Outage Management Redesign (SE-109)
Feedback & Response on Materials Presented at the July 3, 2014 SE-109 Meeting

Stakeholders were asked to provide feedback on the following materials presented at the July 3, 2014 meeting:

- The proposed 1 Day Advance Approval Criteria Validation for the vendor solution
- The proposed Final Approval in Advance process and feature for the vendor solution
- The proposed Conflict Checking feature for the vendor solution
- The proposed migration strategy for historical, in progress, and future outage requests.

Feedback was received from the following stakeholders:

- Brighton Beach Power
- Gerdau
- Hydro One
- Ontario Power Generation (OPG)
- Portlands Energy Centre

The following pages provide stakeholder feedback in verbatim. The feedback is grouped by the questions that stakeholders were asked to provide feedback on and IESO responses and actions that will be taken are provided in italics beneath each piece of feedback.

1. **Feedback on the proposed 1 Day Advance Approval Criteria Validation for the vendor solution (Slides 10-12).**

Gerdau:

The validation is fine. Can the one day time limit for loads be extended?

The IESO followed up with Gerdau to understand which specific aspect of the 1 Day Advance Approval validation they were referring to. Gerdau confirmed that this refers to relaxing the proposed 'Ancillary Service Provider Out-of-Service (ASP OOS)' constraint code and criteria for load facilities. The IESO is unable to relax these criteria as outages to contracted ancillary services with conditions outside these criteria require additional study time by the IESO.

Hydro One:

These slides describe the type of outages eligible to 1 Day Advance Approval (given that they meet certain criteria). No Hydro One concerns.

Ontario Power Generation:

OPG has no comments on the proposed 1 Day Advance Approval Criteria Validation.

The IESO considers the proposed 1 Day Advance Approval criteria validation approved and will incorporate it into the design document which the vendor will use to develop their software.

2. Feedback on the proposed Final Approval in Advance process and feature for the vendor solution (Slides 14-15).

Gerdau:

This looks like a good solution for loads.

IESO response

Hydro One:

Slides 14-15 describe the outages which will receive Final Approval from the Auto Approval State. Hydro One would still like to see Distribution and Load Equipment added to this list. No other Hydro One concerns.

At this time the IESO does not support incorporating automatic Final Approval in Advance (FAA) for distribution and load equipment as the reliability risk in making changes to grid connectivity without receiving IESO approval just prior to switching requires further consideration. However the software will possess the ability to provide FAA manually, which allows for expansion of the FAA process to other types of equipment outages in the future.

Ontario Power Generation:

The IESO states the following on Slide 15:

> State Transition Rule:
>
> If FAA flag is still present at 00:01 EST on the day the outage starts, the outage will auto transition from Advance Approved to Final Approved.

If the IESO manually unsets the FAA flag after 00:01 on the day of the outage please confirm that the IESO will verbally inform the participant that final approval has been revoked.

Portlands Energy Centre:

If the IESO manually sets or unsets the FAA flag there should be a mechanism to inform the market participant that this has been done.

The presentation states that if the flag is still present at 00:01 EST on the day of the outage the outage will auto-transition from Advance Approved to Final Approved.

a) Could this "auto-transition" time be changed to a time during regular business hours so that day staff can check this?
b) In some cases outages begin at 00:01 EST will these outages receive FAA just as they are beginning?

The IESO agrees with the request to inform the market participant of manual changes to FAA status and proposes capturing this requirement into the applicable market manuals. Market manual changes will be developed and subject to stakeholder review as part of this redesign initiative.

3. Feedback on the proposed Conflict Checking feature for the vendor solution (Slides 16-17).

Gerdau:

We have no issues with this.

Hydro One:

Will the conflict checking rules rely solely on IESO guidelines? A suggestions would be to include dependencies in this algorithm (if, else, or, and statements) rather than a one on one comparison. For example, if a corridor has two transmission lines, and one is out of service, and the other has a hold off, this should not be a conflict (in Hydro One's opinion).

The vendor software has the capability of specifying which outage priorities and constraint codes are subject to conflict checking. The IESO will discuss this capability in more detail at the next SE109 meeting.

Ontario Power Generation:

OPG suggests that the IESO provide a more comprehensive matrix of "undesirable equipment combinations" for discussion at the next SE 109 stakeholder meeting. Also the IESO should provide to participants a final matrix to prior to implementation to assist in outage planning. This matrix should be re-published anytime the IESO makes changes.

On Slide 16 the IESO states the following:

- Auto Advance Approval rules were discussed at the June 4 meeting:
    - Conflict Checking will prevent overlapping outages to the same equipment from receiving Auto AA
    - The outage request would still be accepted for manual advance approval (or rejection/at risk) in the next available process

OPG requests that the IESO provide an example that clearly demonstrates the IESO's interpretation of the above highlighted statement.

The IESO is not able to provide a defined matrix for undesirable equipment combinations at this as they have yet to define. However, the IESO will have the capability to configure what the combinations are and intend to develop them with input from stakeholders prior to software implementation. The IESO agrees that providing participants with this matrix information will be valuable in outage planning and will work with stakeholders in future SE109 meetings on how best to provide this information in a confidential manner.

The IESO will present an example of the highlighted statement above at the next SE109 meeting.

Portlands Energy Centre:

This is a good feature which will prevent undesirable outage request combinations.

Will this feature work to flag undesirable combinations of generator outages and transmission line elements/transformers?

Will this feature flag what time period in an outage is undesirable? For example an outage may last for a week and during this week there may be ½ day where there is an undesirable outage combination. Will this feature flag this time period?

The conflict checking feature will allow the IESO to specify undesirable equipment combinations across all facility types. The IESO is discussing the ability to specific defined time periods for undesirable combinations and will provide an update at the next SE109 meeting.

4. **Feedback on the proposed migration strategy for historical, in progress and future outage requests (Slide 18). Please note that the timeframes presented in the slide deck assume an automatic approach to migration of outage requests. The IESO would not preclude any future outage requests from being manual migrated provided that the market participants are involved in the migration effort.**

Gerdau:

We have no issues with this.

Hydro One:

It should be noted that if the automated migration does not go as planned, the contingency plan is VERY labor intensive for Hydro One.

Ontario Power Generation:

OPG stresses that any "future outages" that are not captured in an automated migration and have to be re-submitted must have their precedent time stamps manually reset to the pre-migration date/time.

Portlands Energy Centre:

As per the presentation the proposed migration strategy will be presented at the next SE-109 meeting on July 30. We look forward to providing our feedback once the proposal is tabled.

We support both the retention of historical outage requests for at least five years and the importing of historical outage request data from the existing solution to the new solution. We also support the retention of time stamps for all future (submitted) outage requests even if they are manually re-entered in the new system.

As discussed at the July 3 meeting, the IESO will plan to perform a transition test to determine how much manual effort will be required to successfully migrate. If a significant amount of manual migration is required, the IESO will assess the effort needed and may require market participants to assist in the effort through outage request resubmission into the new system. Any outage requests resubmitted from the existing to new system would have its priority date (i.e. timestamp) manually retained by the IESO.

5. Other comments.

Brighton Beach Power

I have no problems with the changes.

Hydro One:

The following is feedback from Hydro One with respect to the inclusion of low voltage (LV) capacitors and breaker trip coil tests for Auto Advance Approval (Slide 9).

Hydro One feels breaker trip coil tests should be part of the Auto Advance Approval process, so long as the conflict checking logic ensures a BTCT does not off-load equipment.

Furthermore, it should be noted that not including LV caps in the Auto Advance Approval process will significantly limit the number of "Distribution Equipment" outages which will be eligible for Auto Advance Approvals.

Also, Hydro One is suggesting that these types of outages be deemed low-impact and hence subject to the lead times of 1 Day AA process (allowed to be submitted by 16:00 2 business days out).

Breaker trip coil test (BTCT) outage requests cannot be included in the Auto Advance Approval logic as the new system does not have topology model built in to determine whether or not equipment would be offloaded. This assessment must be performed manually.

As discussed at the July 3 meeting, although low voltage capacitors will not be included in the Auto-Advance Approval logic, they will be deemed low impact and subject to the lead times of the 1 Day Advance Approval process.