Michigan legislators should pursue the lower-cost decarbonization option

By Jason Hayes

Michigan is unique in many ways, perhaps most noticeably in its geography and relationship with the Great Lakes. But despite its unique nature, the state's elected officials are promoting energy policies that will impose the same harmful ideas that have damaged access to reliable and affordable energy in states like California and Texas and countries across Europe.

Elected officials in Michigan's legislature are threatening to pass a string of bills that they promise will codify Governor Whitmer's "MI Healthy Climate Plan," a plan that (among other things) aims to achieve net zero greenhouse gas emissions in Michigan by 2050.

Across the nation, people are aware of these "energy transition" plans and they are worried. A <u>July poll</u>, published by Morning Consult for the Electric Power Supply Association, found that "approximately half of the 2,205 respondents say their reliability unease has grown since last year, and three in four are afraid their bills will increase in the months ahead."

And they have good reason to fear. Modeling completed by the Center of the American Experiment for a soon-to-be-released Mackinac Center report demonstrates that meeting net zero mandates with wind, solar, and battery backup—the WSB Scenario—will cause Michigan's already-high electricity prices to skyrocket. As of November 1, the House version of the net-zero mandates (HB 4759) would cost Michiganders an astounding \$386 billion to 2050—an average annual additional cost of \$2,746 per customer.

But Michiganders already pay the <u>highest electricity rates</u> in any of the Great Lakes states and suffer through some of the worst electric service reliability in the nation. The intermittent nature of solar and wind will further endanger reliable electric services as our modeling shows that a wind, solar, and battery-based grid would leave Michiganders exposed to blackouts lasting as long as 61 hours in January.

In recent testimony to the Michigan Senate Energy and Environment Committee, the Mackinac Center recounted warnings about grid instability from several <u>industry experts</u>. We quoted admonitions from utility executives, two Federal Energy Regulatory Commissioners, the Acting Chairman of FERC, the CEO of the National Electric Reliability Corporation, a NERC reliability assessment, a report on the energy transition prepared by PJM, and numerous warnings from the Midcontinent Independent System Operator. Each quote warns of the growing risk posed by rushed closures of reliable generation

facilities paired with attempts to replace them with unreliable and intermittent energy sources like wind and solar.

Our model also investigated a second method of meeting CO2 emissions reduction goals—the LCD or Lower Cost Decarbonization Scenario. This alternate option retains the state's existing large coal and natural gas facilities but retrofits them with carbon capture and storage (CCS). While these plants continue to operate, the scenario details the costs of building new nuclear—small modular reactors and larger APR-1400s. Using coal and natural gas with CCS, as well as new nuclear, the second scenario achieves desired CO2 reductions but saves the ratepaying public \$180 billion to 2050. Furthermore, this second option avoids the potential for extended and dangerous blackouts.

To be clear, there is no inexpensive way to meet the Governor's CO2 emission reduction targets. Both scenarios add substantial costs to Michigan's electricity future. But, despite the high cost and potential impacts on reliability, Governor Whitmer and Michigan's Legislature have committed to a wind, solar, and battery-heavy plan that will hike prices and hollow out the state's electric grid, leaving Michigan residents exposed to extended blackouts and increased restrictions on electric services.

Adding insult to injury, the WSB option will have no perceptible impact on climate or world temperatures. The Senate and House bill packages would only avert one-one thousandth of a degree Celsius warming by the year 2100. That is a temperature reduction too small to even be reliably measured. A recent report by the <u>Citizens Research Council of Michigan</u> agreed, noting that "it is not possible for Michigan to measurably mitigate climate change through state-level emissions-reduction policies."

Erratic power generation drives away businesses and endangers the residents of the state, especially during the heat of summer or the cold of winter. But attempting to impose California-style energy policies on the state of Michigan will yield the same spiking prices and unreliable service that California residents endure.

Therefore, we are offering the LCD scenario, as a far more reasonable and prudent means of encouraging reliable and affordable electricity generation that also meets the CO2 reduction mandates proposed by Governor Whitmer and Michigan legislators. It is possible to achieve many of the same emissions-reduction goals at far lower costs, while also retaining grid reliability by focusing on:

• Retention of existing, already-paid-for baseload generation plants (the Campbell and Monroe coal-fired facilities) for their full, expected life cycle. Adding carbon capture and storage equipment to these plants to address concerns over the CO2 emissions associated with electricity generation.

- Continued operation and construction of new natural gas facilities (with CCS installed on the Blue Water Energy Center and Zeeland Plants)
- Re-opening the Palisades Nuclear Plant (with appropriate equipment and infrastructure upgrades to ensure continued safe and reliable operations)
- Building additional nuclear plants (APR-1400 and Small Modular Reactors) to provide reliable, clean, safe, and efficient electricity to power Michigan's future

We recommend that, if the state is unwilling to stop the rush to net zero, legislators should pursue the second, lower-cost decarbonization approach. The LCD option offers a "least-harm" option that will both achieve the net zero policy goals espoused by Governor Whitmer and House and Senate lawmakers while also lowering the high costs of net zero policies, and avoiding the potential for blackouts/outages.