



## **Ontario Power Conference**

# **Examining the Future Structure of Ontario's Electricity Market: Should Ontario Incorporate a Capacity Market or Alternative Structure Framework?**

**April 15, 2014**

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# What is a Capacity Market? What are its objectives?

- To maintain reliability, power systems must maintain sufficient capacity resources (e.g., generation, demand-response, etc.) to meet peak demand requirements plus reserve margins (together referred to as a resource adequacy requirement (RAR))
- Under traditional U.S. utility regulation, RARs are met by Load-Serving Entities (LSEs) by holding portfolios of resources (i.e., own, bilateral contracts, etc.) to meet their power system's reliability needs
- Supplementing LSE obligations, Capacity Markets are mainly a U.S. electricity market restructuring concept administered by northeastern ISOs (NYISO, ISO NE, PJM), where these markets are auctions to provide participants with signals and commitments to maintain their resources and afford more lead-time and certainty for investment in new resources with the primary goal of meeting applicable RARs at just and reasonable prices while not unduly discriminating or preferentially selecting specific resources

# How does Ontario ensure capacity to meet its RAR?

- Since Ontario is a member of the Northeast Power Coordinating Council (NPCC) and NPCC is a member of the North American Electric Reliability Corporation (NERC), Ontario must meet reliability standards set by NERC
  - ✓ Power systems must maintain sufficient capacity resources (e.g., generation, demand-response, etc.) to meet peak demand requirements plus reserve margins (reserve margins typically around 120% of peak demand)
  
- Ontario does not have an explicit mechanism to meet its RAR
  - ✓ Ontario meets its RAR through a mixture of existing resources and Government policies (e.g., Long-Term Energy Plan) driving procurement activities the Minister of Energy directs the Ontario Power Authority (OPA) to undertake, supplemented by forecasts (e.g., IESO 18-month forecasts)
  
- Other jurisdictions meet their RARs through vertically integrated utilities and LSEs supplemented by contracting initiatives and/or Capacity Markets
  - ✓ Capacity Markets aim to ensure sufficient capacity exists to meet RARs

# Why is the IESO planning on exploring development of a Capacity Market?

- In Power Advisory's opinion, IESO is exploring potential development of a Capacity Market for the following reasons
  - ✓ Explicit mechanism to ensure Ontario meets its RAR
  - ✓ Alternate mechanism to lessen reliance on Ministerial Directives to the OPA resulting in execution of procurement contracts
  - ✓ Alternate design to procure resources more competitively with tighter linkages to integrating procured resources into the IESO wholesale electricity market
  - ✓ Explicit mechanism valuing different resources (e.g., generation by fuel types, demand-response, emerging technologies, imports, etc.) within a single procurement process
  - ✓ IESO Electricity Market Forum report recommended exploration of market-based capacity mechanisms
  
- Previous initiatives exploring development of a Capacity Market through the IESO's Market Evolution Program (2003-2005) and the Ontario Government's Market Design Committee (1998-1999)

# Key points likely to be worked through IESO's Capacity Market stakeholder consultation

- IESO held an Information Session on April 8, 2014 discussing
  - ✓ Why Capacity Markets exist and their objectives
  - ✓ Scope of Capacity Markets in other jurisdictions (e.g., NYISO, ISO NE, PJM)
  - ✓ IESO plans for additional and technical Capacity Market consultations
  
- After April 8, IESO will launch additional consultation to explore potential IESO development of a Capacity Market and/or alternate IESO mechanisms to procure capacity
  
- It will be important for stakeholders to participate in IESO's Capacity Market consultations
  - ✓ Potential changes to wholesale market placing new obligations and requirements on market participants (e.g., generators, demand-response, importers, etc.)
  - ✓ Potential changes to IESO Market Rules re-opening OPA Contracts
  - ✓ Potential for less OPA procurement and contracting in the future

# Key points likely to be worked through IESO's Capacity Market stakeholder consultation

- In Power Advisory's opinion, the following key points will form the scope of the IESO's Capacity Market consultation, but not limited to
  - ✓ Need for an explicit mechanism to ensure Ontario meets its RAR
  - ✓ Efficacy of existing Capacity Markets and lessons learned
  - ✓ Identifying differences in Ontario's electricity market policies, structure, design and rules when compared to other jurisdictions, and how these may drive, or not drive, development of a Capacity Market
  - ✓ Reconciling existing commercial arrangements of contracted resources and rate-regulated resources for potential participation in a Capacity Market, and what resources will participate in a Capacity Market
  - ✓ Design details regarding obligations Capacity Market participants will have within the wholesale market, and design details IESO will set for capacity obligations from different resources and participants, including auction design
  
- Above points are extremely complicated and technical, because of significant amounts of contracted and rate-regulated generation, solutions to address points will be even more difficult to work through and resolve

# Points/issues for consideration regarding potential impacts to OPA Contracts

- OPA Contracts have potential to be re-opened if IESO approves changes to their Market Rules to implement a Capacity Market or similar (e.g., capacity products without an explicit Capacity Market)
  - ✓ Whether and which OPA Contracts get re-opened will depend on which resources will be obligated to participate in the Capacity Market or similar
    - Only IESO market participants (e.g., dispatchable generators) will be impacted if such changes are made in the future, which mainly captures all transmission-connected resources (i.e., distribution-connected resources do not need to, and typically do not, register as IESO market participants)
  
- If IESO approves rule changes to implement a Capacity Market, OPA Contracts are not consistent how contract amendments will be handled
  - ✓ Although Power Advisory is of the opinion that OPA will want consistency with contract amendments, therefore will likely attempt to amend all applicable contracts to create uniformity

# Scorecard: Capacity Markets vs. Ontario Contracting Framework

	Capacity Market	ON Contracting Framework
Reliability: day-to-day and multi-year	✓✓	✓
Explicit RAR Mechanism	✓✓	✓
Administrative Pricing	✓	✓
Capacity Valuation/Price Signals	✓✓	✓
Ability to Secure Resources	✓	✓✓
Cost Effectiveness/Ratepayer Impact	✓✓	✓
Diversity of Resources	✓	✓✓
Supports Specific Government Policies (e.g., renewables)	✓	✓✓
Financing New Investments	✓	✓✓
SUMMARY	13	13



# Additional considerations going forward

- Centralized Capacity Markets are contentious
  - ✓ U.S. Federal Energy Regulatory Commission (FERC) held a technical conference in September 2013 to consider how Capacity Markets support procurement and retention of resources to meet power system RARs (see FERC's staff report at <http://www.ferc.gov/CalendarFiles/20130826142258-Staff%20Paper.pdf>)
  
- In addition to exploring potential development of a Capacity Market, IESO may be making future changes to the wholesale electricity market that would trigger additional re-openers to OPA Contracts
  - ✓ See Market Development Planning Project considerations at <http://www.theimo.com/Documents/consult/sac/sac-20140326-Market-Development-Planning-Project.pdf>
  - ✓ Any Capacity Market must work in conjunction and integrated with the IESO wholesale energy and ancillary services markets