

KEY MESSAGES:

- We thank the Auditor General for her analysis. The Ministry of Energy remains committed to assisting the Office of the Auditor General so that it can provide its independent views to the Legislative Assembly.
- However, we disagree with several aspects of this report, including the characterisation of the wholesale electricity market and of the operation of the ICI program.
- We support the Ontario Energy Board (OEB) and the Independent Electricity System Operator (IESO) in the important roles they play to ensure that Ontario's electricity market operates efficiently. We are confident in IESO's ability to administer an efficient and fair electricity market.
- In the longer-term, IESO's Market Renewal initiative will reduce gaming opportunities and out-of-market payments and better allocate risk.
- Some of these costs are necessary given the electricity system design. Many of the instances raised by the OAG were also investigated by the IESO and the market participants were fined for their conduct. Money collected through fines is returned to ratepayers.
- With respect to ICI, lowered peak demand reduces the need for supply resources and ultimately the projection for electricity system cost, benefiting all consumers. The IESO estimates that ICI reduced peak demand by about 1,300 MW in 2016.
- Furthermore, bill reductions under Ontario's Fair Hydro Plan (OFHP) will not be influenced by ICI expansion. The OEB sets rates to achieve OFHP reductions for a proxy consumer, regardless of participation in ICI.

QUESTIONS & ANSWERS

Legend:

Real-Time Generation Guarantee Program (IESO) = Standby Cost Recovery Program (AG)

Congestion Management Settlement Credits (IESO) = Lost Profit Recovery Program (AG)

**INDEPENDENT ELECTRICITY SYSTEM OPERATOR (IESO) OVERSIGHT OF THE ELECTRICITY MARKET –
Recommendations 1, 4, 5, 6, 7, 8, 9 & 10**

Q. Why has IESO repeatedly failed to make changes or cancel both the Real-Time Generation Guarantee Program and Congestion Management Settlement Credits as recommended by the Ontario Energy Board's Market Surveillance Panel?

The Independent Electricity System Operator (IESO) and the Ontario Energy Board's (OEB) Market Surveillance Panel (MSP) have a shared responsibility to monitor behaviour in Ontario's electricity market.

We are confident in IESO's ability to administer an efficient and fair electricity market, as well as the MSP's ability to provide independent monitoring and investigations.

Based on the findings of the MSP Report, we expect IESO in the future to be more proactive in providing oversight and ensuring compliance with Ontario's electricity market rules.

IESO has begun a Market Renewal initiative to redesign the province's electricity markets. Market Renewal is an opportunity to improve the efficiency and operation of the electricity system.

Q. The AG reports that in almost all of the OEB Panel's reports – 30 since 2002 – that the Panel has recommended changes to the Real-Time Generation Guarantee Program.

Why do these programs continue to exist after alarm bells have been going off for years from your own Panel?

The underlying purpose of the Generation Cost Guarantee (GCG) program is to promote reliability by providing market participants with an incentive to offer supply to the market. It aims to do this by guaranteeing the recovery of certain incremental costs incurred whenever an eligible generation facility starts up and is brought up to the minimum level of output that it can reliably inject into the electricity grid.

Mandatory North American reliability standards require that IESO demonstrate on a daily basis that adequate resources will be available to meet the expected demand plus a reserve margin.

The RT-GCG program is a key element of the mechanisms that the Independent Electricity System Operator (IESO) relies on in developing its daily Operating Plan and preparing for reliable real-time operations. In particular, the RT-GCG program helps meet daily reliability requirements by incenting participants to start their facilities, be available and offer real-time supply to the market.

The incentive is available for generation facilities that meet eligibility criteria to ensure recovery of certain incremental start-up costs, subject to defined revenue offsets. As noted, the primary goal of IESO's RT-GCG program is to ensure that generators are available when needed.

In the recent past, IESO has stated that it is concerned that the Panel's recommendations, which would significantly reduce the incentive structure under the program, could have negative impacts on the program's overall reliability goals, in that the output from some gas-fired units might not be offered into the market in real time, which would, in turn, impact market dynamics and reliability, potentially impairing IESO's ability to address changing conditions over the day.

The IESO has begun a Market Renewal initiative to redesign the province's electricity markets. Market Renewal is an opportunity to improve the efficiency and operation of the electricity system.

Q. As the province's independent agency responsible for protecting ratepayers, why has the OEB not forced IESO to make changes or cancel these programs?

A. The Independent Electricity System Operator (IESO) and the Ontario Energy Board's (OEB) Market Surveillance Panel (MSP) have a shared responsibility to monitor behaviour in Ontario's electricity market.

We are confident in IESO's ability to administer an efficient and fair electricity market, as well as the MSP's ability to provide independent monitoring and investigations.

Based on the findings of the MSP Report, we expect IESO in the future to be more proactive in providing oversight and ensuring compliance with Ontario's electricity market rules.

The IESO has begun a Market Renewal initiative to redesign the province's electricity markets. Market Renewal is an opportunity to improve the efficiency and operation of the electricity system.

Q. Why is IESO not able to recoup 100 per cent of the ineligible costs that have paid to private power generators? Doesn't this just encourage further 'gaming' within the electricity system?

The Independent Electricity System Operator's (IESO) Market Assessment and Compliance Division (MACD) can levy penalties and seek the recovery of amounts that were incorrectly claimed.

The Ministry, in consultation with both the OEB and IESO, will review the Electricity Act, 1998 regarding the market rule approval process. The Ministry will also review the authority of the OEB regarding the enforcement of market rules and the response to abuses and gaming of market rules.

The Ministry of Energy supports the vital role that MACD plays in investigating potential infractions in Ontario's electricity system.

To ensure that MACD can effectively conduct its investigations, the Ministry will consult with IESO regarding the potential need for additional legislative authority to assist MACD in performing its mandated duties. The IESO has begun a Market Renewal initiative to redesign the province's electricity markets. Market Renewal is an opportunity to improve the efficiency and operation of the electricity system.

Q. Why did we start reimbursing generators for maintenance costs? Why has this continued despite the alarm bells? What benefit does this provide to the system when it clearly causes so many problems?

By 2009, coal fired generation was being replaced by natural gas-fired generation facilities, which have very different operating characteristics and risk profiles. This change in the underlying characteristics of the supply mix was amongst the factors that prompted IESO to make changes to the RT-GCG program, to include the guarantee of certain start-up operating and maintenance (O&M) costs, impose more stringent program eligibility criteria, and place limitations on eligible fuel costs – all aimed at improving the overall efficiency of the commitments

The Panel's recommendation to eliminate guarantees under the RT-GCG program for incremental operating and maintenance costs is based in part on earlier versions of the program where eligible payments were limited to fuel-only costs. However, at the time those earlier versions relied heavily on flexible generation to provide the vast majority of the starts under the program (about 80 per cent of starts – of which over half were coal).

The IESO has begun a Market Renewal initiative to redesign the province's electricity markets. Market Renewal is an opportunity to improve the efficiency and operation of the electricity system.

Q. Can you name any other programs or jurisdictions that allow expenses to be reimbursed/paid before they're reviewed and approved? Why is this the way it works with these programs?

There are processes in place under the Independent Electricity System Operator (IESO) market rules intended to identify and manage false claims under the Generator Cost Guarantee (GCG) program. The IESO has the authority to conduct audits of GCG submissions made by generators and other market participants.

The IESO's Market Assessment and Compliance Division (MACD) can levy penalties and seek the recovery of amounts that were incorrectly claimed.

In the case of Goreway Station, the settlement included the agreement that Goreway would repay to IESO a sum representing a substantial portion of the GCG payments received over the nearly six-year time frame covered by IESO's audit , as well as a financial penalty of \$10 million.

The Ministry of Energy, in consultation with both the Ontario Energy Board (OEB) and IESO, will review the Electricity Act, 1998 regarding the market rule approval process. The Ministry will also review the authority of the OEB regarding the enforcement of market rules and the response to abuses and gaming of market rules.

The Ministry supports the vital role that MACD plays in investigating potential infractions in Ontario's electricity system.

To ensure that MACD can effectively conduct its investigations, the Ministry will consult with IESO regarding the potential need for additional legislative authority to assist MACD in performing its mandated duties.

The IESO has begun a Market Renewal initiative to redesign the province's electricity markets. Market Renewal is an opportunity to improve the efficiency and operation of the electricity system.

Q. What is the total amount of ineligible costs that private power generators have received from IESO since the electricity market opened in 2002? At what point does IESO give up on recouping the full cost lost to ratepayers?

There are processes in place under the Independent Electricity System Operator's (IESO) market rules intended to identify and manage false claims under the Generator Cost Guarantee (GCG) program. The IESO has the authority to conduct audits of GCG submissions made by generators and other market participants.

The IESO's Market Assessment and Compliance Division (MACD) can levy penalties and seek the recovery of amounts that were incorrectly claimed.

In the case of Goreway Station, the settlement included the agreement that Goreway would repay to IESO a sum representing a substantial portion of the GCG guarantee payments received over the nearly six-year time frame covered by the IESO's audit, as well as a financial penalty of \$10 million.

The IESO has begun a Market Renewal initiative to redesign the province's electricity markets. Market Renewal is an opportunity to improve the efficiency and operation of the electricity system.

Q. These investigations have shown up a huge range of claimed but ineligible costs, including \$140,000 for parkas and coveralls, the costs of staff car washes, carpet cleaning, road repairs, landscaping, scuba gear and raccoon traps.

Do you consider it appropriate that Ontario ratepayers are picking up the tab for these?

There are processes in place under the Independent Electricity System Operator (IESO) market rules intended to identify and manage false claims under the Generator Cost Guarantee (GCG) program. The IESO has the authority to conduct audits of GCG submissions made by generators and other market participants.

The IESO's Market Assessment and Compliance Division (MACD) can levy penalties and seek the recovery of amounts that were incorrectly claimed.

In the case of Goreway Station, the settlement included the agreement that Goreway would repay to IESO a sum representing a substantial portion of the GCG guarantee payments received over the nearly six-year time frame covered by IESO's audit, as well as a financial penalty of \$10 million.

IESO has begun a Market Renewal initiative to redesign the province's electricity markets. Market Renewal is an opportunity to improve the efficiency and operation of the electricity system.

Q. With this outrageous amount of ineligible costs being paid out of the pockets of Ontario ratepayers, how can families and businesses be confident with IESO's oversight of the electricity market?

We are confident in the Independent Electricity System Operator's (IESO) ability to administer an efficient and fair electricity market, as well as the MSP's ability to provide independent monitoring and investigations.

The IESO has taken immediate remedial action to address issues raised in the MSP Report. In addition, IESO has launched stakeholder engagements and implemented market rule changes that further address the issues and recommendations highlighted in the MSP Report.

Based on the findings of the MSP Report, we expect IESO in the future to be more proactive in providing oversight and ensuring compliance with Ontario's electricity market rules.

In the longer-term, IESO's Market Renewal initiative will reduce gaming opportunities, allocate risk better and reduce out-of-market payments.

The IESO's Market Renewal initiative is an opportunity to improve the efficiency and operation of the electricity system and to ensure that market participants are not abusing Ontario's electricity market rules.

Q. The AG's report mentions that the MSP has been "concerned" about payments of \$500 million paid out to market participants in Northwestern Ontario. Can you explain these payments?

Under the CMSC regime, the Independent Electricity System Operator (IESO) makes payments to generators and consumers who are directed by IESO to generate electricity, or to stop generating or

consuming electricity, in a manner that would be uneconomic for them. These payments are calculated to compensate for the implied economic loss resulting from following these directions.

In northwestern Ontario, due to an abundance of hydroelectric generation, there is typically a large surplus of power. Accordingly, over the years, IESO has needed to instruct generators in northwestern Ontario to stop generating electricity, resulting in payments to the generators.

The IESO's Market Renewal initiative is an opportunity to improve the efficiency and operation of the electricity system and to ensure that market participants are not abusing Ontario's electricity market rules.

Q. With both the design of the Market Renewal Initiative and with previous changes to the Real-Time Generation Guarantee Program and Congestion Management Settlement Credits being overseen by the same market participants that have claimed ineligible expenses, aren't you just letting the fox guard the henhouse?

Can you explain why it's appropriate to allow these generators to make up rules for themselves? Why is there so little representation for medium and low-volume electricity consumers?

The Independent Electricity System Operator (IESO) has begun a Market Renewal initiative to redesign the province's electricity markets. This undertaking is expected to save up to \$5.2 billion between 2021 and 2030 and forms a key component of the government's plan to bring down the cost of electricity.

Generators and other market participants are participating in IESO's stakeholder process for Market Renewal. It is IESO that will make the final determination regarding the design of a renewed market structure, with oversight provided by the Ontario Energy Board (OEB).

The IESO's Market Renewal is expected to result in a more competitive marketplace that more flexibly and efficiently meets system needs and government policy goals. Market Renewal will be aligned with the objectives of Ontario's Climate Change Action Plan, and will be designed to meet system needs, reduce ratepayer costs and reduce GHG emissions.

The IESO's Market Renewal will help Ontario prepare for the future by creating a competitive framework that cost-effectively incorporates clean energy resources and new and emerging clean technologies. This will help meet our climate change and greenhouse gas (GHG) reduction commitments. The IESO, together with its sector partners, has identified the need to ensure that this new framework can properly value environmental attributes and the benefits they provide to the system. At the same time, existing resources will be able to continue to meet system needs in the redesigned electricity markets. Maximizing the use of these assets will allow Ontario to limit future cost increases.

A reformed electricity market would not only help reduce costs, but also increase two-way electricity trade with other jurisdictions. Imports and exports could be scheduled more frequently on the interties, which are the transmission lines going to states and other provinces. This could allow more imports of lower-cost generation, and provide greater revenue and access to export markets for Ontario

generators.

Q. The AG finds that the IESO Oversight Division's investigative powers lack teeth and it can only receive information from *willing* market participants to support investigations. This means there is no way to uncover the extent of violations. Are you concerned with the Division's lack of powers to fulfill its role adequately?

We are confident in the Independent Electricity System Operator's (IESO) ability to administer an efficient and fair electricity market, as well as the MSP's ability to provide independent monitoring and investigations.

The IESO has taken immediate remedial action to address issues raised in the MSP Report. In addition, IESO has launched stakeholder engagements and implemented market rule changes that further address the issues and recommendations highlighted in the MSP Report.

Based on the findings of the MSP Report, we expect IESO in the future to be more proactive in providing oversight and ensuring compliance with Ontario's electricity market rules.

In the longer-term, IESO's Market Renewal initiative will reduce gaming opportunities, allocate risk better and reduce out-of-market payments.

The IESO's Market Renewal initiative is an opportunity to improve the efficiency and operation of the electricity system and to ensure that market participants are not abusing Ontario's electricity market rules.

Q. With Ontario's surplus of electricity supply, why is the Real-Time Generation Cost Guarantee Program even needed? Aren't you just paying generators to 'standby' for electricity that's won't be required? Why not just import this electricity as the AG references (pg. 23)?

The purpose of the Generation Cost Guarantee (GCG) program is to promote reliability by providing market participants with an incentive to offer supply to the market. It does this by guaranteeing the recovery of certain incremental costs incurred whenever an eligible generation facility starts up and is brought up to the minimum level of output that it can reliably inject into the electricity grid

Mandatory North American reliability standards require that the Independent Electricity System Operator (IESO) demonstrate on a daily basis that adequate resources will be available to meet the expected demand plus a reserve margin.

The RT-GCG program is a key element of the mechanisms that IESO relies on in developing its daily Operating Plan and preparing for reliable real-time operations. In particular, the RT-GCG program helps meet daily reliability requirements by incenting participants to start their facilities, be available and offer real-time supply to the market.

The incentive is available for generation facilities that meet eligibility criteria to ensure recovery of certain incremental start-up costs, subject to defined revenue offsets. As noted, the primary goal of the IESO's RT-GCG program is to ensure that generators are available when needed.

In the recent past, IESO has stated that it is concerned that the Panel's recommendations, which would significantly reduce the incentive structure under the program, could have negative impacts on the program's overall reliability goals, in that the output from some gas-fired units might not be offered into the market in real time, which would, in turn, impact market dynamics and reliability, potentially impairing IESO's ability to address changing conditions over the day.

The IESO's Market Renewal initiative is an opportunity to improve the efficiency and operation of the electricity system and to ensure that market participants are not abusing Ontario's electricity market rules.

Q. The AG finds that IESO hasn't been distributing resources in an effective way to ensure all investigations are being completed into improper costs being claimed. In fact, the AG states that only one in five potential cases identified by the Director of the Oversight Division can be investigated, because of lack of resources.

What is the scale of this problem (ie. how many investigations should have been done)? And what is IESO's plan to deal with it? Why does the IESO's oversight team now have the proper IT system to do their investigations?

The Ministry of Energy, in consultation with both the Ontario Energy Board (OEB) and the Independent Electricity System Operator (IESO), will review the Electricity Act, 1998 regarding the market rule approval process. The Ministry will also review the authority of the OEB regarding the enforcement of market rules and the response to abuses and gaming of market rules.

The Ministry supports the vital role that MACD plays in investigating potential infractions in Ontario's electricity system.

To ensure that MACD can effectively conduct its investigations, the Ministry will consult with IESO regarding the potential need for additional legislative authority to assist MACD in performing its mandated duties.

The IESO's Market Renewal initiative is an opportunity to improve the efficiency and operation of the electricity system and to ensure that market participants are not abusing Ontario's electricity market rules.

INDUSTRIAL CONSERVATION INITIATIVE (ICI) – Recommendations 2 & 3

Q. The AG Report states that the ICI program is "shifting a significant amount of the global adjustment charge from large industrial ratepayers to residential and small-business ratepayers". Is it fair that these classes of ratepayers are subsidizing electricity costs of big businesses?

It is not correct to characterize the Industrial Conservation Initiative (ICI) program as a cost shift to remaining consumers. Rather, ICI supports a fair cost allocation framework where consumers who are contributing the most to peak demand pay a larger proportion of the related costs. Similarly, consumers who are contributing the least to peak demand pay a smaller portion of these related long-run costs.

Lowered peak demand reduces the need for supply resources and ultimately the projection for electricity system cost. The Independent Electricity System Operator (IESO) estimates that ICI reduced peak demand by about 1,300 MW in 2016, equivalent to the capacity of two natural gas generating plants the size of Halton Hills Generating Station west of the GTA.

Ontario's Fair Hydro Plan (OFHP) reduced electricity bills for residential consumers by an average of 25 per cent and will hold any increases to the rate of inflation for four years. Under the Ontario Fair Hydro Plan Act, 2017 and its regulations, the Ontario Energy Board (OEB) sets rates to achieve these reductions for a proxy consumer, regardless of the level of participation in ICI.

Q. Will you consider shifting the cost of this program to the tax-base?

We do not believe that it would appropriate for the government to fund the Industrial Conservation Initiative (ICI) through the tax-base, because of the significant savings that accrue to electricity consumers through the lowered peak demand levels resulting from ICI.

Q. The AG states that global adjustment charges for large consumers will be shifted to families and businesses. Do expansions of the ICI program correlate with the near doubling of electricity rates being paid by families and small businesses?

It is not correct to characterize the Industrial Conservation Initiative (ICI) program as a cost shift to remaining consumers. Rather, ICI supports a fair cost allocation framework where consumers who are contributing the most to peak demand pay a larger proportion of the related costs. Similarly, consumers who are contributing the least to peak demand pay a smaller portion of these related long-run costs.

We would note that Ontario's Fair Hydro Plan (OFHP) for residential and small business consumers will not be influenced by ICI expansion.

OFHP reduced electricity bills for residential consumers by an average of 25 per cent and will hold any increases to the rate of inflation for four years. Under the Ontario Fair Hydro Plan Act, 2017 and its regulations, the OEB sets rates to achieve these reductions for a proxy consumer, regardless of participation in ICI.

Q. Do you agree with the Auditor-General (AG) that the government is not being transparent about the cost of the Industrial Conservation Initiative (ICI)?

Government does not view the ICI program as a cost shift to remaining consumers. Rather, ICI supports a fair cost allocation framework where consumers who are contributing the most to peak demand pay a larger proportion of the related costs. Similarly, consumers who are contributing the least to peak demand pay a smaller portion of these related long-run costs.

It is also worth noting that the Independent Electricity System Operator (IESO) publishes on its website the allocation of Global Adjustment (GA) costs each month, as well as the consumption for each class of consumer. The Ministry continues to monitor the impact of ICI on reducing peak demand and the impact on ratepayers.

Q. Will you review the impact of the ICI on low-income consumers and report it, as recommended by the AG?

We would note that Ontario's Fair Hydro Plan (OFHP) for residential and small business consumers will not be influenced by Industrial Conservation Initiative (ICI) expansion.

OFHP reduced electricity bills for residential consumers by an average of 25 per cent and will hold any increases to the rate of inflation for four years. Under the Ontario Fair Hydro Plan Act, 2017 and its regulations, the OEB sets rates to achieve these reductions for a proxy consumer, regardless of participation in ICI.

INDEPENDENT ELECTRICITY SYSTEM OPERATOR (IESO) IT AND CYBERSECURITY – Recommendations 11, 12, 13, 14, 15, 16, 17

Q. Are you confident that Ontario's electricity system has the necessary protections in place to defend from cybersecurity attacks?

The Independent Electricity System Operator (IESO) complies with all applicable North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection standards, which include standards for cybersecurity. The electricity sector is unique as the only critical infrastructure sector with mandatory and enforceable cybersecurity standards.

Q. Will the IESO address all of the AG's concerns with the agency's IT human resources and cybersecurity system?

The Independent Electricity System Operator (IESO) is already in the process of recruiting a new Chief Information Officer (CIO) with an increased focus on cybersecurity, and will consider creating a senior-

level position for cybersecurity with formal reporting to both IESO executives and IESO Board of Directors.

The IESO is also in the process of implementing an independent consultant's recommendation to increase the number of current cybersecurity staff in a manner consistent with the OAGO's recommendation.

Q. Power generation and electricity sectors are a primary target for cyberattacks. How would IESO characterize the level of threats it has experienced, and what measures has it taken to improve its resilience?

***[NTD: Awaiting material from IESO]

CONFIDENTIAL