

# Executive Summary: Energy Efficiency & Reliability in Ohio

## Key Points

- Energy efficiency (EE) and demand response (DR) enhance electric system reliability by reducing the energy needs of customers. Demand-side resources reduce the risk of blackouts from customers needing more electricity than the grid has available.
- If energy efficiency had continued after 2020, Ohioans could have used 5.4 million MWh less electricity in 2023.
- Demand savings from EE and DR programs in utility portfolios from 2009-2020 already reduced Ohio customer summer peak demand by 29%. Missed demand savings could have reduced the peak by a further 24%.

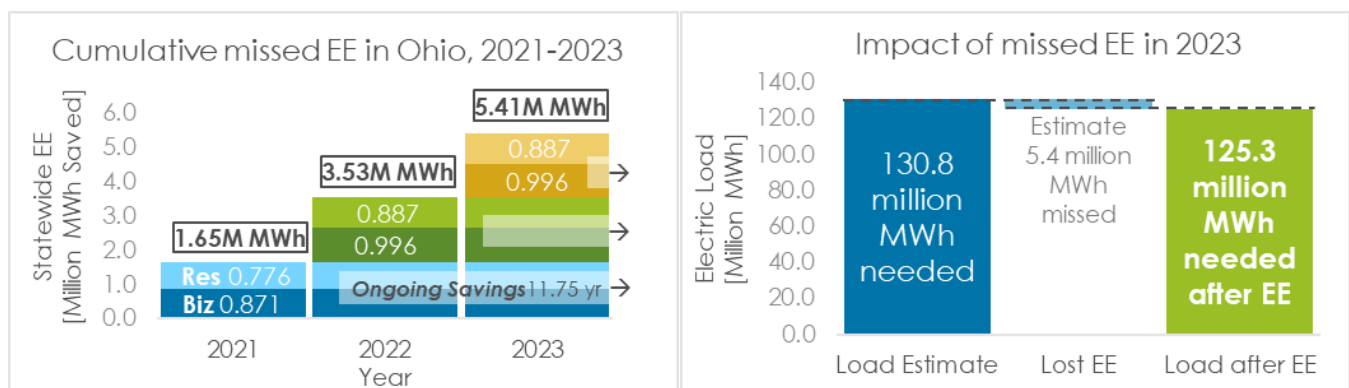
## Demand-side Resources Enhance Reliability

Demand-side management (DSM) has clear impacts on the reliability of the electric grid. Energy efficiency (EE) and its companion, demand response (DR), are essential first steps to ensuring that electric utilities can meet the needs of their customers, even when events reduce the amount of available electricity from generators on the grid.

The chance that high customer electricity use will cause system unreliability is known as the *Loss of Load Probability (LOLP)*. Increasing utility customers' access to EE and DR supports system reliability by reducing the risk that the available generation will not be enough to support customer electricity use, causing a loss of load (i.e., blackout) event.

## Ohio's Missed Energy Savings

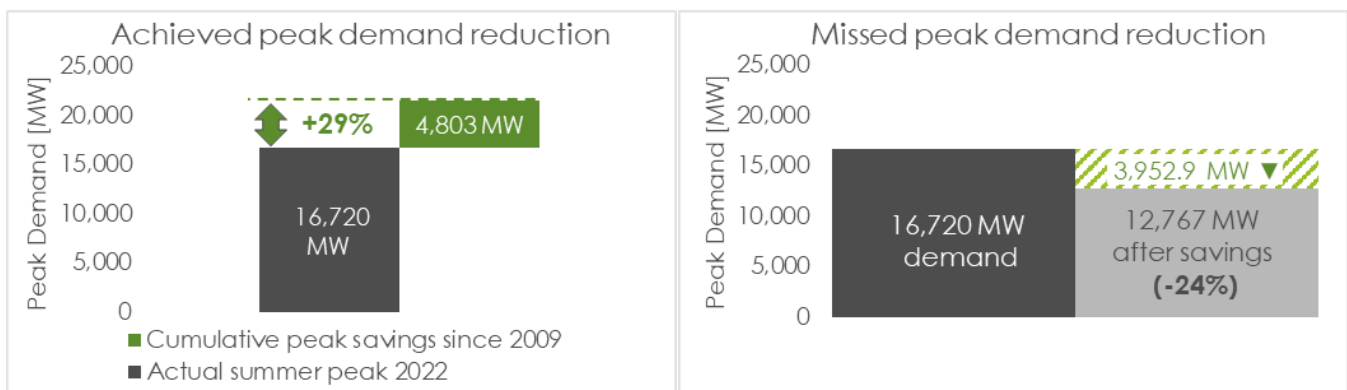
The Ohio Legislature overturned the state's energy efficiency resource standard (EERS) in 2019 with the passage of H.B. 6, and utility programs ended in 2020. If Ohio's electric utilities had been allowed to continue energy efficiency programs after 2020 at the same level, they could have saved 5.4 million megawatt-hours of electricity for their customers over the past three years.



The cumulative electricity savings could have reduced Ohio's customer electricity needs in 2023 by about 4%, and those missed savings would have persisted for over a decade.

## Ohio's Missed Demand Savings

Ohio's electric utilities reported their cumulative demand savings from their energy efficiency portfolios since 2009 in their 2020 final reports. Many energy efficiency measures save demand at the same time they save energy. These are called *coincident demand savings*. Utilities saved demand from both these coincident savings and through direct DR programs within their portfolios. Savings already achieved mean that the current summer demand peak in Ohio is 29% lower than it would have been without those programs.



If the strong DR program achievements from 2020 had continued through 2023, peak demand could have been reduced by as much as 24% more based on 2022 peak levels.

## Conclusion

Demand-side management has a strong role to play in ensuring the reliability of the electric grid. Ohioans are concerned that grid-based electricity resources will be inadequate for meeting future energy needs, and the response to that risk is focusing on new fossil-fueled generation assets. This is misplaced because Ohio has eliminated the first, lowest cost category of resources from the demand side: energy efficiency and demand response. The additional energy and demand savings that could have been achieved over the last three years would have had a substantial impact on the energy needs of Ohio utility customers and could have lessened the risk that is being felt today.

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*These comments reflect the views of the Midwest Energy Efficiency Alliance – a Regional Energy Efficiency Organization as designated by the U.S. Department of Energy – and not the organization's members or individual entities represented on our board of directors.*