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## Power Sources

MGE generates and distributes electricity to approximately 179,000 customers. MGE owns generation units or purchases electricity through contracts and from the Midcontinent Independent System Operator (MISO) energy market.

### Generation

#### West Campus Cogeneration Facility

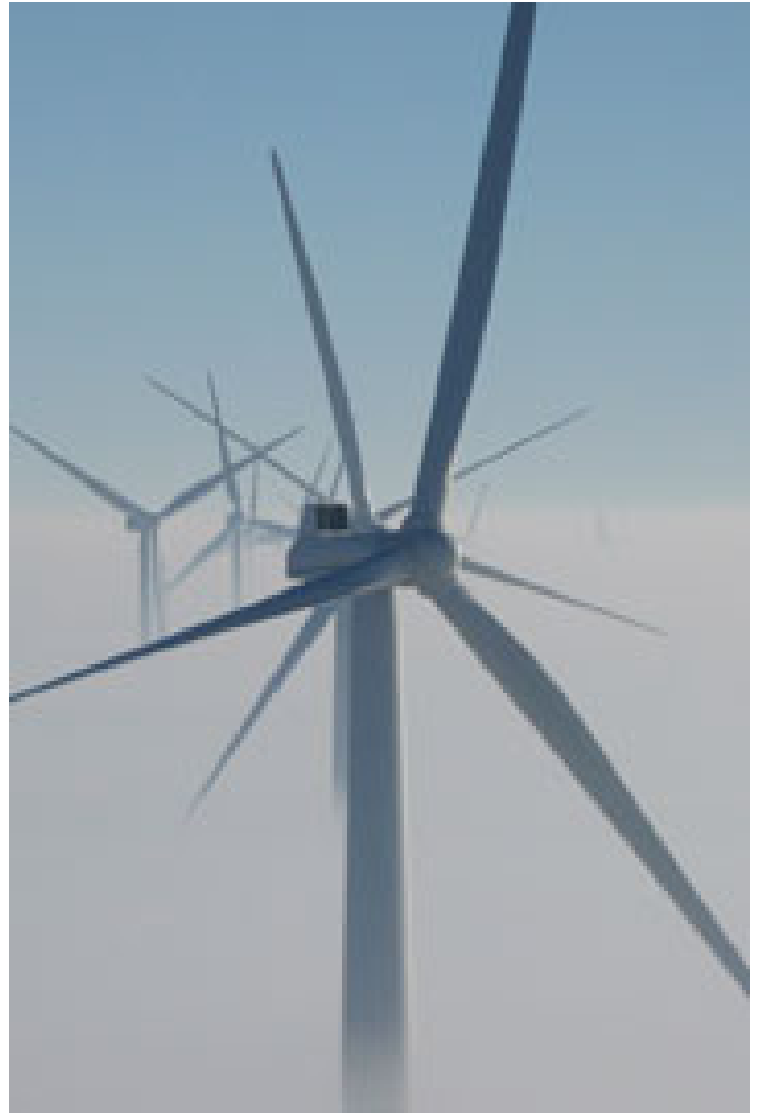
- This 150-megawatt (MW) natural gas-fired facility provides electricity to MGE customers and steam heat and chilled-water air-conditioning to the UW-Madison campus.
- Through the efficiency of cogeneration and emission controls, it is one of the cleanest power plants in the Midwest.
- The facility, jointly owned by MGE and the State of Wisconsin, began operation in spring 2005.

[Learn more](#)



## Wind Farms

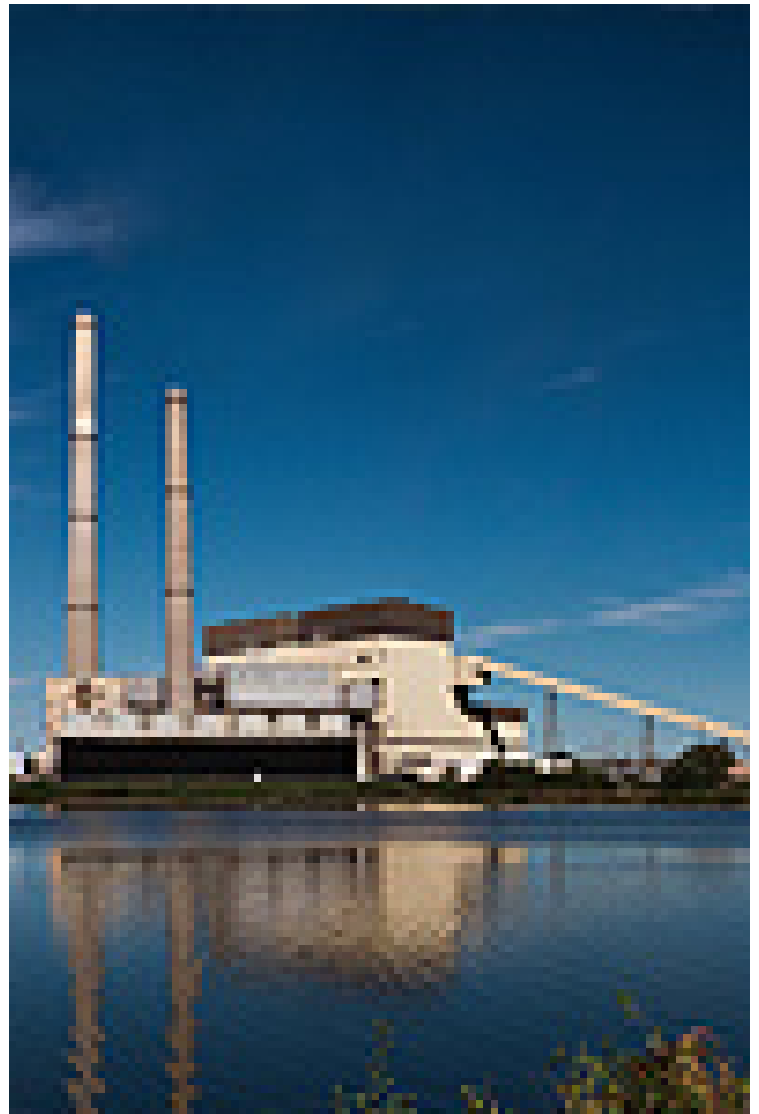
- MGE has wind energy capacity of 153 MW.
- MGE [wind farms](#):
  - Rosiere: An 11-MW wind farm in Kewaunee County, Wis., that began operation in 1999.
  - Top of Iowa 3: A 30-MW wind farm in Kensett, Iowa, that came online in early 2008.
  - Forward Energy Center: The 130-MW wind farm is owned by MGE, Alliant Energy and Wisconsin Public Service Corp. It was built in 2008 in Dodge and Fond du Lac Counties, Wis.
  - Saratoga: A 66-MW wind farm in Saratoga, Iowa, that came online in February 2019.
- In addition, MGE purchases wind capacity from the 80-MW Top of Iowa wind farm in Worth County, Iowa.
- In early 2022, MGE obtained regulatory approval to purchase a 9.1 MW share of the [Red Barn Wind Farm](#) to be built in Grant County.



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## Columbia Energy Center

- MGE is a minority owner of the Columbia Energy Center near Portage, Wis. MGE co-owns the power plant with Wisconsin Public Service and Alliant Energy.
- The co-owners of the power plant expect its full retirement by June 2026.
- Built in the early 1970s, the approximately 1,100-MW facility has two coal-fired units.
- Alliant Energy is the operating utility.



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## Blount Generating Station

- MGE owns and operates the 100-MW Blount plant in central Madison. The original plant was built in 1902 and expanded several times.
- The plant operates on natural gas.
- Under MGE's Energy 2015 plan, Blount discontinued burning coal at the end of 2011.

[Learn more](#)



### Elm Road Generating Station at Oak Creek

- MGE is part owner of the Elm Road Generating Station at the Oak Creek Power Plant located in Oak Creek, Wis., along with We Energies and Wisconsin Public Power Inc.
- Unit 1 began operation in February 2010 and Unit 2 in January 2011. The units produce a total of 1,230 MW.
- MGE receives a total of 100 MW from the plant—50 MW from each unit.
- In late 2021, MGE, as a minority owner, and the other co-owners of Elm Road announced the eventual transition of the coal-fired plant to natural gas. By the end of 2030, MGE expects coal to be used only as a backup fuel, and we expect the elimination of coal as a fuel source at Elm Road by the end of 2035.



## Solar

MGE continues to grow its solar capacity, which includes:

- Photovoltaic installations owned by MGE including nearly [500 solar panels at MGE's headquarters](#) that supply almost 10% of the building's annual electric needs.
- Customer-owned solar that is connected to our grid.
- MGE's [Shared Solar](#) installations on the roof of the City of Middleton Municipal Operations Center and at the Middleton Municipal Airport.
- 50 MW from the Two Creeks Solar array, co-owned with Wisconsin Public Service Corp., in Manitowoc County.
- 9 MW from the solar array at the [Dane County Regional Airport](#), a partnership through MGE's innovative [Renewable Energy Rider](#) program, that supplies Dane County with about 40% of the electricity used by County-owned facilities.

- 20 MW from the [O'Brien Solar Fields](#) in the City of Fitchburg. The array serves several large customers under MGE's Renewable Energy Rider program.
- 50 MW from the [Badger Hollow Solar Farm](#) in Iowa County.
- 8 MW from the [Hernsdorf Solar Fields](#), which serves the City of Madison and the Madison Metropolitan School District under MGE's Renewable Energy Rider program.

Additional [solar projects](#) are currently under construction.



## Combustion Turbines

- MGE's electric system includes five combustion turbines located at three Madison-area substations. These units are used to provide system reliability, especially in times of heavy electric use.
- MGE owns and operates a natural gas-fired generator near Marinette, Wis. The 83-MW unit began operation in June 2000. MGE operates the unit from its headquarters in Madison.



## Backup Generation

- MGE owns and operates 57 backup generators located at business customers' sites. The total capacity of these units is about 54 MW.
- Customers pay a monthly fee to have this generation available if power is interrupted.
- MGE also can use these units to boost system reliability during an electrical emergency.



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## Purchased Power

- MGE buys power from other utilities through contracts and from the MISO energy market.
- The power is delivered over the transmission lines that serve our area.





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