

## Dane County working to become a national leader in renewable energy

Madison officials work toward renewable energy

By:

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Ten years ago, no one would have predicted that the price of solar energy would drop 75 to 85 percent, or wind energy 66 percent — suddenly making solar and wind cheaper than coal when utilities need to purchase more power. Or that Dane County’s government operations would stumble into “100 percent renewable energy” — creating more energy than the county is pulling from the grid — due in large part to harnessing the county landfill’s methane to produce natural gas. In 2017, Madison became the first Wisconsin city (and the 25th in the nation) to formally commit to 100 percent renewable energy, and now groups such as the city’s Sustainable Madison Committee and Dane County’s Council on Climate Change are working with consultants, utilities, businesses, nonprofits and citizens to go completely green. According to those involved, this is not some utopian liberal Madison goal — it makes the most fiscal sense for taxpayers and the timing has never been better.

“Because the price is coming down so much, it is becoming literally impossible to argue against solar and wind,” says Jeanne Hoffman, who staffs the Sustainable Madison Committee, a group of alders and citizens responsible for the city’s 2011 Sustainability Plan and now tasked with implementing the 100 percent renewable energy resolution. Hoffman, facilities and sustainability manager, calls the dramatic drop in solar and wind energy costs “nothing short of miraculous.”

“The energy transformation is happening right now,” says Hoffman. “I just hope the region recognizes what’s happening and we all get to work, because I think this area has the potential to really be a national leader.”

### Coal Dependence

One of the biggest roadblocks, according to Mitch Brey of citizen group RePower Madison, is the region’s ongoing reliance on coal. In Wisconsin, where energy is primarily regulated by the state Public Service Commission, investor-owned utilities such as Madison Gas and Electric and Alliant Energy have a monopoly. Brey says MGE is not only still nearly 62 percent coal-reliant, when factoring in electricity purchased from burning coal (MGE says only 48 percent of its sources are “coal-fired generation”) but has further strengthened its investment by acquiring minority ownership stakes in two coal plants, Elm Road near Milwaukee and Columbia in Portage.

“Elm Road was built in the last 10 years at a cost of over \$2 billion. It was the most expensive construction project in the state, ever, built at a time when we don’t need to be burning any more coal,” says Brey. He praises several MGE initiatives as “hopeful” and “notable,” including a recently announced goal to reduce greenhouse-

6/5/2019 already achieved by switching from coal to natural gas on Blount Street in 2005. Breyer says MGE as the utility remains invested in these plants, "You've got to recoup all those costs, and [probably] the only way to do it is to run them for a couple more decades," says Brey.

Steve Schultz, MGE's corporate communications manager, says the energy world is rapidly changing as a result of new technologies that improve energy generation and efficiency. MGE was already committed to reducing carbon emissions by at least 40 percent by 2030 before announcing, in March, that it intended to reduce emissions by 80 percent by 2050. "And if we can go further, faster," says Schultz. "We will."

To get there, MGE is investing in a new 66-megawatt Saratoga Wind Farm in Iowa, and has purchased a share of the Forward Wind Energy Center in Wisconsin. Combined, these investments will grow MGE-owned wind by more than 200 percent. The utility is also seeking a 100-megawatt share of two new large-scale Wisconsin solar projects, which would provide enough energy to serve about 33,000 households. MGE's website Energy2030together.com tracks a roster of initiatives aimed at both consumers and businesses, including partnerships with municipalities to electrify city buses — an initiative that involves installing public charging stations powered by wind and enrolling consumers who want to remotely manage their energy use in the Smart Thermostat Demand Response program.

"The cities and counties can move pretty quickly," says Tyler Huebner, executive director of RENEW Wisconsin, a statewide nonprofit that's been advocating for the advancement of renewable energy since 1991. "For the utilities, though, it's a different story. They build big power plants amortized over 40 years or more, so it's much harder for them to be nimble." He says RENEW Wisconsin "really appreciates" what MGE has done over the past three years.

At the consumer level, Huebner says wind power is still out of range for most families — but solar is more accessible than ever, particularly with tax breaks. The typical residential roof can provide 50 to 100 percent of a family's electricity needs for the year, and what used to take 25 years to pay back now takes about 10. Over the past two years, with a city of Madison contract, RENEW Wisconsin has helped install residential solar panels on 80 area homes.

Best of all, Huebner says, the environment is depoliticizing around renewable energy. "As the costs have come down, it becomes much less about your belief system and much more about common sense."

## **Sending Billions Out of State**

One of the most compelling motivations for converting to renewable energy is that Wisconsin sends \$15.7 billion out of the state every year to purchase coal, oil and natural gas.

"When you think about coal-fired power plants, there is absolutely no benefit to people living in Wisconsin," says Dane County Executive Joe Parisi, who in 2017 created the county's first-ever Office of Climate Change, helmed by Keith Reopelle, and the Dane County Climate Change Council. "We have local contractors and electricians and installers putting these projects together, so the dollars we invest stay in Dane County and Wisconsin."

Renewable energy is also critical to attracting the likes of Facebook, Google, Microsoft and Apple, all of which have built data centers in Iowa because that state now sources 35 percent of its electricity from wind.

"As a state, we've fallen behind," says Reopelle. "But as a county and a community here locally, we're doing all we can to attract these businesses and double down on our investment in clean energy."

Dane County installed more than \$2-million worth of solar projects on existing county-owned buildings in 2017. In 2018 it issued a request for proposals to develop an eight-megawatt solar farm on 40 acres of land at the airport. This would increase current solar capacity by 13 times — the equivalent of 1,700 cars removed from the road each year. Two manure biodigesters on farms in Springfield and Vienna not only reduce methane emissions and lake-damaging phosphorus, they each produce two megawatts a year, which is enough clean energy to power 2,500 homes and eliminate 4,500 cars' worth of carbon emissions.

6/5/2018 But one of the most promising renewable energy projects is the Dane County landfill. For the past 20 years, the county has contracted with MGE to capture and compress methane into clean energy at the site. (Some of this biogas now powers vehicles in Dane County's fleet — picture Doc Brown and his banana peel-fueled DeLorean at the end of "Back to the Future.") When that contract is up in 2019, the county will save even more by selling to ANR Pipeline Co., which operates an interstate pipeline that crisscrosses the country to California and happens to run directly by the landfill.

"We can tackle this climate change issue," says Parisi. "We can create more clean-energy jobs across the nation. We can leave a legacy for our kids so they're not going to look at us, 20 years down the road, and say, 'You guys saw this coming. Why didn't you do anything about it?' We're doing something about it in Dane County."

*Maggie Ginsberg is senior contributing writer for Madison Magazine.*

## Promising Projects

While the Sustainable Madison Committee strategizes with consultants to develop the city's resolution on its 100 percent renewable goal, Jeanne Hoffman says there are programs available right now and initiatives that are already working.

MadiSUN Solar Energy Program allows the city of Madison to broker a group buy from solar installers. Homeowners who opt in get a price break on solar panels, and local contractors get customers. "All these companies are hiring electricians and solar installers," says Hoffman. "It's an area of economic development that is growing by leaps and bounds, and it's homegrown." 2018 is the third consecutive year the city will facilitate the MadiSUN Group Buy for Homes, which has led to 80 homes installing solar in the past two years. The city is also launching a new Solar Business Program for 2018 to encourage more businesses to install solar power.

It also piloted the GreenPower Solar Installer Training Program in 2016, a six-month paid job training program for solar projects.

Sustain Dane's MPower Madison is a one-year, customizable program for businesses that want to reduce their environmental impact. This national model is sponsored locally by the city of Madison, MGE and other grants and sponsors, and 78 Madison-area businesses are already involved in the program.

Hoffman points to two Madison Gas and Electric pilot programs, one for businesses and one for consumers. The Shared Solar Program is currently wait-listed, but it allows non-homeowners (or residents for whom solar panels are not feasible) to draw from solar energy through a community solar installation. MGE's Renewable Energy Rider program allows businesses to work toward 100 percent renewable energy by constructing large-scale solar projects off-site.

The city of Madison and MGE are working to power 50 percent of Madison Metro Transit buses by electricity by 2035. With the help of a \$1.3 million federal grant, the city has budgeted an additional \$1.5 million to buy three battery-powered buses in 2019.

There are also tax incentives and rebates, such as Focus on Energy, which partners with 108 Wisconsin utilities to provide energy-saving strategies for homeowners and businesses, and Summit Credit Union now offers energy-efficiency loans, including for MadiSUN Solar Energy Program participants.

RePower Madison curates a list of city of Madison energy programs and plans on its website, as well as an MGE Energy Report Card and other data and resources.

The Sustainable Madison Committee is open to the public and meets the fourth Monday of every month. Follow its progress at [madison100renewableenergy.com](http://madison100renewableenergy.com).