

Energy 2015 Overview

As a community energy company, Madison Gas and Electric (MGE) has a responsibility to plan and provide a reliable, affordable energy supply that balances the needs and values of our customers. Our 10-year Energy 2015 plan represents the next steps we are taking to ensure a dependable and environmentally responsible energy supply for tomorrow.

Energy 2015 came to fruition after we heard from our customers at more than 20 meetings, called Community Energy Conversations, held in 2004 and 2005. Energy 2015 reflects our best balance of options to respond to the variety of needs, values and concerns of the customers and communities we serve.

Early success

MGE has met the major goals of its Energy 2015 plan five years ahead of schedule:

- Discontinue coal at Blount Generating Station. Natural gas has become the primary fuel at Blount. We are on schedule to discontinue coal by the end of 2011.
- Secure energy from new, cleaner coal resources to ensure an affordable, reliable supply mix. In February 2010, MGE began receiving energy from a new, cleaner coal facility at the Oak Creek Power Plant.
- More renewable resources. Today we have 12 times the wind capacity as 2005, and four times more solar capacity than 2007.
- Increased energy efficiency and conservation. Our energy efficiency programs and conservation by our customers have saved enough power, 423,000 megawatt-hours (MWh), to supply the UW-Madison campus for one year.

Specific initiatives details

Discontinue burning coal at Blount and secure replacement energy.

Blount can operate on coal and natural gas. In 2010, MGE switched to natural gas as the primary fuel source, with coal as the secondary fuel. Coal will be discontinued by the end of 2011.

In addition to replacing Blount's coal-fired electricity, in February 2010 MGE began receiving energy from the Oak Creek Power Plant. The facility has state-of-the-art emissions controls. MGE has a 100-megawatt (MW) interest in Oak Creek.

Renewable resources

Our original Energy 2015 plan was to grow wind capacity by five to 10 times and expand solar capacity. We currently have 12 times the wind capacity as 2005 and four times the solar capacity since 2007. Our wind capacity has grown from 11 to 137 MW and our solar capacity from 80 to 418 kilowatts.

Our wind resources include:

- MGE's 11-MW wind farm in Kewaunee County, Wis., built in 1999.
- MGE's 30-MW wind farm in north-central Iowa online since 2008.
- 96 MW of purchased wind power from:
 - A wind development in north-central Iowa (30 MW).
 - The Endeavor II Wind Energy Center in northwest Iowa (50 MW).
 - The Forward Energy Center in Dodge and Fond du Lac counties in Wisconsin (16 MW).

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The additional wind energy helps support Green Power Tomorrow, MGE's expanded green pricing program. With approximately 10% of our residential customers buying clean energy from Green Power Tomorrow, MGE has the second highest green pricing participation rate of all investor-owned utilities in the country. MGE also increased by seven times the amount of solar energy on its system.

Demonstrate new technologies

MGE continues to demonstrate and test new technologies for producing energy. For example, MGE is:

- Installing a public network of electric vehicle charging stations in MGE's service area. The interconnect system is the first of its kind in the United States. MGE's first charging stations will help us learn about our customers' usage patterns and demands as auto manufacturers begin to introduce plug-in electric vehicles.
- Installing 25 in-home advanced meters for plug-in hybrid electric vehicles. The home meters will tell us how much energy is used compared to regular home usage.
- Checking the feasibility of using an urban wind turbine to provide renewable energy for customers.
- Learning which solar technologies are most effective. We track production from more than a dozen solar photovoltaic demonstrations in our service area.

Increase energy efficiency and conservation

Energy efficiency programs and conservation by customers have saved 423,000 MWh of electricity since 2005. Electric use per customer is more efficient today than when Energy 2015 started in 2006. The company's Power Tomorrow program reached all of our customers with energy efficiency advice and offered workshops. In addition, mge.com has energy efficiency information and allows customers to track their energy use.

Offer customer choice

Our successful Green Power Tomorrow program offers electric customers renewable energy to buy. Customers who voluntarily participate pay a premium of 1.25¢ per kilowatt-hour. MGE also introduced a pilot solar buyback program, Clean Power Partners, to encourage customers to install photovoltaic systems on their homes or businesses. Customers who install qualifying systems can sell their solar energy to MGE for \$0.25 per kilowatt-hour.