Center to Grand Forks Project

Minnkota Power COOPERATIVE, INC.

Frequently Asked Questions

Who is Minnkota Power Cooperative?

Minnkota Power Cooperative, Inc. (Minnkota) is a regional generation and transmission cooperative formed in 1940 that serves 11 member-owner distribution cooperatives. It also serves as operating agent for the Northern Municipal Power Agency, an association of 12 municipal utilities in the same service region. Together, the Joint System serves more than 130,000 customers. Minnkota's service area of 34,500 square miles is located in eastern North Dakota and northwestern Minnesota and is headquartered in Grand Forks, N.D.

Why are new transmission lines being proposed?

Minnkota has entered into a new agreement with Minnesota Power, located in Duluth, Minn., which will provide additional long-term baseload power supply for Minnkota and will allow Minnesota Power to develop significant wind energy facilities in central North Dakota.

The Milton R. Young Station is a lignite-fired electric power plant located near Center, N.D., with two operational units: Young 1 and Young 2. This new agreement between Minnkota and Minnesota Power calls for Minnesota Power to purchase the transmission line built in 1977 that connects to Young 2. Minnesota Power will use that line to deliver new wind energy from Center to Duluth.

In exchange for this line, Minnesota Power will transfer its 50 percent of the energy rights it now has in Young 2 to Minnkota. To deliver the energy produced by Young 2 to Minnkota's service area, Minnkota will build a new transmission line from Center to Grand Forks, N.D.

Where will the energy that flows on the new lines come from?

The Milton R. Young Station is the primary generating facility for Minnkota. Located near the town of Center, the Young Station consists of two units, Young 1 and Young 2.

Young 2, which began generating electricity on May 11, 1977, is owned by Square Butte Electric Cooperative and operated by Minnkota. Currently, the output from Young 2 is purchased under contract by Minnkota and Minnesota Power. Under the new agreement, Minnesota Power will transfer its 50 percent of the energy rights to Minnkota over a 13-year period beginning in 2013.

Will wind energy be on the new lines?

One of the goals of the project will be to free up the capacity of an existing transmission line in North Dakota to carry wind energy. North Dakota ranks high in the country for wind energy potential. The immediate purpose of the Center to Grand Forks Project is to allow energy from proposed Minnesota Power wind energy facilities to be transmitted over the existing HVDC transmission line (currently used by Young 2). Power from Young 2 will be carried over the new line. Future opportunities to carry renewable energy over the new line may also exist.

Who will benefit from the transmission improvements?

All electricity customers in the Minnkota service area will benefit from a more robust and reliable electric transmission system. The expansion will also increase the capacity of the existing electric grid system to carry wind energy. The expansion of the renewable energy industry in North Dakota will benefit the entire state and region.

How will I find out if my property is potentially affected?

Minnkota plans extensive outreach to property owners and community members within the study corridors. This Web site and the Project information line (800-473-5679) will be maintained to provide up-to-date information regarding the progress of the Project. Meetings are being held with landowners, local governments and the public to help determine the final route of the transmission line and identify property impacts. These initial meetings will be helpful in documenting property ownership and all avoidance areas in the potential corridor. A contact list will be maintained that will be used to mail important project information as well as announce upcoming public meetings.

Current project maps are available on the Resources page (www.minnkotacgf.com/resources.html) and you can leave your comments for the study team on the Contact Us page. You can also call the project information line at 800-473-5679. Your call will be returned in a timely manner. Minnkota is dedicated to keeping the public involved in the public process. Please feel free to contact a member of the team at any time.

How can I get involved?

You can provide comments to Minnkota on both routing and project need at public meetings, on the Contact Us page, or on the project information line (800-473-5679). All comments, information and suggestions are valued and will be responded to in a prompt manner. Also, go to the Contact Us page to join the mailing list to keep informed on project activities and public events.

What permits are required for the Project?

If financing is provided by the USDA Rural Development's Electric Program, Minnkota is required to comply with the National Environmental Policy Act (NEPA). Federal permits may be required by agencies, including the U.S. Army Corps of Engineers (USACE) and the U.S. Fish and Wildlife Service (USFWS).

Minnkota will follow the North Dakota Regulatory Process by applying for two permits from the Public Service Commission (PSC): a Certificate of Corridor Compatibility (N.D.C.C. Section 49-03) and a Route Permit (N.D. Admin Code 69-02). Additional permits from state agencies may be required including the North Dakota Department of Transportation and the North Dakota Department of Health. Other state agencies will be consulted, including but not limited to the State Historical Society of North Dakota, the North Dakota Game and Fish Department, North Dakota Parks and Recreation and the North Dakota State Water Commission.

In addition to the federal and state permit requirements, local Conditional Use Permits (CUPs) along with other local permits may be required. Minnkota will coordinate with local officials throughout the Project.

What is the regulatory process?

As Minnkota is seeking financing from the USDA Rural Development's Electric Program, Minnkota is required to comply with the National Environmental Policy Act (NEPA). The regulatory process is outlined in 7 CFR 1794.

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What do transmission structures look like?

The structures being planned for this 345-kV transmission line are single-pole steel structures that vary in height from about 120 feet to 170 feet, and have spans (or distance) between structures on an average of 1,000 feet. Structures for the most part will be set on foundations but may be embedded in the ground without foundations.

How much right of way will be required on either side of the line?

The voltage and the type of transmission structure being built determine the size of the right of way. For a 345-kV transmission line, the typical right of way is up to 150 feet wide or 75 feet on either side of the line. In some areas, Minnkota may request a larger ROW to facilitate construction.

What can impacted landowners expect in the form of compensation?

Compensation for an easement is based on several factors including the local market value of land, the calculated acreage required for the ROW, current land usage and an additional per pole payment. A Project right of way agent will prepare a specific estimate for each landowner during the final route selection process.

Landowners have the option of receiving a single sum payment for the easement or receiving payment in annual installments of equal amounts including interest on the outstanding balance. The interest paid by the utility will be at a rate equal to the average rate paid during that year by the Bank of North Dakota on a certificate of deposit in an amount equal to the outstanding balance. The first annual installments shall be prorated. The installment option is paid out over a maximum period of five years and does not apply to any easement providing for compensation of less than five thousand dollars. In the event the landowner elects to receive the compensation in annual payments, the benefits unpaid at the time of a sale of the real estate to which the easement attaches shall accrue to the purchaser of the real estate subject to the easement. The utility right of way agent shall inform the property owner of the owner's option to choose annual installments.

Will the new lines be safe?

Every effort is made to ensure safety during construction, operation and maintenance of transmission lines. Lines and line infrastructure are designed to withstand extreme weather conditions. Protective devices at line terminals stop the electricity flow under any abnormal operating circumstances. Utility practices meet or exceed standards set by national electric safety codes.

What about EMF?

Electric and magnetic fields (EMF) are created by anything that conducts electricity, including transmission lines, household appliances and business equipment. These fields are strongest closest to their source, so the farther away you are from the source, the less EMF reaches you. EMF exposure from transmission lines, which are high in the air and inside the negotiated easement, is minimal.

Decades of scientific and medical research, reviewed by science organizations and government agencies, have found no cause/effect evidence of threats to human health from EMF.

Why not build the new lines underground?

Minnkota is proposing overhead lines because of reliability and cost. Underground transmission lines generally cost up to 10 times as much as overhead lines; that's a cost impact customers cannot bear. The technology to build lines underground for long distances is also extremely difficult to manage. With overhead lines, air cools the lines and keeps them at a safe operating temperature. Underground

lines require cooling mechanisms, which increases cost and decreases reliability. Locating and repairing underground line failures also takes longer, leading to longer outages. The reactive losses of underground lines are substantially higher than overhead lines, and installation requires lengthy, disruptive construction techniques. Design concerns such as capacity and heat dissipation are frequent limitations. Underground systems are justified primarily in heavily populated downtown urban centers, where right of way is severely limited for overhead lines.

When will the lines be built?

Line construction is expected between 2011 and 2013 after a rigorous public process to determine need and routing. Schedules can change so Minnkota will publish meeting notices in newspapers and on this site. Please continue to check these resources for updated information.

How much will the lines cost? Will my bills go up?

The construction of the line and associated substations is currently estimated at $300 million. Adjusted costs for the Project will be passed on to the 11 distribution cooperatives served by Minnkota through a future wholesale rate structure. At this time, it is not known what the impact on individual cooperative member's rates might be. However, the building of the new line provides the lowest cost energy solution to meet the future needs of Minnkota and its consumers.

How close will the transmission line be to houses?

Minnkota is required to route the transmission line at least 500 feet from occupied houses. The 500-foot avoidance criteria may be waived by the owner of the occupied house if stated in writing. Avoidance criteria laws can be found in the "North Dakota Energy Conversion and Transmission Facility Siting Act (49-22-05.1)".

Will the project impact radio, television, cell phone, and GPS reception?

If interference occurs, Minnkota would work with the affected entity to correct the issue until reception is obtained. Typically, tightening loose hardware on the transmission line and appropriate modification of the receiving antenna system will resolve any interference problems.

What is the typical construction process for high-voltage transmission lines?

Once the permitting and design work are complete, structures are staked and reviewed with landowners to make sure the structures will be placed in a satisfactory location. After final pole locations are determined, typical construction follows the steps listed below. During construction, all heavy equipment used will be driven within the easement right of way.

Typical Transmission Line Construction Steps:

1. Construction begins with auguring the holes where the foundations will be set.
2. Once holes are completed, rebar cage, provides strength and support for concrete foundation, and anchor bolts, the attachment point for the steel structure, are set.
3. Then the concrete is poured and allowed to set for up to 28 days to achieve adequate strength of the concrete.
4. While the concrete is setting, steel structures are laid out near foundation and put together.
5. Once the structure is assembled and the concrete is set, the structure is lifted into place and set on the foundation.
6. With structures set, the wire is strung between poles.
7. The transmission line is completed, energized and the right of way is restored.

How will Minnkota minimize impacts to birds?

Minnkota will follow the transmission design guidelines set in Suggested Practices for Avian Protection on Power Line and Mitigating Bird Collisions with Power Lines (http://www.aplic.org/). The poles are constructed in a manner that reduces the potential for nest building on the tower and crossarms by not providing a flat parallel or perpendicular surface that would hold a nest. In addition, the phase wires are spaced further apart to reduce the likelihood of electrocution.

Minnkota will use bird flight diverters, where needed, to minimize bird collision with transmission lines and help protect species of birds within the project area. Bird flight diverters are used to make the line seem larger to flying birds, which helps them avoid collisions with the wires. When properly installed, bird flight diverters have proven to significantly reduce bird collisions and injury.