

Quadrennial Energy Review

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Thank you for the opportunity to share a little about the electric infrastructure expansion activity in our region.

My name is Claire Vigesaa, and I am the General Manager of Upper Missouri Power Cooperative. Upper Missouri was organized in 1957 to serve electric transmission needs of rural electric distribution cooperatives in Eastern Montana and Western North Dakota. Upper Missouri provides transmission services and power supply aggregation for ten electric distribution cooperatives; five in Eastern Montana, and five in Western North Dakota. Our power comes from two major suppliers: about 94% from Basin Electric Power Cooperative, and the rest from the Western Area Power Administration.

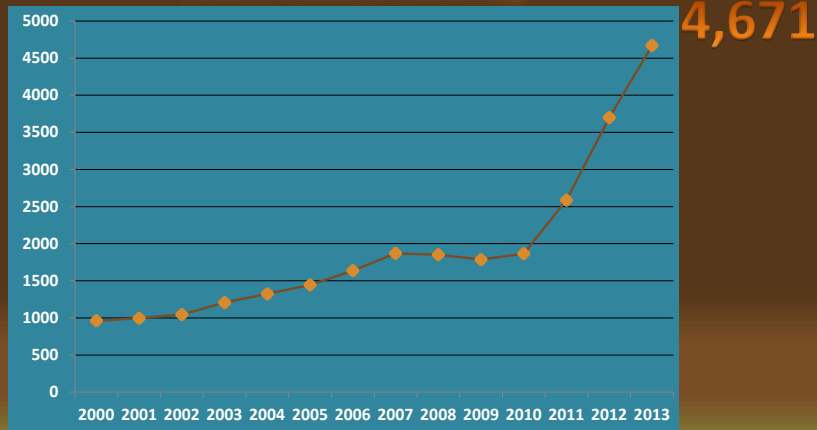
The Upper Missouri family now serves nearly 63,000 meters covering over 51,000 square miles. Our service territory is roughly about the size of the states of Virginia, Maryland and Delaware combined, including Washington DC, but our customer density is much, much lower than that, averaging about 2.0 meters per mile of line.

Upper Missouri, like other electric cooperatives, operates on a not-for-profit basis. This means that we do not exist to provide profits to investors, but rather solely to provide affordable and reliable electric service to our members. For our members, reliability is paramount, but in rural America, affordability is also particularly important. It is our responsibility to ensure that energy is delivered reliably, at the lowest possible cost.

Today, the Upper Missouri region has been transformed into a world-renowned oil and gas exploration play. Our service area includes the heart of the oil/gas play. Nearly every one of the 184 drilling rigs is in our region. Upper Missouri has seen explosive energy sales and demand growth, from 186 MW in 2004 to now an 800MW system, representing nearly 25% of Basin Electric Power Cooperative's Member Sales.

The following charts illustrates the growth we've experienced since the year 2000; from about 1000 GWhs sales in 2000 to 4,671 GWhs in 2013. Our peak in 2004 was 186 MW...our peak in 2014 was 798 MW.

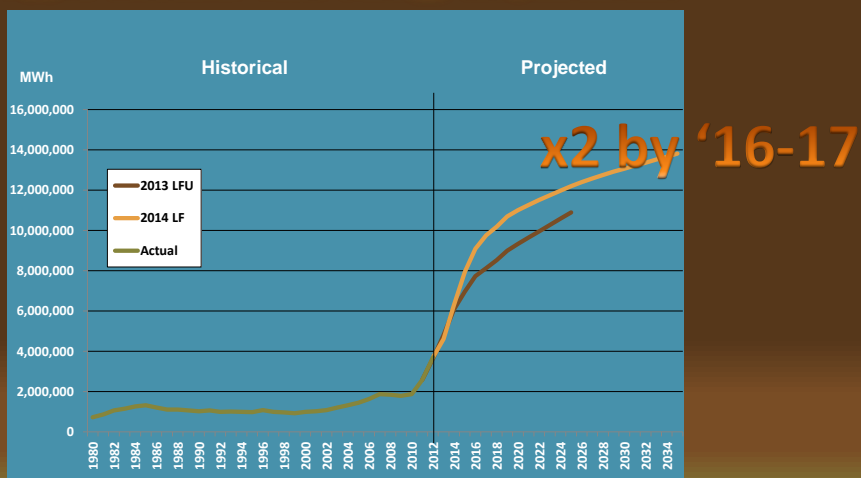
GWH Sales History

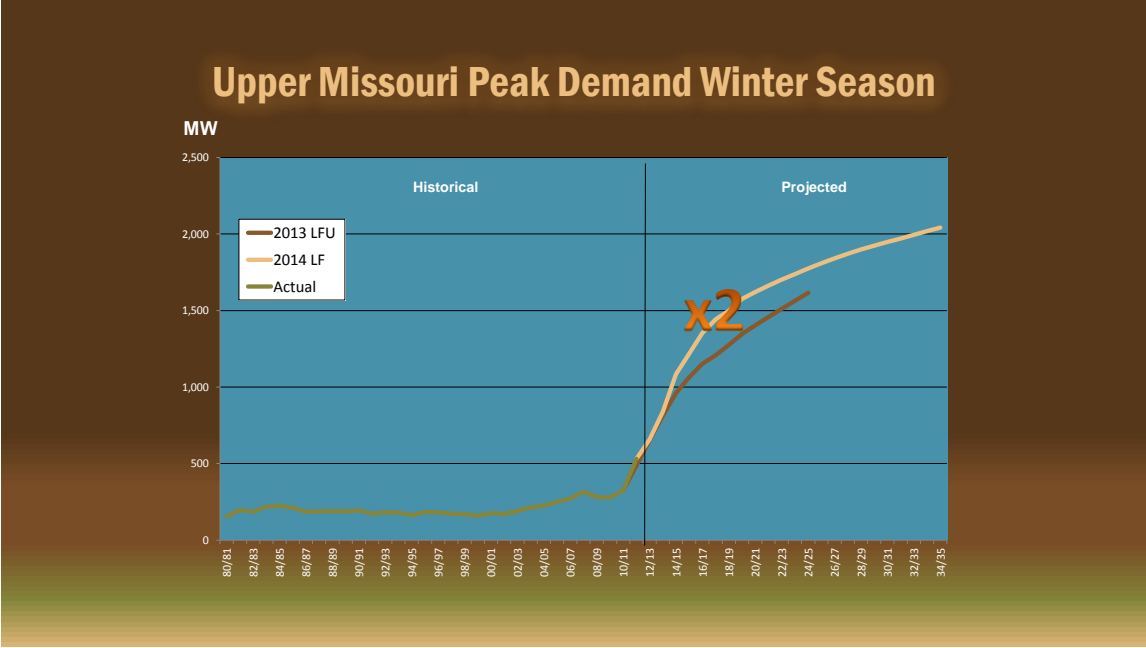


While the past few years of growth has been phenomenal, the next few years will be phenomenal on steroids. The introduction of new oil drilling technologies, improved operation systems, multiple well drilling pads, and new efficiencies will accelerate demand for electric energy in the region. The Upper Missouri family will double its 2013 demand/energy sales by mid-2016; growing to 1,400 MW system and 9,000 GWHs in sales.

Our conservative forecast suggests that Upper Missouri will need 1903 MW of capacity and will have energy sales of 12,000 GWHs in 2024. I suggest that this is conservative, since heavy investment in oil/gas exploration and recovery technology could influence the rate of growth dramatically.

Upper Missouri Total Energy Requirements





Over the past ten years, Upper Missouri, its ten distribution electric cooperatives and our power supplier, Basin Electric Power Cooperative have made huge investments in transmission lines, transmission substations, distribution substations and generation to meet the rapidly growing energy requirements. Over 1139 miles of transmission lines, 25 large transmission substation/switchyards, 72 distribution substations and 360 MW of new generation have been built...yet, transmission capacity is extremely tight today and will continue to be for the next two/three years.

Table: Cooperative Projects from 2004-2013

Electric Cooperative	Transmission Lines Miles	Transmission Substations	Distribution Substations	Generation MW
Upper Missouri G & T Electric Cooperative	11	3	0	360
Basin Electric Power	410	3	0	
<i>Distribution Cooperatives</i>				
Burke-Divide	69	0	5	
Goldenwest	7	0	1	
Lower Yellowstone	55	1	5	
McCone	23	0	0	
McKenzie	175	4	15	
Mountrail-Williams	218	10	25	
Roughrider	24	1	10	
Sheridan	110	1	3	
Slope	37	0	8	
Southeast	0	2	0	
TOTAL	1139	25	72	360

As an electric cooperative family we have several hundred miles of new transmission line on the drawing board or in the permitting process. In addition to the transmission facility build out, our power supplier, Basin Electric is strategically locating gas generation and capacitor banks in the region. Further, Basin Electric is entering into wind energy project contracts and has plans to join an RTO by the fall of 2015. These projects and initiatives are critical to assuring transmission capacity and power supply to farms, homes, communities and industry in the region. We have literally no room for delays.

We are pressed in every direction, but remain committed to our cooperative principles and stewardship. Constraining elements in our transmission and generation construction include:

1. System reliability and Affordability
 - a. We as electric cooperatives are very safety and reliability conscious
 - b. We are investing time and resources to build safe, stellar, affordable and reliable systems
 - c. We will not compromise safety or reliability!
2. Human resource limitations
 - a. Projects take an incredible amount of engineering/planning
 - b. Traditional long-term planning is not our luxury
 - c. Labor supply is extremely tight
3. Landowner easement fatigue
 - a. Landowners are weary of granting easements for
 - i. Electric lines
 - ii. Gas lines
 - iii. Telecommunication lines
 - iv. Petroleum pipelines
4. Rail Crossings
 - a. Permitting to cross rail lines is exhaustive
5. Public Land Crossings (U.S. Forest Service, National Grasslands, Tribal etc.)
 - a. Access to build through public lands is difficult and time consuming
 - b. It is awkward that public lands push projects on to private landowners
6. Environmental Studies
 - a. Electric cooperatives share values of land stewardship
 - b. However the process is lengthy and burdensome
 - c. Balance is desired
7. Endangered Species (sage grouse, eagles, whooping cranes, etc.)
 - a. Electric cooperatives share values in maintaining wildlife habitat
 - b. But the process is lengthy and burdensome

c. Balance is desired

In summary, we take our job very seriously! We feel our responsibility to provide safe, reliable and affordable energy to our new member-consumers as well as our legacy member-consumers. We feel proud to be able to be a part of this oil/gas development. We are pleased to welcome international businesses to our region, new business start-ups, as well as new families and workers from every state in our country.

We consider our work as a huge contribution to national energy independence, national security, and national economic stability. To meet the needs of the region, we'll be investing heavily to provide generation, transmission and distribution services. We'll need critical cooperation from our landowner member-consumers, oil/gas companies, local government, agencies, and yes, the US Department of Energy, EPA and others.