Melissa Sweet

Energy 2/24/21

From: William Pelak <williampelak@yahoo.com>
Sent: Saturday, February 20, 2021 8:38 AM

To: Melissa Sweet; Rep. Joseph Bellino, Jr. (District 17)

Subject: 36% Capacity Factor no matter how many Don Quixote cases after?

It all sounds so promising the promise of cheap renewable clean energy until you ask the serious questions about dependability, costs passed on to customers, life expectancy, recycling worn out units, backup systems, overall ROE. None of these questions have been adequately addressed. The political talking points about solar & wind failed to spare millions of Texans from the onslaught of mother natures surprises that brought the great state to its knees.

I have been a Michigander for 72 years never really thought about leaving the state but with the chaos of poor government oversight regarding a sound structured long term energy plan that won't break my bank or darken my home, the prospect of living out the remainder of my years here continues to dim.

I live by facts not fiction so when government fails to follow the facts we all suffer as Don Quixote rides his old nag chasing windmills hoping no one will question the sanity of it all.

Please enter this letter in the House Energy Standing Committee Meeting minutes to be recorded on the record.

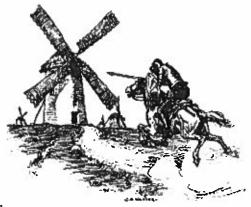
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I hope the committee has read

this: https://www.michigan.gov/documents/mpsc/2019 Feb 15 Report PA 295 Renewable Energy 646445 7.pdf

Consumers Energy would have to double the number of wind turbines currently operating in this state to replace the electricity produced by just one of the coaland gas-fired power plants it intends to close as part of its plans to rely more on renewable those additional turbines only spin about one-third of the time, leaving

a big energy gap for the households and businesses that rely on the company for



their electricity. sources.

Compare that to the Dan E. Karn generation plant in Bay County, which Consumers Energy plans shut down by 2032. Its four coal and two natural gas burners can produce up to 1,946.3 megawatts regardless of wind or weather.

Because the wind only blows intermittently, wind turbines in Michigan have a 36% capacity factor. That is, they can produce 1,925.3 megawatts of electricity just 36% of the time, on average. This means that, theoretically, it would require building another 2,162 wind turbines to replace the Karn coal plant.

But even that would not meet the need, because there is not enough variation in weather across Michigan to ensure that if turbine blades aren't spinning in one area, they will do so elsewhere. When the blades are not spinning, Michigan's utilities and the customers who rely on them would have to hope that utilities in other states have extra power available to sell at reasonable rates.

Coal-fired generators provided 37% of Michigan's net electricity generation in 2018, according to the federal Energy Information Administration. Renewable sources provided 8%, with more than half of that coming from wind turbines.

Consumers Energy retired seven of its coal-fired generation plants in 2016. In June, the company <u>announced</u> it was closing the two coal-fired units at the Karn plant as of 2023.

This story depends on an analysis done by Jason Hayes, the director of environmental policy at the Mackinac Center for Public Policy.

Consumers Energy recently put representatives on tour around Michigan to promote the company's plans to rely on intermittent renewable sources for 90% of the electricity its customers need by 2040.

Michigan's law regulating regional electric monopolies like Consumers Energy and DTE Energy guarantees them a return of around 10% on all their operations. Those operations include tearing down existing power plants and replacing them with new facilities, including renewable source generators.