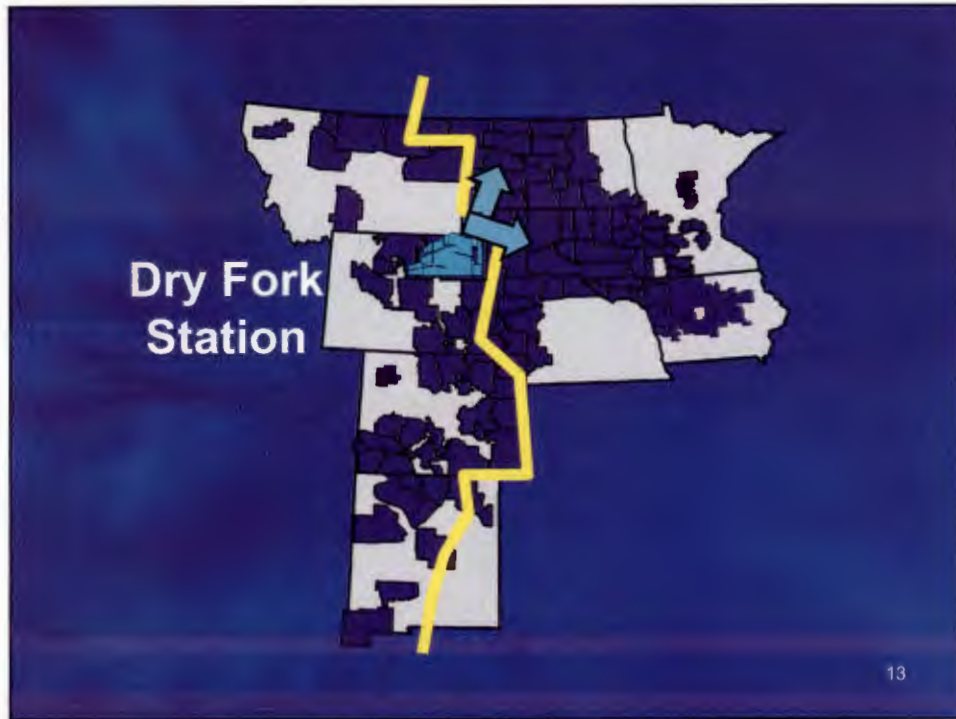
New Intermediate Natural Gas Generation

- Deer Creek Station, Elkton, SD (near Brookings)
 - 300-megawatt combined-cycle unit
 - Construction began in July 2010
 - Commercial operation July 2012



North Dakota Generation





Options to Address Increasing Load

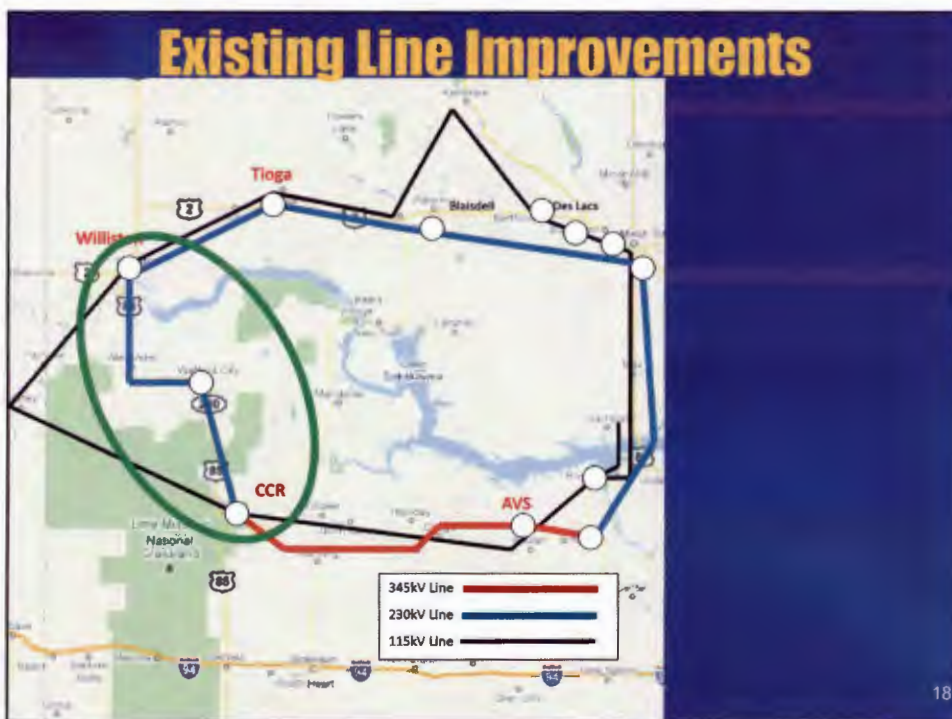
- Siting Studies
 - Additional < 50 MW natural gas unit
 - Additional 100 MW natural gas unit
 - Additional 300 MW natural gas unit

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Transmission Issues



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Long-term Strategy

- Build resources or obtain long-term power purchase agreements to meet obligations on a least cost basis



Discussion