

contacts

If you have questions or comments about the project, or would like to be added to the project mailing list, please contact:

Dan Rapkoch
Communications
Manager, MSTI
(406) 490-1895

www.msti500kv.com
msti@northwestern.com

planning for growth: MSTI

People often ask how we came to decide to build the proposed 500kV transmission line known as MSTI. The project was first publicly announced in mid-2006, but it's been on the drawing board for quite some time.

Our company, like most major utilities, has a planning process that incorporates known and planned near-term growth with economic conditions to develop a long-range forecast. This forecast, which projects up to 30 years into the future, compares anticipated need for electricity to what's in place today and identifies gaps that may exist between demand and supply. It helps us determine whether our infrastructure is adequate for future need, and if not, when we have to install upgrades to meet anticipated need.

This process was used to identify the potential need for a new transmission line between Montana and Idaho; however, it wasn't until we conducted an Open Season that we were able to

determine actual interest in the project. (An Open Season is a reservation process borrowed from the pipeline industry that enables pipeline customers to reserve capacity or space in a pipeline to move their product from one point to another.) We used a modified version of an Open Season to determine interest in the MSTI.

This information was used to determine the size and scope of the MSTI project. A second Open Season is planned in 2009, at which time potential customers will be required to make deposits to reserve their space on the system. Once that process is complete, results of the open season will determine how NorthWestern will proceed.

This process will continue right up until construction begins, ensuring that the project will be cost effective and meet the needs of both the company and its customers throughout its anticipated life span. ■

did you know: answers to frequently asked questions

Where can I get more information about Electromagnetic Fields?

Electromagnetic fields or EMF's is a topic that has been studied relentlessly for years and to date there is no scientific evidence linking health risks with high voltage power lines. Montana is one of the few states with EMF regulations that place limits on electric field strength at the edge of the Right of Way (ROW). In addition to information posted at www.msti500kv.com and www.northwesternenergy.com, we encourage you to learn more about this subject from the following independent but reputable sources:

World Health Organization: <http://www.who.int/peh-emf/en/>

National Cancer Institute: <http://www.cancer.gov/cancertopics/factsheet/risk/magnetic-fields>

National Institute of Environmental Health Sciences: <http://www.niehs.nih.gov/health/topics/agents/emf/>

Can high voltage transmission lines be buried?

While there are two potential technologies that exist, burying high voltage 500kV transmission lines is not practical. Small segments of 230 kV and below underground are now being used in constrained urban areas like New York City and San Francisco but that same technology is yet to be used at 500kV in the US. In fact, there are only two installations in North America of underground 500 kV – both less than 1500 feet and at large generation stations.

Large world-wide mega cities like Tokyo, Japan, and Shanghai, China now have some installations of underground 500kV but still very short segments and are installed for one reason only – there simply is no possible overhead space to locate an overhead line so the lines are installed in subway style tunnels under these large city.

Some technologies involve an oil-cooled system not unlike an oil pipeline only bigger. Because the segments are only about 1,500 to 2,000 feet in length – splicing must be done in massive underground vaults measuring 35 feet long by 7 feet tall by 8 feet wide will be required and will take up a great deal of space.

The construction is a massive undertaking and involves significant environmental disruption (usually in the form of major trenching) and ROW is not available for any other use – it must be removed of any wooded vegetation and completely accessible at all times.

The cost of burying lines as large as 500 kV is excessive as well. The cost can run upwards for 10 - 20 times the cost of overhead construction. At 500 kV where the average overhead cost is \$1.5 million per mile, underground cost could run 10 - 20 times this amount making the project unfeasible. Costs are ultimately born by the customers of the facility.

For more information about underground high voltage transmission lines visit www.msti500kv.com and www.northwesternenergy.com.



Mountain States Transmission Intertie

PROJECT UPDATE

July 2009

what's inside?

This project update is intended to provide information to interested individuals about the Mountain States Transmission Intertie. This newsletter is published periodically as new information is available; however, we encourage you to visit our Web site for additional information throughout the year: www.msti500kv.com

For more information on the status of the environmental review process, please visit our Web site or the following agency Web sites at: www.blm.gov/mt/st/en/prog/lands_realty/projects.htm www.deq.mt.gov/MFS/MSTI/MSTIindex.asp

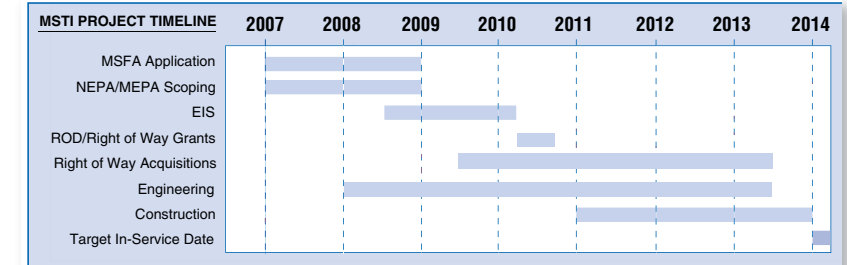
Why build MSTI?

The world is constantly changing. In less than a century, the use of electricity has transformed from a luxury to a necessity. Population centers have shifted. The generation of electricity has changed from reliance on hydro and fossil fuels to renewable fuels such as wind and solar.

The western electricity grid known as the Western Electric Coordinating Council, is an interconnected network of lines that provide reliable service to customers in 14 states and two Canadian provinces. The network was built decades ago to carry power from dams, nuclear and coal plants to cities and towns; however, the West has grown significantly over the past 30 years and climate change concerns are changing how we generate and deliver electricity.

NorthWestern Energy is one of several regional transmission operators in the West. The company is required by federal law to provide fair and equal opportunity to all generators who want to move power through and across its transmission system. It is also has an "obligation to serve" meaning that it must be responsive to customer requests for service.

NorthWestern Energy uses a "queue" process – first come, first served – to provide access to its



MSTI Facts
Estimated line length – 400 miles
Cost of Construction – \$1 billion
Cost per mile – \$1.5 million
Structures per mile – 4 to 5 depending on geography
Easement width 220 ft

system. As of March 2009, the company had interconnection requests from generators wanting to connect over 4,500 megawatts (MW) of electricity to its system.

There is over 3,000 MW of existing generation today in Montana. So Montana is a "net exporter" of energy - just like our major industries like timber, ranching and mining. NorthWestern's regulated customer base in Montana consumes at most 1,800 MW during peak operating conditions (the hottest and coldest days of the year). Montana has significant resource potential, but the demand for this renewable energy is outside of the state.

Nearly all of the projects in NorthWestern's queue are proposed wind farms. While not all of these projects will be built, NorthWestern Energy needs to provide additional capacity to its system to enable these projects to reach customers in states that need the power.

That's why in 2006, NorthWestern proposed a new transmission project, the Mountain States Transmission Intertie or MSTI for short. MSTI is a 500kV transmission line that is designed to carry up to 1,500 MWs of electricity from its collection point at Townsend, Montana to the Midpoint substation near Twin Falls, Idaho where it will interconnect to other power lines that will carry it to homes, businesses and schools across the West. ■

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wage and job benefits

During construction MSTI will employ over 290 workers. The total estimated construction wages will be \$38 million in Montana. Local income will be approximately \$6 million and outside workers income will be over \$10 million. Disposable income locally is estimated at over \$11 million. ■

Here are just a few of the jobs and salaries associated with the construction and operation of wind generating facilities and MSTI.

- ◆ Industrial Truck Drivers – \$29,780/year
- ◆ Machinists – \$33,600/year
- ◆ Maintenance and Repair Workers – \$31,630/year
- ◆ Industrial Machinery Mechanics – \$51,240
- ◆ Electrical Engineers – \$64,800

This data is from the MTCIS National Occupations Database prepared by IntoCareers, University of Oregon, O*Net Database 13, and the May 2007 panel of the Occupational Employment Survey.

the route determination is still ongoing

The Montana Department of Environmental Quality in cooperation with the Bureau of Land Management and the US Forest Service is writing a draft Environmental Impact Statement (EIS) with a complete analysis of the needs and impacts identified through this process.

In July 2008, NorthWestern filed its MFSA application with the Montana Department of Environmental Quality and the Bureau of Land Management. In December 2008, the Montana DEQ determined the MFSA application complete. The two agencies have initiated an EIS for the project. The EIS is necessary to satisfy the Montana Environmental Policy Act (MEPA) and the National Environmental Policy Act (NEPA) requirements. The two agencies hired a third part contractor, PBS&J to analyze and review all relevant data associated with these environmental reviews and will work with the various agencies including MT DEQ, BLM, the U.S. Forest Service, Idaho Office of Energy Review, U.S. Department of Energy, Idaho National Laboratory, USDA Sheep Experiment Station and 8 field offices of the BLM and Forest Service. In all, over 50 permits and siting authorities are required as the MSTI project moves forward.

The agencies and NorthWestern Energy have held 12 separate open house meetings in Montana and Idaho in 2007 and 2008. There have been a number of elected official meetings with county commissioners and other elected officials in the counties impacted by the project and we have begun another round of these meetings.

There have been 3 EIS scoping meetings in Montana in September 2008 and 3 in Idaho in September 2008. The next round of EIS scoping meetings will be held this fall after the Draft EIS is released. At that point the public can make additional comments on the route selected.

Montana tax benefits

New production facilities and transmission lines will result in additional property taxes for local government to help fund schools and essential services. Depending on the final route destination in the Environmental Impact Statement, MSTI will contribute from \$12 to \$37 million dollars per year in additional annual property tax revenue,

The public process for the MSTI line was initiated by NorthWestern in earnest in 2006 when a definable need for the addition of renewable energy to the western United States was established. Since beginning its study of building the MSTI line, NorthWestern has made sure that the letter and spirit of the MEPA and the NEPA have been maintained.

In order to have a well-reasoned EIS, assumptions and best and worst case scenarios must be taken into consideration by those studying the impacts of the project. Within its MSTI applications, NorthWestern has identified what it would consider the preferred route for building the line.

The purpose of the EIS is to determine and analyze the impact of the project and weight them against the benefit and need of the Project.

NorthWestern has also been contacted by several concerned citizens groups. These citizens have voiced their concerns about the proposed routes for the MSTI line. NorthWestern has met with them to provide information and explain the siting and permitting process. We also encourage those with additional concerns to stay informed as the EIS process moves forward and to comment on the draft EIS when it is released this fall.

This draft EIS is scheduled to be out for public comment in October 2009. NorthWestern maintains a project website at www.msti500kv.com and will have the final draft on line for additional review and comment. MTDEQ and the BLM also have project websites. ■

www.deq.mt.gov/MFS/MSTI/MSTIindex.asp
www.blm.gov/mt/st/en/prog/lands_realty/projects.htm

depending on the market value assigned by the Montana Department of Revenue and assuming the facilities are classified as class 9 property. Communities along the route will see additional revenue from the construction phase as workers will need places to eat, sleep and shop. ■

MSTI Potential Tax Impact by County Range of Estimated Property Tax Payments			
County	From	To	Increase to Property Tax Base
Beaverhead	\$2,700,000	\$7,200,000	63% - 167%
Broadwater	\$6,200,000	\$12,400,000	160% - 423%
Deer Lodge	\$200,000	\$10,800,000	5% - 290%
Jefferson	\$900,000	\$3,200,000	14% - 50%
Silver Bow	\$250,000	\$5,000,000	1% - 21%

renewable energy – makes a difference to the environment

According to the DOE, a 1.5 MW wind turbine can power 500 homes and displace 2,700 metric tons of CO₂. Therefore, if MSTI is fully subscribed with clean renewable wind power, it will help displace more than 2.7 million metric tons of greenhouse gases and provide enough electricity to power 5 million homes. Today's wind farms produce enough wind energy to becoming a significant contributor to the U.S. power mix. Experts estimate that wind energy could provide as much as 20% of our nation's electricity. Right now wind projects accounted for 35 percent of all new U.S. electric generating capacity in 2007, and transmission facilities capable of generating a total of over 200 GW of wind power are in the early stages of development throughout the nation. Wind generation could account for upwards for 500,000 jobs over the next 20 years. ■

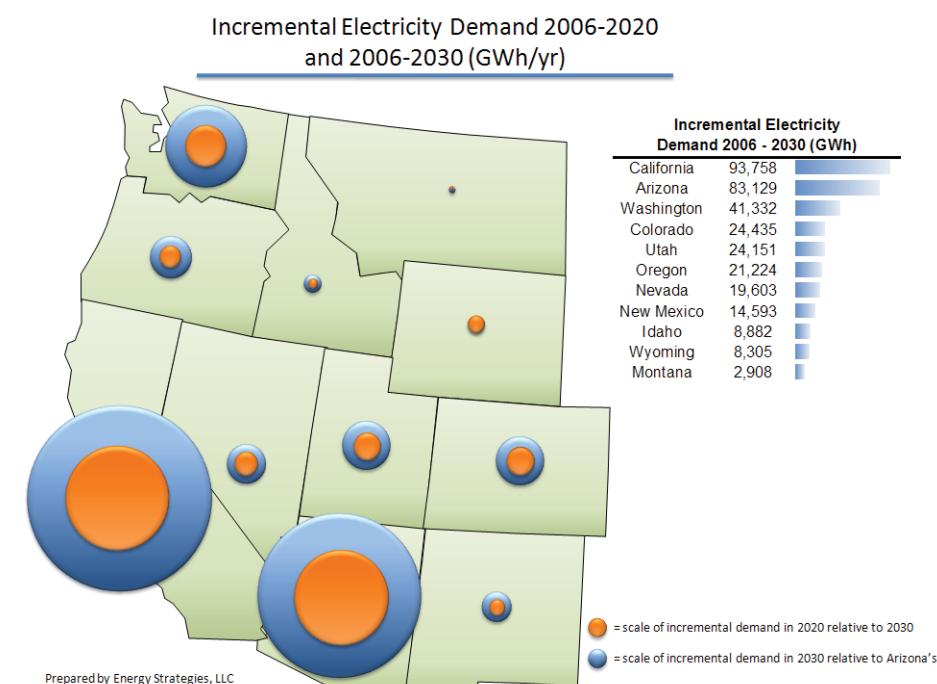
CO₂ emissions and water conservation benefits

In 2004, the average Montana resident emitted approximately 22.7 tons of CO₂ from electricity consumption. As a state, Montana ranked 5th in per capita electricity sector CO₂ emissions.

Developing wind power Montana will result in CO₂ emissions reductions and water savings. ■

Annual Impacts in Montana from 1000 MW of New Wind Power	
Water Savings	CO ₂ Savings
1,207 million gallons	2.9 million tons

The demand for renewable energy produced in Montana is needed throughout the western United States.



acronym glossary

- MSTI**
Mountain States
Transmission Intertie
- DOE**
Department of Energy
- MFSA/ER**
Major Facility
Siting Act/
Environmental Report
- EIS**
Environmental Impact
Statement
- RPS**
Renewable
Portfolio Standards