

Cranberry-Conover-Plains Electric Reliability Project

An update on projects to boost system reliability in north central and north eastern Wisconsin.

July 2007

ATC prepares for construction of transmission line Work on the first of four segments to begin in August

The electric transmission infrastructure serving northern Wisconsin and the western Upper Peninsula of Michigan is in need of reinforcement. Significant growth in the Rhinelander/Eagle River area has resulted in an overloaded system that is vulnerable to interruptions and even blackouts under severe conditions. The lines to the east that connect northern Wisconsin and the Upper Peninsula are the most severely constrained in ATC's system. The constraints limit ATC's ability to move power in and out of the Upper Peninsula, requiring higher-cost generators on the system to run more often, costing ATC customers million of

constructed substation (named Lakota Road) and Quinnesec, Mich.

"The congestion on the transmission lines to the east of Eagle River that connect northern Wisconsin to the Upper Peninsula are creating operational risks on our system," states Franc Fennessy, manager of ATC local relations. "Construction of this new line will be beneficial to homeowners, businesses and industries that depend on a reliable electric system."

ATC has undertaken a series of reliability projects in the Rhinelander area, and upgraded an existing transmission line

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dollars a year. In addition, there is limited ability to take these lines out of service for maintenance, resulting in reduced reliability and increased operating costs. ATC will build a new 138-kilovolt, 16-mile line between Eagle River and Conover, and convert to 138-kilovolt about 73 miles of existing 69-kilovolt lines between a newly

between Tomahawk and Rhinelander, called the Rhinelander Loop. The Cranberry-Conover-Plains projects will connect the Rhinelander/Eagle River area to the transmission system in the Upper Peninsula of Michigan, and will provide a comprehensive solution for improved reliability in the region.



On a similar project, workers string wires on the structures.

The new 16-mile transmission line will follow the route ATC recommended as its preferred route in its application to the PSC. The map inside details the route, but work will begin at the existing Cranberry Substation in Eagle River, where it will follow north along Adams Road, join Highway 45, and then turn east on CTH K and connect to the existing Conover Substation. The new Lakota Road Substation also will connect to the Cranberry-Conover transmission line.

Conover-Plains segments

This portion of the line construction is split into three segments.

Conover-Iron River – 30 miles

This segment of the line will be rebuilt from 69 kilovolts to 138 kilovolts on existing right-of-way. New single-pole steel structures and new wire will be used.

Iron River-Twin Falls – 36 miles

Structures will be replaced with single-pole steel structures in the existing right-of-way. Some of the structures are more than 90 years old. Several miles within this segment will continue to operate at 69 kilovolts. This line crosses the Wisconsin-Michigan border several times between Iron River and the Twin Falls Substation, north of Iron Mountain.

Twin Falls-Plains – 7 miles

The existing double-circuit structures are built to 138 kilovolts but are operated at 69 kilovolts. ATC will replace the 80-year old structures and string new wire along this portion, which is located entirely in Michigan.



Helping to keep the lights on

Everything we do at ATC is designed to ensure the reliable operation of the electric transmission system. ATC is a transmission-only utility that owns, operates, builds and maintains transmission facilities serving 5 million people in portions of Wisconsin, Michigan, Minnesota and Illinois.

Questions or comments?

Please call toll-free,
1-866-899-3204

Lee Meyerhofer, ext. 6572

In October 2005, ATC became the first utility to be accepted into Wisconsin's Green Tier program.



Administered by the Wisconsin DNR, Green Tier recognizes businesses and organizations that demonstrate superior environmental performance and continual improvement. For more information, visit our Web site at www.atcllc.com, or e-mail us at greenlines@atcllc.com.



What to expect

When construction begins this fall on the Cranberry-Conover portion of the project, crews will use drilling rigs and boring equipment along the route and then erect poles at heights between 70 and 80 feet. "We need to know the soil conditions and whether we're placing poles and underground facilities in soil or rocks," said Tom Schemm, ATC project manager. "The pole foundations can go as deep as 16 to 18 feet. Even the underground facilities will be about five feet deep."



Taken from another project where ATC buried transmission lines underground, this photo illustrates the type of work that will take place on the Cranberry-Conover segment of this project.

Underground construction – the basics

The PSC is responsible for determining when it is appropriate to put transmission lines underground. On the Cranberry-Conover segment, nearly 3.5 miles of transmission line will be placed underground. Less than one percent of ATC's 9,000-mile transmission network is located underground.

For the portion of the Cranberry-Conover line that will be constructed underground, equipment will be used to create a trench about five feet

deep, and several feet wide. Then, pipes and wires that will carry the electricity will be placed and the trench will be backfilled. Finally the area will be restored. During construction, some areas may require traffic controls to allow adequate space for equipment and crews.

For more information regarding underground transmission lines, visit our web site at www.atcllc.com, in the "Learn About" section of the site.

Click here for project maps for Cranberry-Conover-Plains Electric Reliability Project

TIMELINE

ATC conducts public outreach	Ongoing
PSC Approval	November 2006
Start of construction (Cranberry-Conover)	August 2007
Anticipated completion (Cranberry-Conover)	June 2008
Anticipated start of construction (Conover-Plains)	June 2008
Anticipated completion (Conover-Plains)	June 2010