

# POWER LINES BRING RENEWABLE ENERGY INTO COMMUNITIES

## OVERVIEW

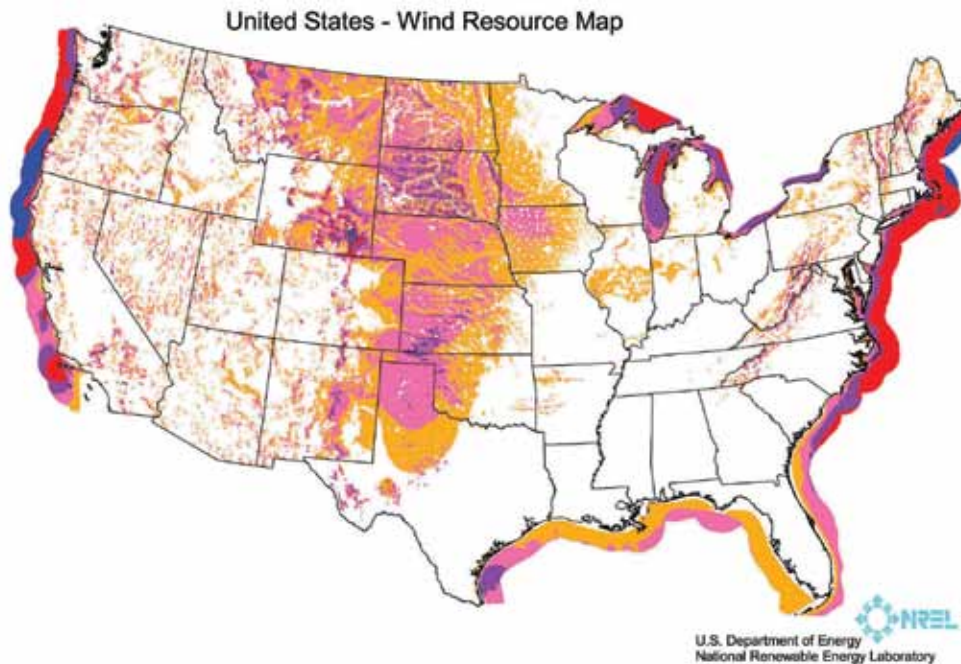
Demand for renewable power is growing. Growing societal sentiment for limiting use of carbon-based resources is prompting changes in state, regional and national energy policies. Currently, more than 30 states have required utilities to produce or purchase a greater portion of their electricity from renewable energy sources. Some of these changes represent dramatic increases over prior standards and will, by necessity, require expanded transmission line capacity across the Midwest region.

## MIDWESTERN STATES' RENEWABLE ELECTRICITY REQUIREMENTS

Wisconsin.....	10% by 2015	Missouri.....	15% by 2021
Illinois.....	25% by 2025	Iowa.....	105 megawatts
Minnesota.....	25% by 2025		

## HELPING STATES MEET RENEWABLE ENERGY GOALS

Wind generation is leading the way in renewable energy development. Nationally, wind power has experienced phenomenal growth, increasing from 2,200 megawatts in 1999 to more than 35,000 megawatts of wind power capacity in 2009. The Midwest region has some of the richest renewable wind potential in the U.S., and harvesting this Midwestern wind potential and bringing the resulting electric generation to market requires an upgrade to the transmission system in the heart of the nation. The need for transmission that can help deliver renewable energy and address reliability issues has been identified in several regional studies, including the Strategic Midwest Area Transmission Study and Midwest ISO Regional Generation Outlet Study. Transmission is needed because investing in renewable resources to the west, in the nation's wind alley, instead of in areas with lower quality wind resources, is more efficient due to higher availability of wind, and that translates into hundreds of millions of dollars in potential savings.



ATC is participating in several regional planning efforts to ensure the transmission system can deliver the energy needed to meet states' renewable goals while also addressing reliability issues in the Midwest.





## **RENEWABLE ENERGY GENERATION DIFFERS FROM TRADITIONAL GENERATION**

Establishing renewable generation is very different than traditional coal or nuclear plants. Traditional generation is typically built near existing transmission facilities and railways that bring the fuel to the generator. Renewable generation is located where wind, solar, or water power resources are abundant, and sufficient space exists to harness them. These sites are often in remote locations with site-specific resources, far away from population centers with well-developed transportation and electric transmission infrastructure. Once a location for a renewable-generating facility is identified, a plan to connect the generation to the long-distance transmission grid must be developed.

## **ATC LINKS ELECTRIC GENERATION TO THE TRANSMISSION GRID**

ATC owns and operates the system of structures and wires that carry electricity at high voltages over long distances from power plants to local distribution facilities within the eastern two-thirds of Wisconsin, the Upper Peninsula of Michigan, and portions of Minnesota and Illinois. When a new generation facility is proposed, ATC works closely with developers to ensure that transmission interconnections and improvements are made to accommodate the electricity that is produced. ATC also is a liaison between the customer and the Midwest Independent Transmission System Operator. At ATC, we are committed to protecting the health and safety of the public, and to providing safe, reliable electric service.

## **WIND ENERGY PROJECTS IN WISCONSIN**

Although Wisconsin has few wind alleys and comparably lower wind speeds, advances in technology make it possible to efficiently harness Wisconsin winds. ATC has put more than 400 megawatts of wind on the wires, and is in the process of connecting to an additional 800 megawatts of wind generating capacity in Brown, Columbia, Lafayette, Calumet and Fond du Lac counties – enough to power approximately 220,000 homes. These projects are expected to be on line between 2011 to 2013, depending on the project. Additionally, more than 1,000 megawatts of wind projects are under study in the ATC service territory.



ATC is a Green Tier company, selected by the Wisconsin DNR for demonstrating superior environmental performance and continual improvement.

*Information current as of 9.21.2010*



[www.atcinc.com](http://www.atcinc.com)