

PUBLIC COMMENTS AND QUESTIONS

NORTH MADISON TO WAUNAKEE TRANSMISSION SYSTEM UPGRADE

American Transmission Co. is proposing new transmission line projects throughout Dane County. During the public open houses we held in Waunakee in June and September, we received many comments and questions from the more than 270 individuals who attended. Here are answers to many of the most common questions we've heard on the North Madison to Waunakee transmission system upgrade. Be assured that we stand ready to answer your questions and address your concerns throughout the process. The input and involvement you have provided in the past several months has been helpful in determining the best electric system solution.

What is the problem with the current electric system?

Portions of Middleton, Dane, Waunakee, Vienna, Westport and the northeast side of Madison are supported by a network of 69-kilovolt transmission lines that are used to near-maximum capacity during the peak summer season. They are projected to be overloaded in summer 2009, resulting in increased vulnerability to outages across northern Dane County. There also is only limited opportunity to take these lines out of service for maintenance, which further compromises reliability and increases operating costs. To maintain reliable electric service, new transmission facilities are needed.

Isn't this transmission line meant just to serve Madison?

No. Because there is no electric generation in Waunakee, power is delivered to the area by transmission lines from three directions: north, west and south.

While energy from the Columbia Power Plant near Portage serves much of the state, Waunakee also is served in part by the Blount Street Power Plant in Madison. In fact, power typically flows north into Waunakee from Madison on the existing 69-kilovolt transmission line, which was built in 1919. Because this and surrounding lines have limited capabilities, Waunakee is in the center of a larger geographic area

that is becoming increasingly vulnerable to widespread outages. The scenario in which this could happen is when a line becomes overloaded and/or fails in some way, the electricity automatically takes an alternative path. In the case of this area, no alternate path exists that can accommodate the additional power. This can result in a situation on the transmission network that is similar to blowing circuits in your home.

This project provides a stronger, redundant source of power for Waunakee and the surrounding areas and bolsters the transmission network, which will help prevent outages across northern Dane County in the near term. It also improves Waunakee's ability to increase power imports to meet local growth over the long term.

Has there been an independent review of the need for this project?

The Energy Initiative, a collaborative made up of Wisconsin utilities, public advocacy organizations, and environmental groups, evaluated the need for major new transmission lines in Dane County over the next 15 years. The EI analysis of the transmission system in Dane County through 2020 reveals a weak system that is becoming increasingly vulnerable to widespread outages for a variety of conditions.

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The EI concluded that a series of new transmission lines, including the North Madison to Waunakee project, are needed to maintain reliable electric service in broad areas including Waunakee. This project performed the best electrically of many options that were analyzed to address immediate problems in this area and is needed to prevent low voltages which can cause lights to dim, motors to stall, or harm to computers and other sensitive electric equipment. The EI report can be found online at www.energyinitiative.org.

Why can't you put the transmission line on the Interstate?

We consider many possible routes and corridors for these projects. We strive to develop transmission line routes that require the smallest amount of right-of-way and maximize electric system performance. Because the transmission line must connect to the Huiskamp Substation to achieve the reliability benefits of resolving the potential for system failures, the Interstate transmission line is too far away from the required end point of the new line to be a practical route.

Further, the use of the Interstate transmission line structures to accommodate a second line is complicated by the fact that this transmission line is a critical facility that cannot be taken out of service for construction without interrupting the electric service of many customers. Using the existing corridor area would require building a second line alongside it, further increasing the width of new right-of-way needed. Lastly, while we strive to use existing transmission line corridors where possible, placing numerous critical facilities along the same corridor increases an area's vulnerability to widespread outages in the event of a weather-related pole failure along the corridor.

Will any of the transmission lines be underground?

While many distribution lines are put underground, particularly in newer neighborhoods, almost all electric transmission line projects including this one are proposed as overhead for three general reasons: cost, environmental damage, and repair time. Underground lines are considerably more costly and invasive environmentally than overhead lines. During an outage,

damage to an overhead line can be located and repaired in hours or days rather than weeks or months for an underground line. For this reason, the Public Service Commission rarely supports or approves underground construction of transmission lines. This practice is consistent throughout the country. Less than 1 percent of ATC's 8,900 mile transmission network, which serves portions of Wisconsin and Michigan's Upper Peninsula, is underground.

Is this project compatible with the Waunakee Utilities' system?

The Waunakee Utilities will be able to utilize and benefit from the stronger source of electricity that the new project will bring. The need for expensive upgrades by the Waunakee Utilities was eliminated during our planning process earlier this year. We met with all of the affected local utilities, including Waunakee Utilities, MG&E and Alliant Energy to determine the total project costs and look for a least-cost solution. We determined that connecting at the Huiskamp Substation rather than the Waunakee system would reduce project costs by nearly \$10 million, due in part to eliminating costly upgrades at one or more Waunakee substations. The improvements we will make at the Huiskamp Substation include a transformer that will ensure voltage compatibility between the transmission upgrade and the local utilities' systems.

Is cost a factor in the projects you propose?

ATC is required to plan its projects on a least-cost basis, which means ensuring that low-cost solutions are identified and implemented. We look first at upgrading existing equipment before proposing new transmission lines. We work collaboratively with local utilities to determine whether lower-voltage solutions are effective. When necessary, new transmission line projects are designed to serve multiple purposes and reduce the number of projects needed in the future. For this reason, most projects are network reinforcements that typically provide both local and regional benefits. The North Madison to Waunakee project improves electric system reliability in Middleton, Dane, Vienna, Waunakee, Westport and the northeast side of Madison.

Are there feasible alternatives to building this line?

No. The EI evaluated whether new power plants including renewable forms of energy and conservation could meet energy needs in the area as an alternative to transmission lines. The EI concluded that a new transmission line will be needed in Dane County by 2009, with additional major projects needed by 2011 and every few years thereafter to keep pace with growth and prevent system failures.

Who decides whether the project is needed and where it is located?

Transmission line proposals such as this one must be authorized by the Public Service Commission of Wisconsin before they can be constructed. The PSC examines the need for the project, feasibility of alternatives, least-cost options for meeting need, and environmental impacts of the routes alternatives.

When will the PSC begin to review this proposal?

We expect to file a construction application with the PSC in January. The PSC conducts public hearings (expected in summer of 2006), where the comments (testimony) provided by individuals becomes part of the documentation from which the PSC makes its decision. The PSC determines the final route if the project is approved. ATC must present its system planning, engineering, environmental analysis and studies and community outreach efforts in its construction application to the PSC, and these materials will be publicly available on the PSC Web site, and at local libraries and municipal clerks' offices in the project area.

How will the new line affect my electric bill?

In general, the cost of transmission projects is included in monthly electric bills. The rates utilities charge are set at the federal and state levels. Transmission costs are between 4 and 7 percent of the electric bill. The majority of the electric bill covers generation, fuel costs, and distribution facilities. Increases in rates charged by the local electric utility must be approved by the PSC after conducting a regulatory review.

Are there health risks with living near power lines or substations? What is EMF and does it cause cancer?

It is a fact of life that we all are exposed to electric and magnetic fields. EMF is invisible fields of energy that exist around any device that carries or uses electricity. Power lines, household appliances and electric equipment, lighting and wiring all create fields. Electric fields are related to the presence of voltage, even when no current is flowing. Magnetic fields only are present when a current is carrying an electric charge through a wire or conductor. EMF field strength drops dramatically with distance. Because the strength of a magnetic field is a function of the amount of current present (amperage) rather than voltage, the magnetic fields from home products are comparable to those we find around utility equipment - and around countless other electricity-carrying sources. In other words, magnetic fields from power lines or electric utility equipment represent only a portion of an individual's overall exposure.

Comprehensive reviews of independent research on EMF exposure and possible health effects conducted over the past 20 years, including two large studies that looked at the body of research in its entirety, found that there is no consistent association between EMF exposure and health risks. Independent information can be found in the consumer section of the PSC Web site <http://psc.wi.gov>.

Does a power line affect property values?

Generally speaking, no. It is our experience that there is little, if any, diminution in value due to the location and operation of a transmission line. A recent study performed by the Electric Power Research Institute concluded: "...the results are mixed; in some cases small decreases in property value are associated with proximity to a transmission line; in other cases, there are no changes in property values, and in some cases, there are even increases in property values." Other features, such as proximity to schools, lot size, square footage and neighborhood characteristics may have a greater influence on the value of a property than the presence of a power line.

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Will you need to clear the trees on the north side of the railroad corridor in Waunakee?

No. The 69-kilovolt transmission line that parallels the railroad is on the south side of the tracks. If the route along the railroad tracks is selected for the project, we would rebuild the transmission poles on the south side to hold two sets of wires. We would also review the easement conditions to determine if any additional tree clearing is needed to ensure safe operation of the line.

How do you build transmission lines along areas where distribution poles already exist?

For this project we will use steel poles placed 400 to 600 feet apart to carry both the transmission line and the distribution line. Shorter poles are placed at the mid-point between the taller poles to support the distribution wires which are below the transmission wires.

What are your construction and restoration practices?

We identify environmental resources along the transmission line route and use construction practices that minimize impacts. For example, in environmentally sensitive areas, we typically construct during winter months when the ground is frozen and

disturbance to soils and sensitive plant and animal life can be minimized. When necessary, we use construction practices that reduce the spread of invasive species and transmittal of agricultural pests and diseases.

We also inspect lands after construction to assure proper restoration. While tall-growing trees and other vegetation may need to be removed so that they don't interfere with the safe operation of the transmission line, we encourage the presence of certain kinds of plants and low-growing trees in the transmission corridor. Visit our Web site or ask us for a planting guide outlining low-growing trees, shrubs, native grasses and perennial flowers that are compatible with transmission lines.

When will the next upgrade in the area be needed?

The EI identified two possible upgrades to existing transmission lines as needed in this area by 2015. These include adding a second line to the transmission line that runs from the Huiskamp Substation in the town of Westport to the Blount Street Substation, and increasing the capacity of the transmission line from the West Middleton Substation to the North Madison Substation in the town of Vienna.

