

Market Renewal Key Messages and Q&As

March 8, 2017

Key Messages

- Ontario's electricity market was designed in the late 1990s and introduced in 2002, when the electricity landscape looked very different from today. The elimination of coal, integration of distributed resources like wind and solar, and growing role of the consumer has dramatically changed the dynamics of Ontario's electricity system.
- These and other investments in existing generation, like nuclear and hydro, mean that Ontario is now in a stable supply situation that is expected to continue until the mid-2020s, making this an opportune time to ensure the province has an efficient, cost-effective and reliable energy system.
- Market Renewal is a collaborative effort between the IESO and sector participants, including consumers, to pursue enhancements to Ontario's electricity market that will address inefficiencies and lay a foundation that will prepare us for the electricity sector of tomorrow.
- The draft Market Renewal benefits case shows potential for cost savings that will be realized by both consumers and generators. Cost savings are achieved through the better utilization of existing assets, greater competition among resources, a reduced need to build new resources, and a more flexible procurement process that will better reflect system needs.

1. What is Market Renewal?

Market Renewal is a collaborative effort between the IESO and sector participants, including consumers, to pursue enhancements to Ontario's electricity market that will address inefficiencies, put downward pressure on electricity costs, and lay a foundation that will prepare us to meet future electricity needs as the sector evolves.

The project will result in more efficient scheduling of generators to meet demand, market prices that better reflect system conditions, the introduction of annual capacity auctions to have more competitive and flexible resource procurement, and changes to help meet emerging operability needs, such as more frequent scheduling of energy imports and exports.

The draft Market Renewal benefits case shows potential for 3.4 billion dollars in cost savings that will be realized by both consumers and suppliers.

2. What are the benefits of Market Renewal?

Market Renewal will address known market inefficiencies with our current market design and lay the foundation for a more dynamic market place in the future, leading to lower costs for consumers and new opportunities for market participants.

The draft Market Renewal benefits case shows potential for \$3.4 billion in efficiencies that will be realized by both consumers and suppliers. Cost savings are achieved through the better utilization of existing assets, greater competition among resources, a reduced need to build new resources, and a more flexible procurement process that will better reflect system needs.

3. What do you mean by more efficient scheduling of resources?

One Market Renewal initiative involves implementing a financially-binding day-ahead market. This would lock in more resources day-ahead, creating more certainty for the IESO and market participants as we move into real-time operation of the grid. The current system of having more resources committed closer to real-time can lead to inefficient outcomes when we must react to larger fluctuations in supply and demand than expected. This can be inefficient if, for example, we need to start up and compensate a generator for longer than it is needed.

4. What do you mean by market prices that better reflect system conditions?

All jurisdictions have infrastructure constraints, like transmission line limits, that must be considered when generating energy to meet demand. Right now in Ontario, the scheduling of

generation to meet demand could more efficiently reflect system limits. After the lowest cost resources are selected to produce the energy Ontario needs, the IESO then accounts for transmission constraints and makes adjustments that sometimes results in the use of additional more expensive resources while letting others who were economic sit idle. Market Renewal will more efficiently result in system constraints and price being considered at the same time.

5. What are capacity auctions?

Annual capacity auctions would establish a level playing field for all resources to compete to make sure Ontario has the resources it needs to meet demand all year round. Capacity auctions result in a more dynamic market, increased transparency around the cost of capacity, and allow for greater innovation in the electricity sector.

Additional information:

The province currently secures new capacity by signing long-term contracts with generators. This approach has been instrumental in ensuring reliability over the years. Yet, it is also clear that electricity demands are changing – with economic and technological change influencing the way consumers use electricity. Long-term contracts alone cannot provide the flexibility needed to match changes in demand and supply year over year.

Jurisdictions around the world have implemented open auctions that allow all types of resources to compete and meet the year round demand for electricity – and with much success. In these markets, system operators typically secure resource needs for shorter periods relative to long term 20 year contracts. This approach provides more flexibility to efficiently respond to changes in demand year over year. For suppliers it means there is a regular and reliable mechanism to get paid to be available to meet Ontario’s needs. For consumers it ensures that resources are being secured at lowest cost.

6. What is the cost of Market Renewal?

The draft Market Renewal benefits case estimates that the cost of implementing Market Renewal could be around \$190-300 million, which would yield a net benefit of around \$3.4 billion from 2021-2030. These estimates are draft and subject to change based on design and implementation decisions that have yet to be made with stakeholders.

7. What are the inefficiencies with the current electricity system?

Inefficiencies with the current market have been identified over the years through the work of the Market Surveillance Panel, the Electricity Market Forum, IESO studies, and stakeholder input. While the IESO and its stakeholders have worked together over the last decade to incrementally improve different aspects of the market, it is apparent that more foundational

market changes are necessary to meet the very different circumstances of today and tomorrow's electricity marketplace.

Inefficiencies will be addressed through changes to how we commit resources in the day-ahead and real-time timeframes, as well as through competitive capacity auctions and by addressing emerging operability needs.

8. The Market Surveillance Panel says there has been gaming of the market. Has there been gaming?

Of all of the Market Surveillance Reports that have been released over the years—and there has been close to 30 released to date—only two [CHECK] have identified gaming activities. In both cases, the IESO took the appropriate action to recover funds and in one case to penalize the company responsible.

In addition to supporting the work of the Market Surveillance Panel, the IESO's Market Assessment and Compliance Division monitors Ontario's electricity market on an ongoing basis, and fosters compliance with the market rules. That compliance and enforcement function was strengthened in 2014 with new market rules, and the IESO has beefed up its enforcement staff accordingly.

9. Why hasn't the IESO implemented Market Renewal sooner?

Since Ontario's electricity market opened in 2002, the sector has worked together to address some of the issues with the initial design. But the work of the Market Surveillance Panel, the Electricity Market Forum, past IESO studies and stakeholder input has made it clear that more band-aids aren't the answer – it's time to address the fundamentals.

The IESO recently introduced an annual demand response auctions – which is really a precursor to a capacity auctions. The IESO worked with demand response providers to transition them from contracts into the market to help drive down costs and better integrate demand response into our resource mix. The first auction took place in 2015 and was a very successful, with great participation and low-cost results. The prices for the second auction in 2016 were 12 to 17 percent lower than those achieved in 2015.

Proponents included high-volume, transmission-connected industrial, commercial and institutional users, as well as local distribution companies and consumers whose facilities are connected to low-voltage distribution systems and whose contributions are managed by an aggregator.

For the first time, residential homeowners, participating through an aggregator were eligible to take part in the auction and were successful in being selected.

10. When will Market Renewal be complete?

The IESO will be educating and working with stakeholders on the key design concepts for the various initiatives throughout 2017. Timelines beyond 2017 have yet to be finalized and are subject to change based on design and implementation decisions to be made with stakeholders.

11. How much will consumers save from Market Renewal?

The IESO expects that the efficiencies from Market Renewal would save consumers some 3.4 billion dollars from 2021-2030. That's 3.4 billion dollars less than consumers otherwise would have to pay.

Commented [AD1]: Are the 3.4 efficiency and the consumer savings less?

The exact timing and magnitude of cost savings will largely depend on the detailed design and implementation of the Market Renewal project.

Additional information:

The draft Market Renewal benefits case estimates a baseline net savings of \$3.4 billion (net present value) over a ten year period from 2021-2030. These savings represent a net efficiency benefit, meaning the total commodity cost of electricity (ie. energy, Global Adjustment and uplifts) is reduced by that amount. The majority of savings are expected to flow to consumers, while the rest would flow to other market participants.

12. When will consumers start realizing the savings from Market Renewal?

The IESO will work with stakeholders on the key design concepts for the project throughout 2017, after which the IESO will have a better understanding of the timing. However, we expect that consumers could begin to realize the efficiency savings in 2021.

13. How will savings from Market Renewal be realized?

The draft Market Renewal benefits case shows potential for cost savings that will be realized by both consumers and suppliers. Cost savings are achieved through the better utilization of existing assets, greater competition among resources, a reduced need to build new resources, and a more flexible procurement process that will better reflect system needs.

Over half of those savings would come from using capacity auctions to procure new resources, while the remainder comes from lower production costs through the energy and operability work streams.

14. What do stakeholders mean when they say they want less political interference?

Stakeholders and their investors have expressed that they want some certainty when making business decisions. Market Renewal will include evolving the wholesale electricity market and adopting new procurement practices through the introduction of an incremental capacity auction to competitively and efficiently acquire resources. Stakeholders have suggested that they are seeking long term certainty in the use of a capacity auction mechanism as they make investment decisions.

At the same time, annual auctions provide greater flexibility in meeting system needs and help avoid the cost and risk of locking in resources for extensive periods when they might not be required.

15. Have the government's procurement methods under the Green Energy Act been a failure?

Ontario's electricity market was designed in the late 1990s and introduced in 2002, when the electricity landscape looked very different from today. The elimination of coal, integration of renewables, increase in distributed resources, and growing role of the consumer has dramatically changed the dynamics of Ontario's electricity system.

Ontario is now in a stable supply situation that is expected to continue until the mid-2020s, making this an opportune time to consider and implement needed market design changes.

16. Is Market Renewal the result of government direction?

Market Renewal is an IESO initiative to prepare Ontario for the electricity sector of tomorrow. To accomplish this, the IESO and its stakeholders are pursuing fundamental and enduring changes to Ontario's electricity market that will address known inefficiencies and put downward pressure on electricity costs.

Background:

Ontario's electricity market was designed in the late 1990s and introduced in 2002, when the electricity landscape looked very different from today. The elimination of coal, integration of renewables, increase in distributed resources, and growing role of the consumer has dramatically changed the dynamics of Ontario's electricity system.

Inefficiencies have been identified over the years through the work of the Electricity Market Forum, the Market Surveillance Panel, IESO studies, and stakeholder input. The IESO and its stakeholders have worked together to improve different aspects of the market, but more fundamental changes are required to address remaining inefficiencies.

Ontario is now in a stable supply situation that is expected to continue until the mid-2020s, making this an opportune time to consider and implement needed market design changes.

17. Does this mean more foreign private sector companies in Ontario?

The changes that we are looking at don't favour either the public or private sector. We deal with private or public companies on a regular basis. We don't play favourites. The new rules would maintain the level playing field we currently have.

18. Could you use capacity auctions to replace nuclear plants?

The IESO intends to implement a capacity auction for incremental needs that may arise beginning in the early 2020s. The nuclear facilities in Ontario either already have long term contracts (Bruce) or are regulated by the OEB (OPG) and wouldn't be likely to participate.

19. If Ontario is going to be technology agnostic, doesn't that mean we could see the return of coal?

In 2015, the Ontario legislature passed legislation banning the use of coal to generate electricity in the province. Any use of coal would require a change in the law.

20. But we could see more natural gas plants.

As I said before, we don't expect to need any additional generating capacity until the mid-2020s, so that question is bit hypothetical. However, a capacity auction would operate within whatever policy constraints were in place at that time.

For example, a cap-and-trade emissions trading system is in place that has put a price on emissions. So, any natural gas facilities will have to pay for any GHGs they emit, and the government's Climate Change Action Plan commits the province to gradually reduce overall emissions of GHGs in the future.

21. What does the Minister mean when he said there was sub-optimal siting and uncompetitive pricing and heightened community concern?

I don't want to speak on behalf of the Minister. But in a report the IESO did in 2013, we made several recommendations that would increase the community involvement in the siting and planning of energy facilities, and the government accepted all of our recommendations.

22. The government has said that it will refinance the global adjustment over 30 years to more accurately reflect the lifespan of generating assets. Should we extend contracts in conjunction?

A recent IESO evaluation determined that extending contracts would result in an overall loss of value to ratepayers. Ontario currently benefits from adequate supply, but future needs are uncertain. Locking in resources for the long-term and ahead of when they are needed can appear to initially provide reliability benefits and planning certainty, but may actually come at a cost to the consumer. Locking in resources will not only stifle innovation in the sector for years to come but also will result in foregoing cost savings that arise from meeting our system needs in a more flexible manner through greater competition.

The IESO is currently working with stakeholders to design and implement capacity auctions to meet Ontario's future incremental capacity needs. Capacity auctions have been implemented by jurisdictions around the world, allowing all types of suppliers to compete to provide capacity – and with much success. In these markets, system operators typically secure capacity for shorter periods relative to long term contracts. This approach provides more flexibility to respond to changes in demand. For suppliers it means there is a regular mechanism to get paid for capacity they can supply to the market. For consumers it ensures that capacity is secured at lowest cost.

23. So there would be no cost savings if contracts were extended?

Based on existing experience through contract negotiations, preliminary IESO analysis, current forecasts of system need, and the evaluation of current drivers of electricity system costs, the IESO finds there would be negligible cost savings while the risks and future opportunity loss would be significant.

24. Did the IESO consider extending contracts as part of the government's rate mitigation effort?

Yes, the IESO provided its analysis.

25. Is there a chance we will be paying for resources twice at the same time if their contracts expire and they are then successful in capacity auctions, while we are still paying through the refinancing of the global adjustment?

Current global adjustment costs that are being refinanced include the cost of establishing the clean and reliable system we have today as well as the cost of establishing a culture of conservation in the province. New, clean generation needed to be built and suppliers were compensated accordingly. The culture of conservation we have established will similarly continue to pay dividends into the future.

Ontario now benefits from a stable supply situation that is expected to continue until at least the mid-2020s. Eventually, capacity auctions will provide a competitive platform for all resources to compete to meet Ontario's incremental capacity needs. For example, these needs could be met by new entrants, demand response, storage, imports, better utilization of existing assets, or traditional resources. It is too early to speculate the timing of future resource needs and which resources will meet those needs.

Commented [AD2]: NTD: market renewal shows capacity auctions beginning in 2020 (in the benefits case, not sure if elsewhere too). How does this gel with our message of being adequately supplied to the mid-2020s?

If pressed:

Current global adjustment costs and future capacity auction costs are for two different things. The global adjustment currently reflects the costs required to incent new, clean generation to be built, in addition to fuel and operating and maintenance costs. Global adjustment costs will now be paid for over a period of time that reflects the lifespan of these resources. It also reflects investments made to establish a culture of conservation in the province.

If or when generating facilities were to participate in future capacity auctions, their costs would reflect the fuel and operating and maintenance costs required to meet future incremental needs.