THURSDAY APRIL 22, 2021

Improving Awareness of System Operating Conditions

- Engagement Session #2

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Webinar Participation via Microsoft Teams

Registration Link

- •To interact, use "Chat" function to submit a written question or click on "Raise Your Hand", located in the Participants panel at the top right of the application window to indicate to the host you would like to speak
- •Audio should be muted at all times. To unmute audio, click on the microphone icon in the meeting controls row found at the bottom of the application window
- •This webinar is conducted according to the IESO Engagement Principles



Agenda

- Engagement Objective and Scope
- Introduction: Advisory Notice and Operating State Review
- Summary: Phase 1 and 2
- Phase 1: Finalize
- Phase 2: Explore Details
- Request for Stakeholder Input
- Next Steps



Engagement Objective

The objective of this engagement is to improve stakeholder awareness of system operating conditions so that market participants are informed and have the opportunity to plan and prepare their operations accordingly.



Engagement Scope - Reminder

- In-scope: Review and enhance <u>what</u> the IESO communicates to stakeholders through advisory and operating state notices.
- Out-of-scope: <u>How</u> the IESO communicates to stakeholders through advisory and operating state notices.
 - The mechanism and/or technologies used to communicate to stakeholders is out of scope for this engagement.



Introduction: Advisory Notice and Operating State Review

Today, the IESO informs stakeholders of system and market conditions through Advisory Notices and grid Operating States.

Recent operating events this past summer (e.g. extreme weather) have high-lighted opportunities to improve IESO communication to stakeholders.



Summary: Phase 1 and 2

| | Phase 1 – Enhance | Phase 2 - Revise |
|--|---|---|
| Goal | Enhance situational awareness when the potential for stressed system conditions are more likely to occur. | Provide greater clarity on situational awareness when market participant actions may be needed. |
| Proposed Plan | Add two new advisory notices. Revise advisory notice framework and add new operating state(s). | |
| Engagement | Brief, limited input required from stakeholders. | Longer, more in-depth, input required from stakeholders. |
| Market Rule and/or Manual Changes | Minor internal manual changes. | Market Manual and Market Rule amendments. |
| Market Participant Actions Post Changes | Not required Required | |



Phase 1 Finalize

Add two new advisory notices



Phase 1 – Two New System Advisory Notices

These notices will inform market participants that we may be leading into either an extreme conditions alert* or a capacity shortfall.

The new Advisory notices will go into effect in June 2021.

The IESO will communicate the effective date in the IESO Bulletin and by email to all registered stakeholders of this engagement in advance.

Severe Weather Alert

To be issued when forecasted weather in days 2 to 5 are leading to a potential extreme conditions alert.

Capacity Margin Alert

To be issued when capacity margins are less than 500MW for four consecutive hours or more in days 2 to 10.



^{*} The extreme conditions alert is an existing advisory notice.

Phase 1: Severe Weather Alert

- Message Details
 - Heading: Severe Weather Alert
 - Comment (for illustrative purposes):
 - Extreme hot temperatures are forecasted for <day>
 - Extreme cold temperatures are forecasted in southern/northern
 Ontario for <day>
 - Ice pellets are forecasted in <region> for <day>



Phase 1: Capacity Margin Alert

- Message Details
 - Heading: Capacity Margin Alert
 - Comment (for illustrative purposes):
 - The capacity margin is forecasted to be less than 500 MW on <date> for hour ending <hours> to hour ending <hours>



Questions?



Phase 2 Explore Details

Revise the advisory notice framework and add new operating state(s)



Phase 2: Advisory Notice Framework Revision

Replace current advisory framework with a new framework consisting of three types of advisory notices: Alert, Warning and Action.

Any issued advisory notice will clearly indicate type.

The existing advisory notices will be aligned into the new types. This may also require the addition of new notices for better alignment as we transition through each type.

Alert

 Situational awareness to give time for advanced preparations

Warning

 Potential for future action may be needed

Action

 IESO and/or market participants are taking action



Phase 2: Advisory Notice Examples

• Capacity/Energy Shortfall Forecasted Alert Potential for Load Shedding Warning Load Shedding Initiated Action



Phase 2 – New Operating State(s): Conditions

New operating state(s) are proposed to enhance situational awareness and posture the grid to be resilient when system conditions are stressed. The IESO will issue an advisory notice to notify market participants when changing to a different operating state.

| New Operating States: | Conditions |
|-----------------------|--|
| IT related* | Declared when there are issues and/or outages to IESO applications and/or tools that may affect market participant operations in real-time and does <u>not</u> put the grid at risk. |
| Conservative* | Declared when there is a need to enhance the grid's resiliency due to (potential) stressed system operating conditions. |



^{*}Names to be finalized at a later date

Phase 2: "IT related" Operating State

- Triggers
 - Issues and/or outages to any of the following IESO applications and/or tools:
 Energy Market Interface (EMI), Dispatch Service, IESO Reports Site, SCADA/EMS.
- What does this mean to you:
 - IESO applications and/or tools may not be available to you. As a result:
 - Enhanced monitoring of your operations may be needed.
 - Certain tasks may need to be completed manually.
 - You may need to take and execute verbal instructions from the IESO.



Questions?



Phase 2: Conservative Operating State

- Triggers
 - Extreme temperatures (cold or hot), tight supply conditions.
- What does this mean to you:
 - Non-critical maintenance of equipment may be suspended.
 - Certain planned outages may not proceed.
 - Opportunity outages will not proceed.
 - Equipment already out of service may need to be returned to service.



Questions?



Phase 2: Request for Stakeholder Input

- IT related Operating State
 - What IESO tools/applications do you rely on?
 - What is the minimum duration to an IESO application and/or tool disruption that would impact you?
 - What information do you need from the IESO in this operating state?



Phase 2: Request for Stakeholder Input

- Conservative Operating State
 - What kind of outages would you identify as non-critical?
 - What actions might you take if this operating state is declared?
 - What information do you need from the IESO in this operating state?



Phase 2: Stakeholder Feedback Form

- The IESO is seeking input on today's presented questions.
- A stakeholder feedback form is posted on the engagement <u>webpage</u>.
- Stakeholder feedback is due May 17.
- An IESO response to stakeholder feedback document will be posted in June and discussed during the June engagement days meeting.



Next Steps

| Timing | Engagement Activity |
|---------------------------------------|--|
| May 17, 2021 | Stakeholder feedback due (see engagement <u>webpage</u> for AODA compliant form). |
| June Engagement Days, 2021 (date TBC) | Webinar: Discuss feedback from stakeholders. |
| June, 2021 | Phase 1: Confirm and email effective date to registered stakeholders. |
| Q2 – Q4, 2021 | Phase 2: Multiple iterations of webinars, feedback from stakeholders, response from IESO, and market participant outreach. |
| 2022 | Phase 2: Implementation including market manual, market rule, internal manual amendments. |



Thank You

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