

Single Schedule Market Workstream: Responding to Feedback

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SSM is one component in Market Renewal

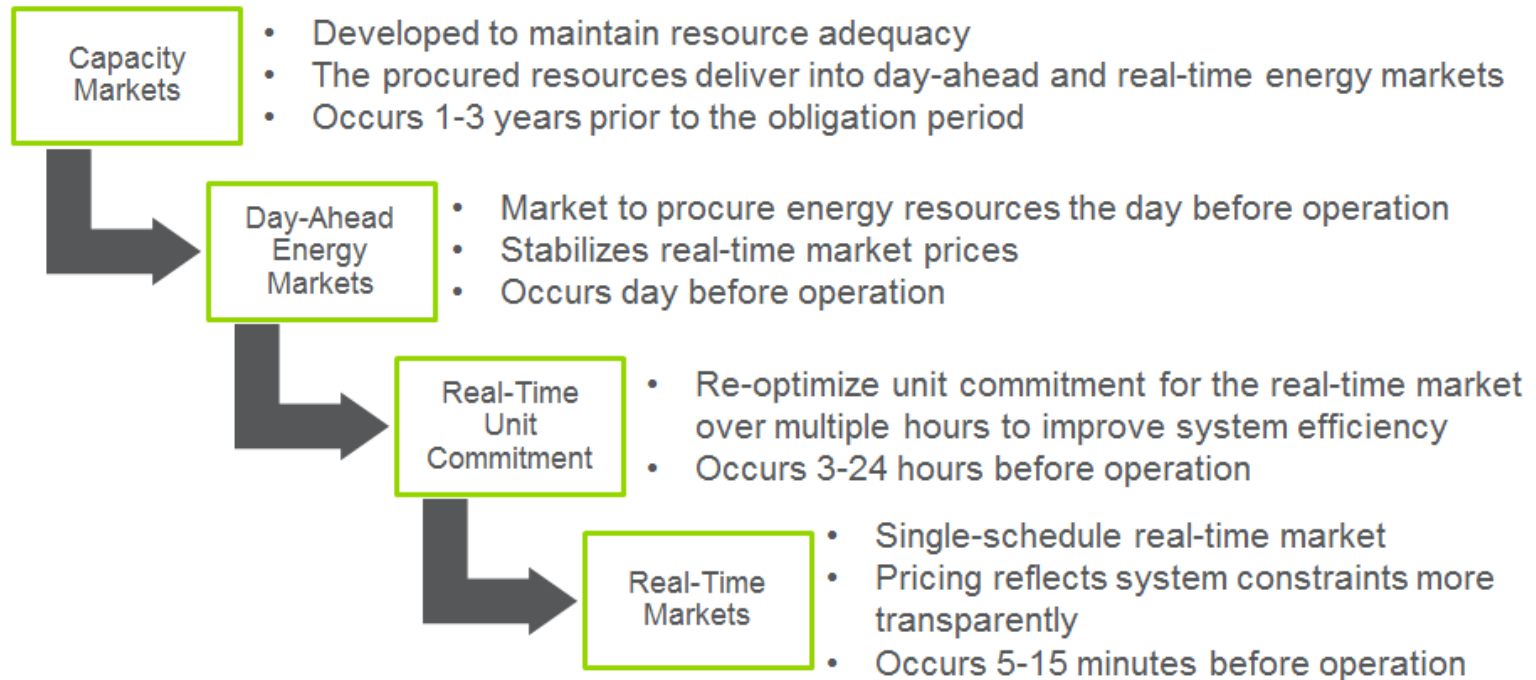
- At the last SSM meeting, questions were asked about the scope
- SSM is one of several Energy workstreams, along with DAM, ERUC and MFIS
- The scope, background and design elements will be introduced for the other initiatives in the Fall
- Earlier this year, Navigant gave primers on SSM, day-ahead and unit commitment, as well as identifying linkages between them

<http://www.ieso.ca/en/sector-participants/market-renewal/market-renewal-education-workshops>

Reminder: Education Sessions are still available online!

POWER MARKET STRUCTURE

The market renewal process includes four types of market structures that are used to procure, commit, and dispatch needed resources.



Energy Workstream

- The Energy workstream consists of three key projects:
 - Single Schedule Market
 - Day-ahead Market
 - Enhanced Real-time Unit Commitment
- Together they will improve the dispatch, commitment and pricing of resources in the energy market
- SSM is the enabling change and hence has to be dealt with first
 - In 2004, IESO introduced a DAM design but it failed largely due to the complexity introduced by our two-schedule energy market
 - Without enabling a single pricing schedule, we will not be able to introduce a DAM and ERUC, as well as any future flexibility and ramping needs

Energy and Operability

- Focus of SSM is to align prices with dispatch
 - Current dispatch is on a locational basis and takes operational and system constraints into account
 - Hence, the optimization and resulting schedules in the real-time market are largely efficient
 - In addition, the inputs and constraints used in real-time constrained schedule are realistic
- However, DAM and ERUC will have to address how inputs and constraints will be dealt with in those initiatives. If any improvements are made through those projects they could indirectly impact (and improve) real-time dispatch and prices
- In addition, the Operability workstream could also assess some of the inputs and constraints
 - IESO is going through an internal review process to assess if there are enhancement opportunities to help with flexibility in the short-term (and before MR is in place)

The Big Picture: Energy and Operability

Operability?

Inputs

Inputs

Inputs

Energy

Dispatch & Price

DAM

ERUC

SSM

Day-Ahead

Pre-dispatch

Real-time

Scope and Next Steps

- The DAM and ERUC engagements will outline *how* the inputs and constraints will be addressed as part of those projects
- Enabling System Flexibility will be integrated into the MR engagement (just like capacity exports)
 - Need to address system flexibility now and before MR is in place, as well as address it in the longer-term in a cohesive manner
 - As part of this engagement and the preceding Operability study, the IESO has already examined its Variable Generation forecast
- IESO has previously committed to hold Market Renewal SE meetings that address overarching issues
- There will be a meeting in the fall that discusses integration of the initiatives
 - Aligned with and building on Navigant's education sessions