

Energy

Q. What is the Industrial Conservation Initiative (ICI) and how does it provide benefits to the electricity system?

Response

The Industrial Conservation Initiative (ICI) is a demand response program and cost allocation mechanism that was introduced in 2011 following consultation with our stakeholders.

The Industrial Conservation Initiative (ICI) allows large electricity consumers to lower their electricity costs by reducing their demand during peak hours. This benefits companies financially, but it also benefits the electricity system by reducing the need for peaking generation, which reduces system costs that would otherwise need to be recovered from all Ontario ratepayers. It should be noted that the Industrial Conservation Initiative (ICI) is a voluntary program and eligible consumers are able to opt in or out in June of each year.

Through the program, the consumers who contribute the least to peak demand pay a smaller portion of costs associated with electricity generation, conservation and demand management programs. In other words, Industrial Conservation Initiative (ICI) participants are charged Global Adjustment (GA) in proportion to their contribution to the top five system peak hours in a year.

Global Adjustment

Before I go any further, I think it would be best to provide a very brief overview of what the Global Adjustment (GA) is.

The Global Adjustment (GA) is a mechanism that recovers certain electricity system costs. GA is calculated by the Independent Electricity System Operator (IESO) based on the difference between the market price for electricity and amounts owed to regulated and contracted generators to ensure they can recover their fixed costs, including nuclear, hydro, natural gas, and renewables. In addition, Global Adjustment (GA) also recovers costs associated with running conservation programs in the province.

The market price for electricity, known as the Hourly Ontario Energy Price (HOEP), is calculated each hour and represents the marginal cost of producing power at that time, including variable costs incurred by generators to produce electricity, such as fuel. If HOEP is insufficient to cover long term capital costs incurred by generators as included in their regulated or contracted rates, Global Adjustment (GA) makes up the difference. Conversely, when market prices exceed these contracted and regulated costs, suppliers have to pay back the difference.

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As a result, Global Adjustment (GA) varies from month to month, responding to changes in the Hourly Ontario Energy Price (HOEP) compared to contracted and regulated prices. Generally speaking, when HOEP is lower, GA is higher, and vice versa. The GA is also impacted when new projects come in to service, contract payments take effect, or as a result of changes in Ontario electricity demand. The combination of the HOEP and GA represent the total commodity cost of electricity.

The Global Adjustment (GA) has been an important factor in providing stable prices while ensuring that sufficient generating capacity is in place to deliver a reliable supply of electricity.

All consumers pay Global Adjustment (GA), however there is variation in how different types of customers are charged. All non-ICI participants pay GA as a volumetric charge, either through the Ontario Energy Board's (OEB) Regulated Price Plan (RPP) or as a separate line item on their bill. This means that they pay the same GA rate on every kilowatt-hour consumed.

However, participants in the Industrial Conservation Initiative (ICI) program are charged GA based on the proportion of their electricity demand compared to the total provincial electricity demand in the top five system peak hours in a year. Participants work to forecast when system peak hours will occur, which depends on a number of factors that influence when Ontarians consume electricity, such as time of day, time of year, and the weather, and then work to reduce consumption during those hours using any number of strategies, such as changing the operating profiles of industrial equipment.

If a Class A consumer is assessed, for example, to be responsible for one per cent of Ontario's peak demand for the five highest hours in a year, they will be charged for one per cent of total GA costs each month through the next year.

This allows participants to manage their GA costs by consuming less during peak hours. As a result, Industrial Conservation Initiative (ICI) participants pay for the electricity system costs that are recovered through the GA – costs which increase with higher system peak demand – in proportion to their contribution to those costs.

Benefits of Industrial Conservation Initiative (ICI)

The Industrial Conservation Initiative (ICI) provides a number of system benefits. First, because ICI provides a reduction in Ontario peak demand, it helps defer the need to build expensive new peaking generation facilities in the longer term, reducing costs for all ratepayers across the province: residential, commercial and industrial. By keeping peak system demand as low as it can be, we are making the system more cost-effective for all ratepayers into the future.

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Second, it better aligns consumer prices with the consumer's contribution to total system costs. Consumers who are drawing electricity from the system at times of peak demand in the province pay a larger proportion of the costs, because they are contributing to the incurrence of electricity system costs associated with higher peak demand. Similarly, consumers who are contributing the least to peak electricity demand pay a smaller portion of these related costs. The recovery mechanism under Industrial Conservation Initiative (ICI) maintains this relationship between a consumer's electricity costs and their contribution to provincial peak demand.

An electricity system's long run costs – as opposed to short run costs, such as fuel – are largely a function of capital investments in the infrastructure required to meet maximum demand. Therefore it follows that the recovery of long term costs should be a function of consumption during peak demand periods. Simply put, Industrial Conservation Initiative (ICI) is fair because it is designed to match each customer's share of costs with their contribution to those costs.

Lastly, through lower industrial prices, Industrial Conservation Initiative (ICI) works to retain manufacturing load in the province, meaning that these manufacturers continue to contribute towards fixed system costs that would otherwise be borne by remaining consumers.

Further, because Industrial Conservation Initiative (ICI) helps industrial consumers lower electricity prices by one-third on average, it helps them to remain competitive and focused on creating jobs for Ontarians across the province.

Thanks in part to Industrial Conservation Initiative (ICI), indicative industrial electricity prices in Ontario are lower than the average price in the rest of the Great Lakes region, as reported by the U.S. Energy Information Administration.

It is also important to note that we have been taking steps to make sure that Ontario businesses are aware of the program and how it can help them improve their competitiveness and keep providing jobs. To this end, we have partnered with the Ontario Chamber of Commerce (OCC) to ensure that all Ontario businesses are aware of the benefits of this program. OCC is leading the campaign to raise awareness amongst Ontario consumers.

History of Industrial Conservation Initiative and Expansions

Initially Industrial Conservation Initiative (ICI) was available to consumers with peak demand above five megawatts (MW). Effective July 2015, Class A consumer status was extended to consumers operating in select electricity-intensive sectors with average monthly peak demand greater than 3 MW. These sectors included the mining, refrigerated warehousing, greenhouses and data processing sectors, with the North American Industry Classification System (NAICS) codes beginning with 21, 31-22, 518, 1114, and 493120.

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In January 2017, regulatory amendments took effect that further expanded the Industrial Conservation Initiative (ICI) program to include more than one thousand newly eligible customers with monthly peak demand greater than one megawatt, down from the prior threshold of three megawatts. In addition, sector restrictions were removed and smaller industrial, institutional and commercial businesses were eligible to participate.

As part of Ontario's Fair Hydro Plan, the Industrial Conservation Initiative (ICI) has been expanded again to include smaller manufacturers and greenhouses with peak demand between 500 kW and 1 MW, in addition to the consumers over 1 MW who were already eligible. These consumers include those with NAICS codes starting with 31-33 and 1114. Newly eligible participants would have begun to see the impact on their July 2017 bills.

Prior to the 2017 expansions, there were approximately 300 Industrial Conservation Initiative (ICI) participants. For the current adjustment period there are approximately 1,100 participants, many of which would not have previously been eligible but realized they could benefit their companies or organizations by opting in to the program as a result of the expansions.

Expanding participation in the Industrial Conservation Initiative (ICI) program has reduced electricity demand during peak periods, and it has reduced electricity bills for new ICI participants who are able to reduce their electricity demand during peak demand periods.

ICI Effectiveness and Results

The Industrial Conservation Initiative (ICI) has been very successful at reducing peak electricity demand. In fact, our system operator estimates that this program reduced peak demand by about 1,300 MW in 2016. That's about 6 per cent of Ontario's peak electricity demand, and is equivalent to:

- The peak electricity demand of a city roughly the size of Mississauga, OR
- Two gas plants the size of Halton Hills Generating Station west of the Greater Toronto Area, OR
- Nearly three times the amount of demand response that cleared the market in the most recent auction held by the Independent Electricity System Operator (IESO) in December 2016.

The Ontario electricity system is now well placed to continue to meet demand for electricity and remain focussed on taking costs out of the electricity system wherever possible. Reducing peak demand has played an important role in this objective. The contracts for several Non-Utility Generator (NUG) facilities have recently ended and

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these facilities have not been re-contracted. In addition, the second round of the large renewable procurement process (LRP II) and the Energy-from-Waste Standard Offer Program have been suspended based on the review of the supply and demand context, which is expected to save up to \$3.8 billion in electricity system costs relative to the 2013 Long-Term Energy Plan (2013 LTEP) forecast.

Future reductions in peak demand due to Industrial Conservation Initiative (ICI) are also factored into the cost forecasts included in the recently released 2017 Long-Term Energy Plan (2017 LTEP).

The Industrial Conservation Initiative (ICI) is about fairness for all consumers – large and small. We made the policy decision that it makes sense for electricity consumers to pay for electricity system costs proportionally to their contribution to the incurrence of those costs.

Further, the ICI program will continue to play an important role in helping us bring down total system costs, which will put downward pressure on electricity bills for everyone moving forward.

Q. Ontario Energy Board Review Exercise

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Response

Thank you members of the Committee. I understand there is interest in the Auditor General's recommendations regarding the Ontario Energy Board's oversight of the Independent Electricity System Operator's market rules.

I understand this interest, given the critical role the Ontario Energy Board (OEB) plays.

The Ontario Energy Board (OEB) is the Province's regulator of the energy sector in Ontario. Its stated mission is to promote a viable, sustainable and efficient energy sector that serves the public interest, and protect consumers with respect to prices, adequacy, reliability and quality of service.

I would like to inform the Committee of a new initiative announced by the Ministry that will be reviewing the Ontario Energy Board's (OEB) role in the electricity sector, including its market oversight mandate.

On December 14, 2017, Minister Thibault announced the formation of the *Ontario Energy Board Modernization Review Panel*.

The Panel, Chaired by Richard Dicerni, will spend 2018 consulting with consumers, industry, Local Distribution Companies, innovators, and economic regulators from other

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jurisdictions to deliver an action plan for regulatory modernization. It will report to the Minister by the end of 2018.

The OEB Modernization Review Panel is a recognition that as Ontario seeks to renew its energy systems for the future, a fundamental and foundational review of the Ontario Energy Board (OEB) is necessary to guide and support the immense technology change that is coming.

Personal home electricity storage, more families driving electric vehicles, and the presence of more distributed energy resources with the increase in net-metering all hold the potential to disrupt our electricity system and, by extension, our regulatory framework.

This is a reality reflected in our 2017 Long-Term Energy Plan (2017 LTEP). Our 2017 LTEP calls for the Ontario Energy Board (OEB) to build off the work it has achieved to-date and continue to enhance the ability of the regulatory framework to accommodate new technologies.

In conducting this review of the Ontario Energy Board (OEB), we will take a longer, more strategic perspective. This effort will look to optimize the Board's efforts across all of its activities, and thus goes beyond any single policy consultation such as LTEP. It is important to recognize that this Panel is not a critique of our existing structures or systems. It's an awareness that the status quo is changing.

Given that the evolution of the sector will take place over decades, and that there will be a need to remain flexible in response to innovations we cannot predict yet, the Ministry is asking for the best advice on how best to respond to the regulatory challenges and opportunities at hand.

The scope of the OEB Modernization Review Panel will be significant, in recognition of the challenges ahead. Government will not presume or attempt to direct the outcomes. And Richard Dicerni, with considerable experience in both government and the energy sector, is the right choice to lead this critical task.

Richard is a former Deputy Minister at both the Ontario and federal levels, a former President of Ontario Power Generation and former Secretary of Cabinet in Alberta. Richard is also a recent recipient of the Order of Canada.

Additional Panel members will be appointed in the future. Under Richard's leadership, I'm confident the Ministry will receive a set of recommendations that will optimize the OEB's mandate and activities within the entire energy sector.

I would now like to explain the background work by the Ministry that led to the creation of this Panel, as well as some of the initial expectations of how it will go about its work.

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Mandate Review

It is important to note that the Ontario Energy Board (OEB) is an independent, quasi-judicial tribunal that conducts its work through public hearings and consultations.

It derives its legal authority and responsibility to act as the Province's energy regulator from Provincial legislation set by the government, primarily through the *Ontario Energy Board Act, 1998* (OEBA) and the *Electricity Act, 1998*.

The Ontario Energy Board's (OEB) responsibilities can be grouped into 3 main areas:

1. Market Regulation, which includes setting rates, licencing market participants, and monitoring ongoing financial operating performance of utilities.
2. Protecting Consumers, which includes enforcing the *Energy Consumer Protection Act, 2010* and monitoring compliance, keeping consumers informed, and undertaking complaint investigation; and
3. Policy initiatives, which includes developing codes, rules and guidelines, consulting on significant energy issues and emerging trends, and providing advice to government.

As a provincial agency prescribed under the Agencies and Appointments Directive of Treasury Board, the Ontario Energy Board (OEB) must undergo a process called a Mandate Review once every seven years. A Mandate Review is a chance for Ministries to ensure that the activities of their agencies align with the public interest.

A mandate review is an examination of the agency, with a view to answer the following questions:

1. Whether the provincial agency is carrying out the activities and operations that represent its mandate;
2. Whether, and the extent to which, the mandate continues to be relevant to the goals and priorities of the Government of Ontario; and
3. Whether all or part of the functions of the provincial agency are best performed by the provincial agency, or whether they might be better performed by a ministry, another provincial agency, or another entity.

The Ministry completed a Mandate Review of the Ontario Energy Board (OEB) in mid-2017, in parallel with the development of the Long-Term Energy Plan (LTEP). This review found that on the whole, the Ontario Energy Board's (OEB) mandate, initiatives and activities are aligned with the evolving needs of the Ministry. It reconfirmed that the

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work that the Ontario Energy Board (OEB) does is both necessary and relevant to the public interest.

The Mandate Review provided a number of recommendations on how the Ontario Energy Board (OEB) improve the sophistication of its business planning, service standards, and performance evaluation. Recommendations focused on the composition and structure of membership of the board and the management committee, and governance and oversight mechanisms such as business plans and annual reports. The Ministry accepted these recommendations and is working with the Ontario Energy Board (OEB) to move them forward in the near-term through the business planning cycle.

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The Mandate Review also, however, identified that given the emerging challenges in the energy sector, the Ministry may wish to consider deeper reforms. To that end, the Review's final recommendation was for the Ministry to consider engaging an expert review panel to determine whether more significant governance changes are appropriate.

The OEB Modernization Review Panel is the Ministry's response to this recommendation. Ontario is not alone in conducting this type of review. Regulators worldwide are undertaking initiatives to support grid modernization. Policy initiatives or regulatory reviews are underway in at least 30 American states.

IESO

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Q. Can you explain what the Market Renewal Program is?

Response

- XXX Repurpose past speeches to provide overview of Market Renewal, including where we've come from, why now is the right time to undertake Market Renewal, an explanation of the Energy and Capacity streams and what they are intended to accomplish, and the engagement process (including reference to the new low-volume consumer representative).

Q. Can you explain the IESO's role maintaining reliability?

Response

- Discuss the IESO's role as Ontario's Reliability Coordinator, including how it follows and contributes to NERC and NPCC reliability standards, the value of being interconnected with neighbouring systems, and the market rules. Could use an anecdotal example like last year's solar eclipse and our increasing amount of solar to discuss how reliable operation of the grid is changing.

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Q. What is the IESO doing to protect against cybersecurity threats?

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Response

- To discuss current practices and national/international forums the IESO participates in to ensure we are at the forefront of cybersecurity.

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OEB

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Q. Role of the Market Surveillance Panel

Response

- XXX