

IESO Market Development Planning

Stakeholder Advisory Committee Meeting

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- Outline rationale for market development planning and feedback from SAC
- Review market development planning framework (objective, purpose, etc.)
- Discuss principles and IESO assessment of focus areas that will guide market development planning
- Review ongoing and planned initiatives that will be included in the market development plan
- Discuss timeline for obtaining input

- IESO launched the Electricity Market Forum in 2011 to address the future role and development path for the IESO-administered markets
- The work of the Forum resulted in a number of recommendations to review aspects of the market in 2013 and 2014, with possible implementation of changes in 2015 and beyond

- One of the IESO's strategic priorities for 2014-2016 is to develop a longer term plan of initiatives for the Ontario marketplace
 - Stakeholders have identified the need for a clearer picture of the IESO market development initiatives and the broader goals for improving the marketplace
 - IESO would like to enable stakeholders to provide advice on the priorities, scope, timing and dependencies of market development efforts

- General support for a plan that helps stakeholders have a better sense of IESO direction on market development
- Emphasis on having a clear purpose, building on the work of the Market Forum and working within the context of government policy
- Studies and initiatives to address the Electricity Market Forum recommendations, as well as those underway by other sector stakeholders, should be considered as input to the process
- Impact of contract arrangements must be considered when assessing the expected costs and benefits of market development initiatives
- Guiding principles for market development should include market efficiency/market based solutions, transparency, cost control/cost effective solutions, alignment with system needs
- Fewer principles preferred, principles of the Electricity Act may be appropriate

IESO action plan:

- Ensure the scope of cost benefit analysis considers:
 - the interplay between existing contracts and proposed changes to market rules or design and, where applicable, the possible requirement for contract changes; and
 - the impact of proposed changes (market rules/design and possibly contracts) on all affected stakeholders, including different consumer groups, generators and the various contract holders
- Seek feedback from contract holders and the OPA regarding the possible interplay and the requirement for contract changes

- SAC is an appropriate body to provide input into market development planning, along with other entities
- Provide additional opportunities for different stakeholder groups to provide input and discuss issues particular to their sector
- Align timing with IESO business planning process to ensure input can be considered in business plan
- Bring information on market development initiatives forward as soon as possible

What Others Are Doing

- ISO-NE: publish the Wholesale Markets Project Plan each year describing key market initiatives underway and planned for the upcoming three years to ensure an efficient and reliable electricity system in New England
- MISO: Market Vision Workshop intended to establish a repeatable process for identifying, evaluating, prioritizing and communicating MISO's market development activities that align with MISO's Strategic Plan
- NYISO: Strategic Plan outlines the Vision, Mission, Guiding Principles, and Core Values under which the NYISO will operate over the next five years, and defines the company's strategic objectives and initiatives for that time period

- To identify, evaluate, prioritize and communicate IESO market development initiatives and facilitate alignment with the IESO, stakeholder priorities and government policy
- Expect to revisit planning annually to allow stakeholders to provide advice on changes to priorities, scope, timing and dependencies of potential market development initiatives

Market Development Objective

- Sets out the overall purpose of improving the electricity market

Guiding Principles

- These outline what changes in market design should be seeking to achieve

Focus Areas

- These identify general areas where there are opportunities to enhance market design consistent with the guiding principles
- Will change over time and should be reassessed periodically to reflect current priorities and progress

Market Development Plan

- Identifies initiatives designed to realize opportunities over the next 3-5 years, including **assessments** that may recommend changes and **design projects** that deliver change
- Provides a timeline for planned and potential initiatives

Objective of Market Development

Improve the ability of the electricity market to deliver reliable electricity at the lowest cost, encourage innovation and enable informed decisions by all participants

Changes in market design should:

- ❖ facilitate transparent and efficient price signals
- ❖ create equal opportunity for all technologies and resource types to contribute to meeting system needs
- ❖ use competitive market-based solutions for meeting system needs
- ❖ provide appropriate incentives and minimize barriers for efficient participation in the market for both existing and future participant types and technologies

1. Identified basic system needs required to deliver reliable electricity supply
2. Identified existing mechanisms used to meet these needs
3. Considered findings of recent reviews and MSP recommendations for changes to identify opportunities aligned with the guiding principles
4. Grouped recommendations into themes representing possible focus areas for market development effort – for discussion with stakeholders over coming months

system need	<h2>Real Time Balancing</h2> <p>Ensuring supply equals moment to moment changes in demand across the system.</p>	<h2>Real Time Operations Planning</h2> <p>Preparing for reliable real-time operations by ensuring sufficient resources available to meet energy requirements.</p>	<h2>Resource Adequacy</h2> <p>Ensuring sufficient and appropriate resources available to efficiently meet peak demand and reserve requirements.</p>
current mechanisms	<ul style="list-style-type: none"> contracted regulation services energy market operating reserve market 	<ul style="list-style-type: none"> pre-dispatch import/export scheduling real-time generation commitment guarantee day-ahead commitment process 	<ul style="list-style-type: none"> regulation of OPG payment amounts generation and demand management contracts reliability must-run contracts

Initiated in 2012 and completed by early 2014, these reviews indicated:

- Hourly Ontario Energy Price Review
 - unconstrained price and CMSC sends reasonably accurate and efficient signals for short-term dispatch decisions except in the 10% -15% of hours when congestion occurs
 - certain elements of energy pricing system artificially depress price and inflate uplift cost (i.e., 3x ramp rate, real-time cost guarantee program, import offer guarantee)
- Global Adjustment Review
 - efficiency gains can be realized through allocating a greater share of GA costs (capacity related costs) on the basis of peak demand
- More Frequent Intertie Scheduling
 - more frequent scheduling may improve the efficiency of the market, support operations and increase alignment with neighbouring markets
- Increased Consumer Engagement
 - progress made in other jurisdictions and barriers to consumer engagement in Ontario

Initiated in 2013, ongoing:

- Transmission Rights Market Review
 - Phase 1: review of the confidence level and stabilization design to determine if design had achieved the intended benefits
 - Phase 2: comprehensive review of the design of the TR market to consider whether it is meeting intended objectives and to recommend any potential improvements
- Review of Generation Guarantee Programs
 - review the effectiveness of aspects of existing guarantee programs looking at cost, how it operates and economic efficiency
- Energy Market Pricing System Review
 - potential design alternatives will be compared against the status quo with an overall objective of providing an efficient dispatch and pricing process that produces transparent prices

IESO has the following additional initiatives underway that may influence choice of possible focus areas and timelines

- **Projects identified in the Long Term Energy Plan:**
 - Demand Response initiatives
 - Storage project
 - Capacity Market
- **IESO System Upgrades:**
 - **Market Systems refresh:** interfaces enabling operation of IESO market must be refreshed; this includes day-ahead commitment, economic scheduling of imports day-ahead, and engine that optimizes pre-dispatch/dispatch schedules for the real-time market
 - **Transmission Rights Market system refresh:** the interface that enables operation of the TR market must be refreshed

Completed reviews and MSP recommendations have identified the following possible focus areas that are aligned with the guiding principles:

- identify and reduce barriers preventing demand response and storage from competing to meet system needs
- improve efficiency and transparency of the real-time price signals for meeting operations planning needs
- expand use of competitive, market-based solutions for meeting operations planning and resource adequacy needs

Illustrative Timeline of Initiatives

CURRENT INITIATIVES	2013				2014				2015				2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Market Systems Refresh								Design	Design	Design	Design	Design	Implementation	Implementation	Implementation	Implementation				
Hourly Ontario Energy Price	Design	Design	Design	Design					Design	Design	Design	Design	Implementation	Implementation	Implementation	Implementation				
Intertie Scheduling	Design	Implementation	Implementation	Implementation	Implementation															
Generation Guarantee Programs		Design	Implementation	Implementation	Implementation	Implementation														
Energy Market Pricing									Design	Design	Design	Design	Implementation	Implementation	Implementation	Implementation				
Global Adjustment	Design																			
DR3 Integration			Design	Design	Design	Design	Design	Design												
DR3 Transition						Design														
Demand Response Pilots						Design														
Storage project					Design	Implementation	Implementation	Implementation	Implementation											
Capacity Market						Design	Implementation	Implementation	Implementation	Implementation										
Transmission Rights System Refresh																	Design	Design	Design	Design
Transmission Rights - phase 1	Design																			
Transmission Rights - phase 2									Design	Design	Design	Design					Design	Design	Design	Design

assessment - analysing potential issue or studying potential options
design - designing solution based on a defined scope
implementation - implementing an approved design (finalizing rules, manuals, testing, in service activities)
 note: box with diagonal stripe indicates potential effort dependent on outcome of assessment

Market Development Initiatives

services	Real Time Balancing	Real Time Operations Planning	Resource Adequacy
mechanisms	<ul style="list-style-type: none"> contracted regulation services energy market operating reserve market 	<ul style="list-style-type: none"> pre-dispatch import/export scheduling real-time generation commitment guarantee day-ahead commitment process 	<ul style="list-style-type: none"> regulation of OPG payment amounts generation and demand management contracts reliability must-run contracts
initiatives	<ul style="list-style-type: none"> <i>DR initiatives</i> <i>storage project</i> <i>pricing recommendations</i> 	<ul style="list-style-type: none"> <i>DR initiatives</i> <i>storage project</i> <i>intertie scheduling recommendations</i> <i>GCG recommendations</i> 	<ul style="list-style-type: none"> <i>DR initiatives</i> <i>storage project</i> <i>capacity market</i>

Next Steps and Questions

Date	Outline
March-June	<p>Obtain input from the Committee, other stakeholder bodies and targeted groups to seek alignment on the possible focus areas</p> <p>IESO is seeking input on the following questions:</p> <ul style="list-style-type: none"> • Do the proposed focus areas align with the needs and priorities of your sector? • Are there any dependencies with other changes, studies or industry direction that should be taken into consideration? • Given the focus areas, stakeholder priorities, study recommendations, and ongoing work where do you think IESO should focus its' market development efforts next?
August 20 SAC meeting	Present summary of input received from stakeholders and update timeline of initiatives