

OPINION

Is Ontario protecting the integrity of its electricity supply?

By **Jatin Nathwani** Contributor

Mon., June 28, 2021



When summer temperatures soar well into the 30s and Ontario's electricity use strains capacity, the province's grid operator has the insurance of knowing it can call on large power users to reduce their consumption and ease the pressure on the system.

Demand-response options have proven to be among the lowest cost ways to meet our peak electricity needs. Turning down power at key moments is much more cost-effective than building fossil-fuel power plants and costly transmission lines to meet short-term requirements.

The Progressive Conservative government campaigned aggressively in the 2018 election on the issue of cleaning up Ontario's electricity "mess."

While there is a need to focus on affordability, the province's Independent Electricity System Operator (IESO) must do so while ensuring the grid's resilience and sustainability.

Ontario is now moving from an era of electricity surplus to one in which there will be a shortage of capacity during times of peak demand. Policies aimed at reducing consumption — whether long-term efficiency measures or peak-hour demand response — will be increasingly critical.

There is a compelling need for the IESO to provide a transparent and accountable mechanism for fostering demand response options and ensure its actions do not undermine accountability to customers.

The IESO's decision to cancel plans for procuring winter commitments for corporate customers to cut back power demand when the grid is at risk was unhelpful, and may prove to be highly consequential to the integrity of the grid in time of short supply.

This demand management tool is provided either by large industrial facilities, or by companies that specialize in aggregating and managing the demand of smaller consumers like grocery stores, office buildings, and shopping malls.

Demand response provides these customers with revenue to offset their power costs and allows them to be more competitive, in contrast with peak-supply options that rely primarily on fuels delivered from out of province.

It also provides greater reliability to the grid. During extreme weather events, such as ice storms, heat waves or floods, demand response has been used to shore up the resiliency of the power grid and avoid black outs.

On a cool summer day in June this year, peak power consumption was 16,887 megawatts at 6 p.m. Last year, peak demand hit 24,446 megawatts at 6 p.m. during a scorching heat wave on July 9. Corporate customers who had signed up for a demand response program shaved 600 megawatts off demand — approximately enough to power London, Ont.

The cancelled winter demand response would provide the system with a cost-effective insurance policy against unplanned power outages.

FOLLOW YOUR FAVOURITE STAR COLUMNISTS

Rather, the system operator is advancing decisions, such as extending the life of aging oil and gas-fired generating facilities in deals lacking transparency and accountability. This runs counter to overarching goals of reducing carbon emissions, as well as supporting affordable options that enable customers to better manage their electricity costs.

Unfortunately, we cannot predict extraordinary weather scenarios, such as ice storms and extreme precipitation or temperatures. However, we need to have the resources to maintain power reliability for when they occur.

Jatin Nathwani is professor of Management Science/Civil & Environmental Engineering at the University of Waterloo and was Ontario Research Chair in Public Policy for Sustainable Energy from 2007 to 2020.