



ENABLE

Smart Policies and Planning

BUILDINGS | CARBON CAPTURE AND STORAGE | FUEL CELLS | NUCLEAR | POLICY | **PLANNING**
RENEWABLES | SMART GRID | STORAGE | SUSTAINABLE MOBILITY | SUSTAINABILITY ANALYSES



AN EXPENSIVE WAY TO TACKLE PEAK POWER PROBLEMS

ANINDYA SEN

Mention hydro bills at any Tim Hortons in Ontario and you're sure to set off a chorus of grumbling. Electricity

rates in the province have skyrocketed in recent years. Today, they're among the highest in Canada.

According to WISE researcher Anindya Sen, that's due in part to the province's High-5 program. Introduced in 2011, it provides incentives for large industries to reduce electricity consumption during the highest demand hours of the year.

Trimming peak consumption avoids the need to build more generating stations — and Sen's analysis shows the program has been effective. However, it comes at a hefty cost.

The Waterloo Economics professor calculates that Ontario's major industrial users collectively reduced their use by 195 MW during High-5 days in 2011 and 2012. As a result, industry paid \$422 million less in 2012 than they would have under the previous formula.

While that's great for big users, Sen found much of the savings came from the pockets of smaller businesses and individuals. According to his analysis, the High-5 program has added an average of \$34 to the annual electricity bill of Ontario households. Meanwhile, the program fails to help sectors such as manufacturing that can't easily shift their production to non-peak hours.

That's why Sen recommends the Ontario government phase out High-5 and instead rely on the capacity system currently being developed to reduce peak demand. This competitive, market-based system would help lower electricity costs for everyone, he says, while giving industry real-time data to help them cut their consumption.

Researcher: *Anindya Sen*

[READ FULL PAPER](#)

wise.uwaterloo.ca



UNIVERSITY OF WATERLOO