Chapter 1: Market Developments and Status of Recent Panel Recommendations

This chapter contains an update on recent developments related to the IESO-administered markets, and provides commentary on the IESO's responses to recommendations contained in the Panel's previous semi-annual Monitoring Report. In that May 2017 Monitoring Report, the Panel provided its general assessment of the state of the IESO-administered markets, including their efficiency and competitiveness; the Panel maintains the views expressed in that assessment.[1]

1 *Developments related to the IESO-Administered Markets*

The IESO is currently undertaking a number of significant initiatives; they are discussed in the sections that follow.

Market Renewal

In March 2016 the IESO launched the Market Renewal initiative to address known challenges with the existing market design, and create a foundation for a more dynamic energy market to meet future needs. In support of the Market Renewal initiative, the IESO launched the public Market Renewal stakeholder engagement, and appointed a member-based Market Renewal Working Group consisting of 23 stakeholder representatives, including: generators, consumers, energy traders, emerging technologies and a representative of the Panel.

In April 2017 the IESO published a study entitled: *A Benefits Case Assessment of the Market Renewal Project*; the study estimated that Market Renewal would result in efficiency benefits to Ontario (net of implementation costs) totalling approximately $3.4 billion.[2] Electricity customers will be the primary beneficiary of these efficiency gains, with estimated customer benefits of $180 million per year in 2021, increasing to $700 million per year in 2030.

Given the significant potential benefits associated with Market Renewal, the IESO has proceeded, in partnership with the Working Group, to the high-level design phase of the project.

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[1] See pages 9-10 of the Panel's May 2017 Monitoring Report, available at: https://www.oeb.ca/sites/default/files/msp-report-nov2015-apr2016_20170508.pdf

[2] See page vi of the Brattle Group's April 2017 report entitled: *A Benefits Case Assessment of the Market Renewal Project*, available for download at: http://www.ieso.ca/en/sector-participants/market-renewal/overview-of-market-renewal

The goal of the design phase is to consult with stakeholders in order to develop a high-level design for each of the five initiatives the IESO has identified as being part of Market Renewal:

- Single Schedule Market
- Day-Ahead Market
- Enhanced Real-Time Unit Commitment
- More Frequent Intertie Scheduling
- Incremental Capacity Auction

The IESO intends to use stakeholder engagements as the primary vehicle for developing the design elements for each initiative. To date, the IESO has launched stakeholder engagements related to the single schedule market and incremental capacity auction initiatives; both engagements are in the early stages where the scope of the initiative is being defined and fundamental education is being provided. Once this initial phase is complete, the IESO will transition the engagements into the preliminary design phase (expected to commence in Q3 2017), followed by the final decisions phase (Q1 2018 for single schedule market and Q2 2018 for incremental capacity auction).[3]

Ontario's Fair Hydro Plan

The *Fair Hydro Act, 2017*, which came into effect on June 1, 2017, puts in place the framework for giving effect to the government's Fair Hydro Plan initiatives that the government has stated will, among other things, lower electricity bills by 25% on average for all residential customers (many small businesses and farms will also benefit) and thereafter hold increases to the rate of inflation for four years.[4]

The 25% reduction includes the tax-funded 8% rebate that came into effect on January 1, 2017 as well as the impact of removing the cost of certainly electricity-related relief programs from electricity bills and instead funding those programs through taxes.

For residential and small business customers that buy their electricity from their utility, the initial bill reduction was implemented through new, lower Regulated Price Plan (RPP) prices set by the

[3] For more information on Market Renewal, including estimated timelines, consult the IESO's Market Renewal webpage, available at: http://ieso.ca/en/sector-participants/market-renewal/overview-of-market-renewal
[4] See the Government of Ontario's *Ontario Fair Hydro Plan* webpage, available at: https://www.ontario.ca/page/ontarios-fair-hydro-plan#section-0

Ontario Energy Board (OEB) effective July 1, 2017. Other eligible customers (including residential and small business customers that have a contract with an electricity retailer) are seeing their initial bill reduction in the form of a decrease in the Global Adjustment (GA) charges that they would otherwise pay each month. The OEB has set a credit – or "GA modifier" – for that purpose.[5] The new RPP prices and GA modifier will be in effect until April 30, 2018. At that time, the OEB will reset RPP prices and the GA modifier for the May 1, 2018 –April 30, 2019 period in a way that holds increases at the rate of inflation in accordance with the rules set out in legislation.

Except where funded through taxes, the Fair Hydro Plan bill relief is intended to be funded through a refinancing of a portion of the costs of the Global Adjustment.

The Financial Accountability Office of Ontario has estimated that the electricity cost refinancing will defer $18.4 billion in electricity costs, which ratepayers will be required to repay, together with approximately $21 billion in interest costs.[6]

Expansion of the Industrial Conservation Initiative

In April 2017 the Ontario Government expanded the Industrial Conservation Initiative (ICI) to allow certain customers with peak demand exceeding 500 kW to opt into the program.[7] When introduced in 2010, only customers with peak demand greater than 5 MW were eligible to participate; the eligibility criteria was first reduced to 3 MW in 2015, and further reduced to 1 MW at the beginning of 2017.

Each ICI customer's share of Global Adjustment charges is based on their consumption during the five coincident peak demand hours during a year. The expansion of the ICI program will most likely shift additional Global Adjustment costs to lower volume Class B customers (such as residential customers), as more ICI customers shift their consumption to minimize their Global

[5] See the OEB's June 22, 2017 report on *Regulated Price Plan Prices and the Global Adjustment Modifier for the Period July 1, 2017 to April 30, 2018*, available at: https://www.oeb.ca/sites/default/files/report-rpp-prices-ga-modifier-20170622.pdf

[6] See page 1 of the Financial Accountability Office of Ontario's Spring 17 report: *An Assessment of the Fiscal Impact of the Province's Fair Hydro Plan*, available at: http://fao-on.org/web/default/files/publications/Fair%20Hydro/Fair%20Hydro%20Plan.pdf

[7] Resources with peak demand exceeding 500 kW but less than 1 MW are eligible to participate in the ICI only if they are part of targeted manufacturing and industrial sectors; all resources over 1 MW may participate. For more information see the IESO's *Global Adjustment Class A Eligibility* webpage, available at: http://www.ieso.ca/en/sector-participants/settlements/global-adjustment-class-a-eligibility

Adjustment charges; [8] however, the full effect of that shift will not be felt by these lower volume consumers in the coming years as a result of the Fair Hydro Plan initiatives described above.

Reduction in Renewable Energy Procurement Targets

In September 2016 the Minister of Energy directed the IESO to suspend the second round of Ontario's Large Renewable Procurement process; cancelling the procurement of over 1,000 MW of wind, solar, hydroelectric and biomass generating capacity.[9] The decision to suspend the procurement process was informed by the IESO's *Ontario Planning Outlook* report, which concluded that Ontario has sufficient generating capacity to meet projected demand over the coming decade.

In December 2016 the Minister of Energy directed the IESO to suspend the remaining 150 MW of renewable generating capacity planned to be procured under the sixth round of the Feed-In Tariff program.[10]

Enabling System Flexibility Stakeholder Engagement

The IESO has identified the need to increase system flexibility in response to the forecast uncertainty associated with wind and solar generators; in June 2016 the IESO launched a stakeholder engagement to explore possible solutions.

In the short-term, the IESO's *2016 Operability Assessment* concluded that the system required 1,000 MW of additional flexibility by 2018; that number has since been revised down to 740 MW in light of the cancellation of the second round of Large Renewable Procurement and the reduced Feed-in Tariff targets.[11]

At its August 2017 stakeholder engagement meeting the IESO's proposed a solution to the short-term flexibility need: increase the Operating Reserve (OR) requirement when potential wind and

[8] For more information on the shifting of Global Adjustment costs amongst groups of consumers, see Chapter 2.
[9] See the Minister of Energy's Letter to the IESO, dated September 27, 2016, available at: http://www.ieso.ca/corporate-ieso/ministerial-directives
[10] See the Minister of Energy's Letter to the IESO, dated December 16, 2016, available at: http://www.ieso.ca/corporate-ieso/ministerial-directives
[11] See slide 18 of the IESO's August 1, 2017 presentation to the *Enabling System Flexibility* stakeholder engagement, available at: http://ieso.ca/en/sector-participants/engagement-initiatives/engagements/enabling-system-flexibility

solar forecast error exceeds the projected availability of flexible resources.[12] By increasing the OR requirement ahead of real-time, the IESO hopes to signal the upcoming need for additional flexibility while increasing the likelihood of committing additional non-quick start resources to provide that flexibility.

The IESO intends to address the long-term need for system flexibility through changes to be developed through its Market Renewal initiative.

[12] *Ibid*, slide 21-27.

2 *IESO Responses to Prior Panel Recommendations*

Recommendation	IESO Response
Recommendation 3-1 *The IESO should take steps to ensure that dispatchable loads are only compensated for the amount of operating reserve they were capable of providing in real-time. More fundamentally, the IESO should explore options for ensuring unavailable OR is not scheduled in the first instance.*	The IESO agrees that market participants should not be compensated for services that they are unable to provide. The Market Rules require all market participants, including dispatchable loads, to maintain accurate dispatch data and respond to IESO dispatch instructions for both energy and operating reserve. The IESO will assess what remedies are available to respond to the Panel's recommendation in 2017. These remedies could include but are not limited to changes to market design through Market Rules or investigations of non-compliance.
Recommendation 3-2 *The IESO should revise the methodology used to set the intertie failure charge to include the congestion rents that an intertie trader avoids when it fails a scheduled transaction for reasons within its control.*	The IESO agrees with the Panel's recommendation on intertie transaction failures; an intertie trader should not benefit by avoiding congestion rents when failing intertie transactions for reasons within its own control. Market Rules are in place that allow for the recovery of congestion rents that have been avoided, or Transmission Rights payments, when the intertie trader fails its transactions for illegitimate reasons. The IESO will consider the structure of intertie failure charges in 2017 and determine an appropriate avenue to address the issue identified by the Panel.
Recommendation 4-1 *a) The IESO should revise the manner in which it allocates disbursements from the Transmission Rights Clearing Account such that disbursements are proportionate to transmission service charges paid over the relevant accrual period.* *b) The IESO should not disburse any further funds from the Transmission Rights Clearing Account until such time that Recommendation 4-1(A) has been addressed.*	The current disbursement methodology of the Transmission Rights Clearing Account is to allocate disbursements to both internal and external loads based upon their share of demand. In 2017 the IESO will initiate a review of the disbursement allocation methodology to ensure it is both consistent with the intent and purpose of the Transmission Rights Clearing Account, and is aligned with current market and system needs. The outcome of the review, which will be completed and communicated to the Panel by the end of 2017, could also inform the Transmission Rights discussions that will take place as part of the IESO's Market Renewal Program. Given that the allocation method is Market-Rule based, the outcome of the review will also inform whether changes to the Market Rule are required. Meanwhile, until the review of the disbursement allocation methodology is completed, the IESO will continue with the semi-annual disbursements, as directed by the IESO Board and as detailed in Market Manual 5.5: Physical Markets Settlement Statements.

Recommendation	IESO Response
Recommendation 4-2 *The IESO should reassess the value provided by the capacity procured through its Demand Response auction in light of Ontario's surplus capacity conditions, as well as the stated preference of the government and the IESO (through its Market Renewal initiative) for technology-neutral procurement at least cost.*	The IESO was assigned responsibility for developing Demand Response (DR) in Ontario in 2013 with a mandate to develop DR to meet system and policy objectives in the short and longer term. Since that time, the IESO has developed a comprehensive work plan to ensure contracted resources are integrated cost effectively into the market. As a result of these initiatives, the annual cost of maintaining DR has dropped by almost 30%, while participation has increased significantly and new innovative approaches are continuing to emerge. In the short term, DR is contributing to the reliability of the Ontario grid as an integrated resource that is dispatched when it is economic relative to other resources. Over the longer term, the IESO agrees with the MSP that a technology-neutral capacity auction is a more cost effective way to procure capacity. The IESO has launched a stakeholder engagement to design such a mechanism as part of the Market Renewal Program. The learnings from the DR auction will help inform the design of a future incremental capacity auction and demonstrate how such a mechanism could work in Ontario. The IESO is also working together with stakeholders through the DR Working Group (DRWG). The IESO and the DRWG are committed to continuously improving the efficiency of the DR auction and working together to assess priorities for 2017. The DRWG work plan includes a number of projects to improve the efficiency of the DR auction, including a review of how DR is activated in the market.

3 *Panel Commentary on IESO Responses*

Recommendations 3-1 and 3-2

With respect to recommendations 3-1 and 3-2, the IESO agreed that the outcomes identified by the Panel were inappropriate. The IESO has committed to assessing potential solutions to these issues in 2017, including potential market design and market rules changes. In both cases, the Panel believes the optimal solution would prevent these inappropriate outcomes in the first instance, rather than relying on after-the-fact payment recoveries or compliance actions.

Recommendation 4-1

The IESO did not comment on the merits of the Panel's recommended changes to the Transmission Rights Clearing Account (TRCA) disbursement allocation methodology, but did commit to reviewing the current methodology; in 2017 the IESO will review the methodology to

ensure it is consistent with the intent and purpose of the TRCA, and aligned with current market and system needs.

The Panel also recommended that the IESO stop disbursing funds from the TRCA until such time that the recommended disbursement methodology revisions were made. In its response the IESO indicated that it will proceed with semi-annual disbursements as detailed in the relevant Market Manual. While the Market Manual dictates when a disbursement is to be made, and in what amount, there is an additional clause that seemingly gives the IESO Board discretion on whether a disbursement is made for a given semi-annual review period.[13]

In July 2017, a month after receiving the Panel's recommendation to temporarily stop disbursements, the IESO disbursed an additional $76 million from the TRCA using the existing methodology.[14] Of the $76 million disbursed by the IESO, $11.3 million was paid to exporters, $9 million of which ought to have been paid to Ontario consumers in the Panel's view.

Recommendation 4-2

The IESO was not directly responsive to the Panel's recommendation; it made no indication that it intends to reassess the value provided by the capacity procured through its Demand Response (DR) auction. The Panel reiterates that the IESO is procuring capacity through the DR auction at a time when additional capacity is not needed. This procurement comes at a significant cost: resources procured through the 2016 and 2017 DR auctions will be paid upwards of $73 million in total.

While the IESO did not address the Panel's primary concern regarding the current value of DR capacity, it is consulting stakeholders about potential changes to the DR activation criteria. The changes being considered could increase the frequency with which DR resources are activated, and better align activations with system needs.[15]

[13] Section 1.6.26 of Market Manual 5.5 states, "The IESO will review the TRCA balance on a semi-annual basis and disburse the surplus funds when the balance exceeds the Reserve Threshold by at least $5M, or as directed by the Board."
[14] See the IESO's June 1, 2017 News Release, available at: http://www.ieso.ca/en/sector-participants/ieso-news/2017/06/transmission-rights-clearing-account-disbursement
[15] For more information see the IESO's July 18, 2017 presentation entitled *Improved Utilization of DR*, available at: http://www.ieso.ca/en/sector-participants/engagement-initiatives/working-groups/demand-response-working-group