Agenda Item Summary

Date of Meeting: February 27, 2019

Presenter: David Short, Director – Power System Assessments

Agenda Item: Meeting Ontario's Capacity Needs After 2019

Purpose of item:¹ Board Education

Executive Summary²:

The IESO will evolve the Demand Respond (DR) Auction starting as early as December 2019 for a 2020 commitment period of capacity. This evolution is in response to the following:

- the Incremental Capacity Auction (ICA) timelines of a 2022 capacity auction for a 2025 commitment period,
- ICA stakeholders' request for an earlier auction mechanism by 2020/21, and
- a need for capacity starting as early as 2020.

The evolution of the DR Auction will take place over several auctions in order to meet Ontario's capacity needs prior to the start of the comprehensive ICA. The evolution of the DR auction will incorporate many of the ICA design features, including a progressive alignment of forward period timing.

Significant Issues, Risks and Opportunities:³

With this evolution approach, we expect to see:

- early learning for both the ICA design team and auction participants as the DR auction evolves, and
- incorporation of any relatively simple and early ICA design



State the purpose of the agenda item: a) Education for a strategic issue, b) soliciting Feedback, or c) a Decision/Recommendation item.

Provide concise summary of issue, identifying why the item is important to the Board, with distilled analysis, and Management's recommendation.

³ Provide concise description of significant issues, risks and opportunities.

decisions into the transitioning capacity auction.

The evolution of the DR auction will not be as comprehensive as the ICA due to the relatively short timelines to adopt new and changing features from today's DR Auction. As such, several anticipated design features of the ICA will not be present in this transitional capacity auctions, and therefore, will result in a less robust mechanism to support reliability and market efficiency.

Key project risks include sufficient staff to support the project, gaps in design and/or testing due to the compressed timelines, stakeholder support and preparedness, and a stable regulatory environment.

Materials⁴: Presentation

Materials (memo, slides, and reports) are to be concise, providing brief analysis of salient points, risks/opportunities, and Management's recommendations. If detailed report/ background information is necessary, it should be provided in an appendix with specific direction to key sections.

Meeting Ontario's Capacity Needs After 2019

For the IESO Board of Directors

David Short, Director – Power System Assessments

February 27, 2019



Meeting Ontario's Capacity Need (1 of 2)

- For the past two years, the IESO has been working with stakeholders to develop a comprehensive Incremental Capacity Auction (ICA)
 - The ICA will provide, in the long-term, the most effective and efficient solution to meet Ontario's future capacity needs
 - In response to stakeholder feedback, the IESO is now targeting a late-2022 auction to address Ontario's summer 2025 capacity need
- Ontario has an opportunity to introduce additional competition to address emerging capacity needs



Meeting Ontario's Capacity Need (2 of 2)

- IESO will evolve the Demand Response (DR) Auction starting as early as 2019 for a 2020 commitment
- We will...
 - benefit from earlier ICA stakeholdering and design discussions
 - begin the transition towards the ICA
 - increase competition by enabling existing Ontario dispatchable generators, capacity imports and other resources to compete with DR to meet Ontario capacity needs in a regular auction cycle
 - engage stakeholders and be mindful of timelines and capacity needs



What is Needed Today and Tomorrow?

- Evolving the DR Auction to secure / acquire capacity for 2020-24:
 - Should be consistent with Market Renewal Program (MRP) principles
 - Align forward period to ICA design over time
 - At a minimum, the first step in the evolution should enable existing dispatchable resources to compete – recognizing cost and benefit in the given timelines. (i.e., demand response, noncontracted generators, imports, etc.)
- ...until the comprehensive ICA is implemented



Next Steps

- Evolve the DR Auction in Q4 2019 to obtain capacity for 2020 and onwards:
 - Continue to transition the auction to improve efficiency and enable more competition among various resources
 - Consider cost, risk, resourcing and schedule for proposed mechanism
- Engage with stakeholders on design, leveraging comprehensive ICA project design
- Develop, design and begin change implementation including changes to:
 - Market Rules, Market Manuals, registration information system,
 IESO reporting, settlement tools, etc.
- In Q3 2019, the IESO will update Ontario capacity need for 2020+



Market Design and Operating Principles

The IESO's Markets will continue to evolve consistent with the principles of:

- competition,
- transparency,
- certainty,
- efficiency, and
- implementability



Appendix



Proposed Timelines for DR Auction Evolution*

HIGH LEVEL TIMELINE: EVOLUTION OF DR AUCTION = DR Forward Period = ICA Forward Period (note: ICA auction starts at Q4 2022, supporting 2025 May commitment period) = Commitment Period 2020 2021 2022 2019 2023 2024 2025 2026 1st Half 2nd Half 1st Half 2nd Half 1st Half 1st Half 1st Half 2nd Half 2nd Half 1st Half 2nd Half 1st Half 2nd Half 1st Half 2nd Half 2nd Half Finish 2020 Summer 2020 Winter FP = 5 months Tue 19/02/12 Thu 26/12/31 2021 Forward Period 2021 Summer 2021 Winter FP = 11 months 2022 Forward Period 2022 Summer 2022 Winter FP = 17 months 2023 Forward Period 2023 Summer 2023 Winter FP = 22 months 2024 Forward Period 2024 Summer 2024 Winter FP = 28 months 2025 Forward Period 2025 Summer 2025 Winter FP = 30 months 2026 Forward Period FP = 36 months 2027 Forward Period FP = 42 months **Auction for Auction for** Auction for Auction for **Auction for** 2022 2024 2020 2027 2025 2020/12/03 2021/12/08 2019/12/01 2023/10/17 2022/11/01 **Auction for Auction for** Auction for 2023 2021 2026 2020/06/02 2021/06/07 2023/05/01

Assumptions:

- 1) Auctions take place approximately bi-annually until forward period = 3.5 yrs.
- 2) First ICA takes place by Q4 2022.

*The details presented are for illustrative purposes only and are subject to change during detailed design



Enabling Resources*

Import timing depends upon enabling agreements with neighbouring jurisdictions

Resources:

- Demand response
- Existing (off-contract) dispatchable resources
- System backed imports

ICA commences

All resources able to participate in IESO Administered Market



- Demand response
- Existing (off-contract) dispatchable resources

Only resources that can be enabled due to tight timelines for 2019 auction

- Existing (off-contract) dispatchable resources

- System backed imports
- Resource uprates
- Resource backed imports
- Self-scheduling resources

Additional procedures may be needed to enable uprates and self-scheduling resources

*The details presented are for illustrative purposes only and are subject to change during detailed design

Key Risks

- Internal staffing to support design and development
- External stakeholder support/preparedness
- Regulator certainty
- Design/testing gaps due to compressed timelines
- ICA availability for 2025 commitment
- Neighbouring jurisdiction support for capacity imports

