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The impending closure of the Presque Isle power plant in Marquette, Michigan is one of the factors prompting a shakeup of the Upper Peninsula's electric supply.

Upper Peninsula groups see a bigger role for solar, efficiency

Andy Balaskovitz | 3 hours ago

Michigan regulators' approval of gas units to replacing an aging coal plant was a setback for Upper Peninsula clean energy groups, but advocates still see opportunities to expand solar and efficiency.

Clean energy advocates in Michigan's Upper Peninsula are regrouping and still see a role for renewables and efficiency despite having their arguments dismissed last year with the approval of two new natural gas plants in the region.

A mix of renewables, energy efficiency and demand response could have been a hedge against fluctuations in natural gas prices, clean energy groups argued, but in October the Michigan Public Service Commission concluded (<http://www.michigan.gov/lara/0,4601,7-154--450695--,00.html>) a pair of gas units near Marquette was the most reliable and cost-effective way to replace the aging, coal-fired Presque Isle plant. The gas units will total 183 megawatts and come online in 2019.

With the immediate need (<http://midwestenergynews.com/2014/10/06/michigans-u-p-goes-head-to-head-with-its-energy-future/>) for new generation off the table, the financial case for adding utility-scale renewable energy in the region becomes more challenging.

But there's still a path, some say.

"There are lots of ways that emerging technology like storage, distributed resources and renewables can help an area that's uniquely situated like the U.P.," said Margrethe Kearney, staff attorney with the Environmental Law and Policy Center. "We need to keep looking at what can be done to improve the situation up there."

Since October, multiple projects have been exploring the potential for efficiency and demand response. Private developers have proposed utility-scale wind and solar projects. And the region's high electricity rates make residential solar projects a financially viable option for many customers looking to lower their bills.

Untapped efficiency

The most immediate benefit to ratepayers could come through energy efficiency, where officials still see plenty of low-hanging fruit. While some efforts are funded by foundations and state and federal agencies, ratepayer-funded programs also lead to avoided energy costs (<http://www.michigan.gov/mpsc/0,4639,7-159-52495---,00.html>) for ratepayers.

The Superior Watershed Partnership and Land Trust is working with local governments, developers and community foundations to develop a “plan for a clean energy future,” said Emily Goodman, Superior Watershed’s Great Lakes Conservation Corps coordinator.

Superior Watershed’s grant-funded “roadmap” includes energy efficiency opportunities in households and through utility on-bill financing programs, Goodman said, adding that the Presque Isle plant’s closing kicked off the effort.

“Our energy system is changing and if we don’t act now we’re going to miss the wave,” said Goodman, who also oversees an Energy Conservation Corps program that does home energy audits and weatherization projects. Its first goal is to reach 200 to 300 homes, Goodman said.

A similar two-year energy efficiency effort (<http://www.uppermichiganssource.com/content/news/Houghton-Energy-Efficiency-Team-Initiative-heating-up-as-weather-cools-396160871.html>) in the Keweenaw Peninsula was part of the Georgetown University Energy Prize that sought to directly lower bills through weatherization, appliance replacement and expanding energy literacy.

Public Sector Consultants, a Lansing firm, is using state grant funding to study the Upper Peninsula’s energy-efficiency potential and find ways to better coordinate utility programs to maximize savings.

“The energy waste reduction opportunities are huge. More than the Lower Peninsula,” Michigan Agency for Energy Director Valerie Brader told *Midwest Energy News* earlier this month.

Solar potential

At least three private developers are in various stages of large-scale renewable generation projects. Municipal utilities in Marquette (<https://mblp.org/news/solar-project>) and Escanaba (<http://www.dailypress.net/news/local-news/2018/01/esky-gives-ok-for-solar-energy-bids/>) have launched or are pursuing smaller-scale solar projects.

Solar is most likely to be the preferred generation choice, based on the difficulty of developing wind in the region due to environmental and siting concerns, Goodman said. The Upper Peninsula’s only operating wind project has been involved in litigation since (<http://midwestenergynews.com/2018/01/12/michigan-landowners-long-shot-lawsuit-has-high-stakes-for-wind-industry/>) 2015, though the developer is looking to scale that project up. A subsidiary of Renewable Energy Systems is also pursuing a 30- to 50-turbine project (<http://www.uppermichiganssource.com/content/news/RES-proposes-wind-turbines-in-LAnse-467030253.html>) west of Marquette.

Near Marquette, developers have plans (<http://www.ironmountaindailynews.com/news/local-news/2017/04/solar-farm-proposed-near-sawyer/>) for a 100-megawatt solar project. A draft report (http://www.michigan.gov/energy/0,4580,7-230-72048_72070-450941--,00.html) last year indicated potential for 100 megawatts of generation in the eastern Upper Peninsula, which would cost less than new transmission between the Upper Peninsula and Ontario or the Lower Peninsula. Kearney said regulators’ recent action (<http://midwestenergynews.com/2017/11/28/advocates-say-solar-poised-for-growth-under-latest-regulatory-changes-in-michigan/>) on setting “avoided costs” for independent renewable generators could also spur projects. UMERC does not have plans to build more renewables in the rest of its Upper Peninsula territory as part of its 15 percent renewable energy mandate by 2021,

filings show (http://www.uppermichiganenergy.com/rates/2017renewable-energy-plan_U-18236.pdf). It plans to meet its renewable portfolio requirement with renewable energy credits (RECs) from existing sources.

“While we believe it’s important to have a diverse energy mix that includes renewables, at this time our focus remains on implementing the generation solution that the (MPSC) approved to ensure reliable energy for the region,” UMERC (<http://www.uppermichiganenergy.com/generation/proposed-generation.htm>) spokesperson Amy Jahns said.

Challenges for private developers involve finding off-takers to buy new generation at prices competitive with existing contracts. Costly transmission also remains a challenge across the sparsely populated Upper Peninsula.

Joshua Pearce, an engineering professor at Michigan Technological University, said he is still optimistic about private renewable energy development, particularly as large energy users and corporations are increasingly interested in renewables.

“It may actually spur such development here as large- and medium-scale electricity users look for electricity bill relief,” he said. “How this will work with the existing utilities in the U.P. is going to be interesting over the next few years.”

Robert Handler, an organizer with Keweenaw Climate Community, said opportunities exist “with the right mix of technology support.” That would include lifting a state cap on net-metering participants and requiring utilities to build community solar projects.

Self-sufficiency

The Upper Peninsula’s energy future should be decided at the local level, say those involved. There is skepticism toward plans that are perceived to come from the top-down, or in this case, from Lansing-north.

“We want to try and influence it as much as we can without outside sources having an overbearing hand on it,” Goodman said. “That’s the main thing we’re trying to do: Have a U.P.-led approach.”

Pearce has published research (<http://midwestenergynews.com/2016/06/14/net-metering-changes-could-drive-people-off-grid-michigan-researchers-say/>) on the relatively high costs of electricity in the Upper Peninsula potentially driving customers off the grid. Upper Peninsula Power Co. is the only utility in Michigan that has reached its cap on solar net metering customers. UPPCO, which has about 52,000 customers, also has the [highest residential electric rates](http://www.michigan.gov/documents/mpsc/rates1_594951_7.pdf) (http://www.michigan.gov/documents/mpsc/rates1_594951_7.pdf) in the state.

“Grid defection is now technically feasible with a combination of combined heat and power, solar photovoltaic systems and batteries,” Pearce said. “This means that everyone that is not allowed to put in a net metered solar system should take a hard look at ending their relationship with their electric utility.”

Pearce adds that grid defection could raise costs for those still on the grid, encouraging more defection. It’s unclear what impact the state’s requirement to replace net metering with a new distributed generation program will have.

“Much better to let lower cost solar on the grid to reduce the need for the new plants without the need for massive electric utility investment,” he said.

State officials praised the course the Upper Peninsula is now on following years of debate about the Presque Isle plant closure. The efficiency study and Superior Watershed clean energy project will continue through 2018, as will efforts to improve energy literacy among residents.

Brader, who is resigning her position with the state to join the private sector next month, said the Upper Peninsula is on a “really firm footing to set its own energy future” that’s more affordable, reliable and “environmentally protective” than it was five to seven years ago when she joined the administration.

"I just feel people of the U.P. have a much brighter energy future that they have much more control over," Brader said.
