

# Outage Management Redesign Consultation Process (SE-109)

August 27, 2014



- IESO Response to Stakeholder Feedback
  - **Stakeholder feedback in bold**
    - *IESO response in italics*
- Software Design Updates
- Forecasts and Assessments for Outage Planning
- SE-109 Schedule During Software Implementation
- Next Steps

- **How will linking be available to external users?**
  - *No ability to establish their own links (API or Web Client)*
  - *IESO-created links would be visible to both the web client and API user, including the ID numbers for the linked outages.*
    - *Note: linked outages are also visible if a 3<sup>rd</sup> party viewer relationship is present on any equipment that resides on the outage request that is linked*
  
- **Links should not preclude a participant from making changes to an outage request.**
  - *The following links would prevent changes if they violated the business rules of the link as follows:*

| Type of Link          | Business Rule Example   |
|-----------------------|---|
| Predecessor/Successor | Outage A (predecessor) must occur before Outage B (successor) |
| Occurs Within         | Outage A must occur with or during Outage B                   |

- **SE-109 members support the enhancement that will shift all periods in a non-continuous (e.g. ramping) profile when adjusting the planned start date of the overall outage request.**
  - *IESO will include the feature in the software design*
- **How will the software manage actual start and end times on non-continuous profiles?**
  - *IESO is reviewing this with the vendor and will provide an update at the meeting based on the following example:*
    - *Period 1 = 08:00 to 10:00 = Derate to 100 MW*
    - *Period 2 = 10:00 to 12:00 = Derate to 80 MW*
    - *Period 3 = 12:00 to 16:00 = Derate to 70 MW*

- **Identify which state transitions are available to participant vs. IESO users.**
  - *IESO will include this information with the state transition diagram that accompanies the business requirements document.*
- **Outages eligible for 1 Day Adv. Approval (AA) but captured in the 3 Day AA process should not be rejected until the 1 Day AA process.**
  - *The IESO does not support this change for the following reasons:*
    - *Increases IESO assessment churn;*
    - *Software customization would be required for a low risk event (i.e. low probability of low-impact outages being rejected); and*
    - *Negotiate state can be used as an alternative to rejection (i.e. IESO can work with participants to reschedule the outage without affecting priority before the end of the study period).*

- **Outage Reporting for Special Protection Systems (SPS)**
  - **Proposal:** When reporting SPS outages, an equipment description field to provide additional information will also be required after selecting a SPS equipment from a pick-list in order to provide additional information.
  - **Rationale:** Based on the proposal to model SPS as a separate equipment class, Hydro One identified the need to provide additional details when SPS are planned out of service (e.g. partial vs. full SPS functionality).
- **Combining the AVR OOS and PSS OOS constraint codes**
  - **Proposal:** Create an AVR/PSS OOS constraint code for generators to report either the unavailability of an Automatic Voltage Regulator or Power System Stabilizer.
  - **Rationale:** To reduce the number of constraint codes in the software and since the same auto-advance approval rules apply to each facility

- **Revised method for reporting Segregated Mode of Operation (SMO)**
  - **Proposal:** Eliminate the SMO constraint code and add a purpose code called SMO to support identification and tracking.
  - **Rationale:**
    - Hydro One may need to submit outage requests for transmission configurations to support SMO for which the In-Service (IS) constraint code is required. The SMO code would not support this need.
    - SMO requests by generators are typically submitted to start and end in the same day – a condition already supported by the 1 Day Adv Approval lead time validation, making the SMO code somewhat redundant.
    - Any other SMO situations not supported by software validation could be communicated using the Opportunity priority code (zero lead time).

- **Current reports provide the following forecasts to assist Market Participants and IESO in Outage Planning & Coordination:**
  - Expected demand
  - Generation and Transmission Capacity
  - Energy Capability of Generating Facilities
  - Potential Security Related Events
  - Shortfalls

## Reporting Coverage and Publication:

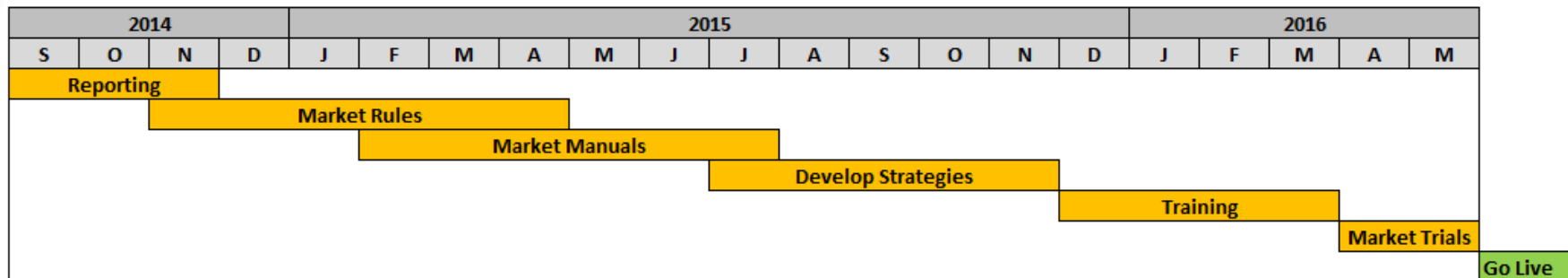
| Report                           | Coverage                      | Due for Publishing                               |
|----------------------------------|-------------------------------|--|
| 18 Month Outlook                 | 18 months starting next month | Quarterly, 5 business days before end of quarter |
| Weekly Security & Adequacy (SAA) | Days 15 to 33                 | Weekly* by 17:00 EST on Mon and Thurs            |
| Daily SAA                        | Days 3 to 14                  | Daily* by 17:00 EST                              |
| Daily System Status Report (SSR) | Day 2                         | Daily* by 15:30 EST                              |
|                                  | Day 1                         | Daily* by 05:30 & 09:00 EST                      |
|                                  | Day 0                         | As required for material changes                 |

**\*also published as required for material changes per Market Manual 7.2**



- Upcoming SE-109 meetings will focus on developing reporting requirements for the redesigned outage management process.
- SE-109 Feedback Received To Date:
  - Notification of outage impacts beyond only resource adequacy
  - Conflict identification and alternate scheduling recommendations
  - Transparency of information with respect to:
    - Decisions for outage rejection/revocation
    - System limits and/or constraints for upcoming and on-going outages (i.e. through a system map or information by zone)
  - Adequacy reports that show approved vs. unapproved outages

- SE-109 members are asked to provide additional feedback considering:
  - What information in the current SAA & SSR reports provide value for outage planning.
  - What additional information would be required in the current reports to improve outage planning under the redesigned process.
- IESO anticipates launching a new stakeholder consultation before the end 2014 to re-design the existing SAA and SSR reporting framework.
  - Reporting information developed via SE-109 for the redesigned outage management process (as per previous slide) will be forwarded to this new project.
  - SE-109 members are still encouraged to participate in this upcoming engagement.



- SE-109 Meetings will continue through to Q2 2016 and focus on:
  - Adequacy and Security Reporting Requirements (Quarterly, Weekly and Daily)
  - Market Rules Development
  - Market Manuals & Undesirable Equipment Combinations
  - Transition Strategy (Outage Requests & Process Activities)
  - Testing Strategy (Market Trails for Vendor Software)
  - Communication Strategy
  - Software and Process Training

- **Sept 5** – Stakeholder Feedback Due
  - Software Design Updates
  - Reporting Recommendations to Support Outage Planning
  - SE-109 Schedule During Software Implementation
- **Sept 19** – IESO Response to Feedback Due
- **Oct 10** – Post Reporting Proposal for the next SE109 Meeting
- **Oct 15** – Next SE109 Meeting

Questions/Comments?