

At the May 14 meeting, stakeholders were asked to provide feedback on a preliminary proposal of the Outage Management Redesign. This paper provides a summary of stakeholder feedback received, the IESO response to feedback as well as the details actions and changes being proposed in this revised Outage Management Redesign. This information will be presented and discussed at the June 20 stakeholder meeting. For more information visit the SE-109 stakeholder engagement web page at:

(http://ieso.ca/imoweb/consult/consult_se109.asp).

As a result of feedback received and changes incorporated are reflected in three key areas:

- **Changes to Glossary of Terms**

This revised proposal has resulted in some of the process terms and criteria changing since the May 14 meeting which are outlined in the glossary on the next page. Process criteria are illustrated using charts and calendars that follow the glossary of terms. Terms are presented in alphabetical order within the glossary and are italicized in the accompanying chart and calendar illustrations. Changes since the preliminary draft have been red-lined to illustrate the differences.

- **Mid-Term and Near Term Processes**

The following revised proposal continues to cover two timeframes that support the annual and weekly planning horizons identified by stakeholders. The *Mid-Term* process runs quarterly and addresses annual outage planning activities while the *Near-Term* process features a weekly and daily component that addresses the annual, weekly and daily planning activities.

- **Outage Management Redesign in Line with IESO 18-Month Outlook Process**

The stakeholder engagement (SE-109) progress will ensure that the information received and produced for the outage management process redesign is consistent with that of the 18-Month Outlook process.

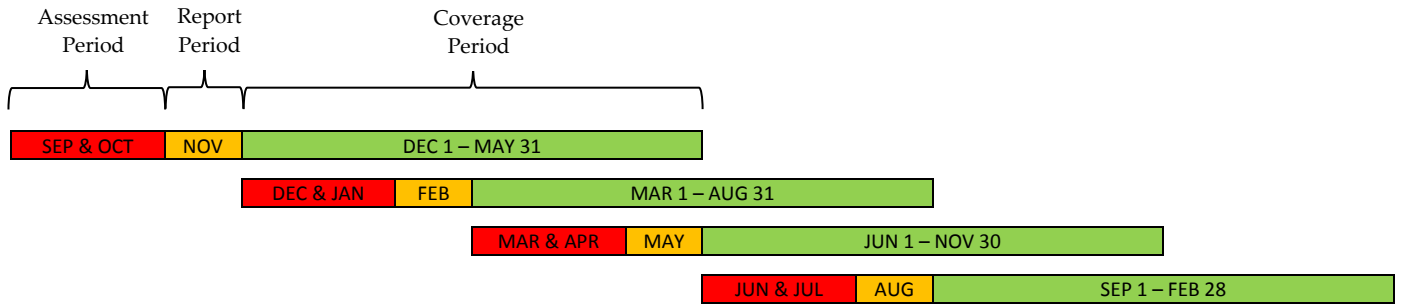
The last section of this proposal outlines the feedback received, the IESO's response and any actions taken as a result of the feedback.

Glossary of Terms

Term	Definition & Potential Example
Advance Approval Mid-term approval	IESO approval for outages confirmed in the mid-term process. Must still receive near-term approval to proceed but provides higher priority than timestamp in the near-term process. Cannot be used for compensation purposes in the event of a subsequent rejection. IESO approvals issued in the day-ahead timeframe for planned outages that meet the submission timelines in the mid-term and near-term processes. The earlier the process they are issued in (i.e. mid-term, near-term weekly etc.), the higher the priority level of timestamp precedence.
At Risk	An outage that does not receive Advance Approval in the mid-term process – will retain its most recent timestamp if rescheduled to occur beyond the first 3 months of the applicable coverage period before the submission deadline of the next mid-term cycle.
Confirmation	Indicates the outage can proceed as planned and requests the IESO assess for advance approval within the mid or near term processes. Confirmation will no longer be a requirement. Submission of an outage prior to the deadline will constitute the participants intent to proceed with the outage as planned. Removing the requirement to confirm also reduces complexity with respect to developing business rules for a new outage management software solution.
Critical Outage	Transmission elements defined within IESO system control orders (SCOs). SCOs define transmission and generation elements whose outages have an adverse impact on system stability limits within the IESO-controlled grid (ICG). ‘Critical’ may be redefined based on stakeholder feedback and IESO feasibility analysis. System elements whose outages have an adverse impact on system stability limits within the IESO-controlled-grid (ICG). They are defined within IESO operating guides called System Control Orders (SCOs), the majority of which are transmission elements 115 kV and above.
Forced Outage	An outage submitted in real-time (Day 0) for equipment automatically relayed out-of-service or manually removed from service due to risk of damage, public safety, or legal issues etc.
High Impact	To be defined based on stakeholder feedback and a volume of outages the IESO can reliably assess with existing resources (i.e. outages with a duration of ≥ 5 days) This was a placeholder term to define the submission criteria for the mid-term process. It is now defined in the redesign proposal.
Near-term approval	IESO approval for outages confirmed in the near-term process. Can be used for compensation purposes in the event of a subsequent revocation or recall. Covered by the term Advance Approval
Non-Critical Outage	Outage requests that do not meet the Critical, Opportunity and Pre-approved outage criteria.

Term	Definition & Potential Example
Opportunity Outage	Outage request that has either been rejected or is late for submission but has been given an unexpected opportunity to accomplish work that would have otherwise been unable to proceed due to system reliability concerns. To be refined following stakeholder feedback and review of application in other ISOs. Stakeholders support the definition and the application is in line with other ISOs such as MISO and ISONE.
Pre-approved Outage	An outage with little to no impact on system reliability and IESO assessment effort. that may also be limited in duration and/or have a recall time of less than 15 minutes. To be refined based on stakeholder feedback and IESO feasibility analysis. Stakeholders support the idea of Pre-approved outages and SE-109 will work to define the criteria prior to implementation.
Report	Adequacy & security assessments produced from the results of the mid-term coordination and approval process. Further analysis required to determine whether to use 18 Month Outlook or newly created reporting vehicle(s). The term is self-explanatory within the redesign proposal. SE-109 will work to define the report(s) supporting the mid-term process prior to implementation.
Urgent/ Emergent Outage	An outage request that cannot respect the submission requirements due risk of damage, public safety, or legal issues etc. An outage submitted at least 1 day-ahead of real-time (Day 0) that cannot respect the submission requirements of the near- term weekly or daily processes due to risk of damage, public safety, or legal issues etc.

MID-TERM QUARTERLY PROCESS



Submission

- The mid-term process is voluntary. The mid-term does not preclude outages from being submitted in the near-term processes.
- All outages that span ≥ 3 days and scheduled to start within the coverage period will be assessed as long as they are submitted by the start of the assessment period.
- Outages that span < 3 days in duration must be flagged for assessment by the start of the assessment period and will only be assessed on a best effort basis in the order of time-stamp precedence
- With overlapping coverage periods, participants have 2 opportunities to submit outages within a 3 month portion of the same coverage period.

IESO Assessment

- Participants are made aware of impactful outages occurring in the coverage period (subject to confidentiality restrictions). Provides an opportunity to address potential issues/conflicts.
- All Outages included in the mid-term process are locked during the assessment period.
 - Participants cannot make changes to the outage unless:
 - the IESO makes a recommendation to do so; or
 - they cancel the outage
 - The lock is lifted after EOB on the last day of the assessment period.
- By the end of the assessment period, the IESO shall:
 - Provide *Advance Approval* (outages receive highest time stamp precedence)
 - Any subsequent changes to the outage other than shortening the duration within the original outage window will reset time-stamp precedence and remove *Advance Approval*.
 - Flag as *At Risk* (outage retains original time stamp precedence)
 - Participants may choose to keep the outage as planned; or
 - Reschedule the outage
 - If the outage is rescheduled beyond the first 3 months of the coverage period and done so prior to the assessment period for the next mid-term cycle, the outage will retain its original time stamp precedence.

Reporting

- Security & Adequacy report(s) for the coverage period are published at the beginning of the report period. The report can be used to guide scheduling decisions for the upcoming near-term process and the next cycle of the mid-term process)

NEAR-TERM WEEKLY PROCESS

S	M	T	W	T	F	S
					1	
ASSESSMENT PERIOD						
← COVERAGE PERIOD						
→						

Submission

- The Near-Term Weekly Process is mandatory for *Critical* outages and outages assessed in the mid-term process. It is voluntary for all *Non-Critical* outages.
- Planned outages must be submitted by EOB on the 3rd Friday (1) prior to the coverage period in which they are scheduled to start.
 - Participants must make a separate request for the IESO to include any *Non-Critical* outages by the near-term weekly submission deadline.
 - Once the near-term weekly submission deadline passes, *Non-Critical* outages cannot be rescheduled to start within the near-term daily process until the coverage period passes, unless they are re-submitted as *Opportunity*, *Urgent* or *Forced* outages.
 - Late submissions for planned *Critical* outages must wait until the next near-term weekly cycle to be considered for *Advance Approval* unless they are submitted as *Opportunity*, *Urgent* or *Forced*.
- If eligible, compensation costs for any outage submitted into the near-term weekly process must be provided by the submission deadline in order to be considered for a compensation claim in the event of revocation or recall.

IESO Assessment

- All outages are locked during the assessment period.
 - Participants cannot make changes to the outage unless:
 - the IESO makes a recommendation to do so; or
 - they re-submit as an *Opportunity*, *Urgent* or *Forced* outage; or
 - they *Cancel* the outage
 - The lock is lifted after EOB on the last day of the assessment period.
- By EOB on the 2nd Friday prior to the coverage period, the IESO shall either:
 - Provide *Advance Approval* (outages receive higher time stamp precedence than those within the near-term daily process)
 - Reject (participants can either cancel or reschedule the outage)
 - May be identified at any time during the assessment period.
 - Outages must be rescheduled within 5 business days in order to preserve timestamp
 - Rejected outages can only be rescheduled once for the purpose of timestamp retention.
 - Revoke mid-term *Advance Approval* (participants can either cancel or reschedule the outage)
 - May be identified at any time during the assessment period.
 - Outages must be rescheduled within 5 business days in order to preserve timestamp

Reporting

- Format and publication as per the existing System Status Reports (SSR) and System Adequacy Assessments (SAA) reporting process.

NEAR-TERM DAILY PROCESS



Submission Requirements

- The Near-Term Daily process is mandatory for all *Non-Critical*, *Opportunity* and *Pre-approved* planned outages
- *Non-Critical* and *Opportunity* outages must be submitted by EOB on the 5th business day prior to the day it is scheduled to start
 - Late submissions will not be accepted unless they are submitted as *Forced* or *Urgent* outages.
 - *Opportunity* outages must be justified and are subject to IESO discretion based on whether a change in system conditions afforded the opportunity with little to no impact on reliability and IESO assessment effort.
- Pre-approved outages must be submitted by EOB on the 2nd business day prior to the day it is scheduled to start
 - Late submissions will not be accepted unless they are submitted as *Forced* or *Urgent* outages.
- If eligible, compensation costs for any outage submitted into the near-term daily process must be provided by the submission deadline in order to be considered for a compensation claim in the event of revocation or recall.

IESO Assessment

- *Non-Critical* and *Opportunity* outages are locked during the assessment period.
 - Participants cannot make changes to the outage unless:
 - the IESO makes a recommendation to do so; or
 - they re-submit as an *Urgent* or *Forced* outage; or
 - they *Cancel* the outage
- By EOB on the 3rd business day prior to the start of the outage, the IESO shall either:
 - Provide *Advance Approval* (outages receive higher time stamp precedence than those within the near-term daily process)
 - If the system condition that afforded an *Opportunity* outage ceased to exist after the *Urgent* outage received *Advance Approval*, the IESO will perform a reliability assessment to determine whether the *Opportunity* outage may still proceed.
 - Reject (participants can either cancel or reschedule the outage)
 - May be identified at any time during the assessment period.
 - Outages must be rescheduled within 5 business days in order to preserve timestamp
 - Rejected outages can only be rescheduled once for the purposes of retaining timestamp

Reporting

- Format and publication as per the existing SSR and SAA reporting process

Outage Priority Sequence (across the entire outage management process)

- Forced Outages → Urgent Outages → Mid-Term Advance Approval → Near-Term Weekly Advance Approval → Near-Term Daily Advance Approval / Opportunity Outages / Pre-Approved Outages
- Submission time-stamp is to used manage conflict resolution between priority types

Actions Taken Based on SE-109 Member Comments and IESO Response on the Draft Redesign Proposal from the May 14, 2013 Meeting

Member Comment	IESO Response	IESO Action
<ul style="list-style-type: none"> All members were in agreement with the coverage periods proposed for the near-term and mid-term processes. 	<ul style="list-style-type: none"> The IESO considers the proposed mid-term and near-term coverage periods approved. 	<ul style="list-style-type: none"> Retained within the redesign proposal.
<ul style="list-style-type: none"> The 14 Day advance approval process should be retained within the near-term process proposal. 	<ul style="list-style-type: none"> The IESO has incorporated the features of the 14 day advance approval process in both the mid-term and near-term <i>Critical</i> processes. The IESO will consider an exception process for inclusion of non-<i>Critical</i> outages into the near-term <i>Critical</i> process. Additional submission allowances may introduce undesirable complexity and increased resource requirements. 	<ul style="list-style-type: none"> The near-term weekly process has been revised to include both <i>Critical</i> and <i>Non-Critical</i> outages. The assessment period has also been advanced by 5 calendar days, allowing for near-term approvals to be issued between 10 and 16 days.
<ul style="list-style-type: none"> What will happen to the existing outage submission timelines (3 months for outages greater/equal to 5 days and 33 days for outages greater/equal to 4 hours in durations)? 	<ul style="list-style-type: none"> These submission requirements support the existing 18 Month Outlook process and are currently under review. 	<ul style="list-style-type: none"> These requirements are still under review.
<ul style="list-style-type: none"> Concern that the mid-term process provides minimal certainty that an outage will proceed as planned as they are still subject to near-term approval. A three day revocation leaves little time to mitigate costs or pursue other options such as replacement energy. 	<ul style="list-style-type: none"> The proposed mid-term process provides more certainty than the process in place today as potential conflicts are addressed much further in advance and approved outages receive a higher priority. Risks for revocation and recall exist at any time during the life cycle of an outage due to unforeseen changes in system conditions The near-term process will provide participants with revocation notice one day ahead of the current 14 day advance approval process (3 days vs. 2 days). 	<ul style="list-style-type: none"> The revised near term weekly assessment period has been advanced by 5 calendar days, allowing for earlier approvals. Revocation of mid-term approvals can be identified up to 21 days in advance if discovered at the beginning of the near-term weekly assessment period.
<ul style="list-style-type: none"> All members support using a single or combination of threshold criteria to limit the volume of outages to be coordinated, assessed and reported on within the mid-term process. 	<ul style="list-style-type: none"> The IESO will propose threshold criteria at the next SE-109 meeting. 	<ul style="list-style-type: none"> The mid-term threshold criteria is ≥ 3 days duration for all outages.
<ul style="list-style-type: none"> Several members expressed concerns with the threshold examples being overly restrictive or discriminant and questioned how each threshold example was determined. 	<ul style="list-style-type: none"> The IESO would like to clarify that the threshold examples were only intended to provide context. The proposed thresholds will consider what is most equitable for all participants and what volume of outages can be accommodated based on IESO resource capability. 	<ul style="list-style-type: none"> The proposed threshold criteria is open to all participants.
<ul style="list-style-type: none"> How will the threshold criteria impact the IESO's outage decisions? 	<ul style="list-style-type: none"> Threshold criteria will only be used to determine what volume of outages will be evaluated in the mid-term process. 	<ul style="list-style-type: none"> No further comment.

Member Comment	IESO Response	IESO Action
<ul style="list-style-type: none"> Recommend including between 1 and 3 outages not meeting the threshold criteria. All members agreed that the exception criteria should be on a per facility per coverage period basis. Allow for exceptions beyond the pre-determined amount on a case by case basis given adequate justification (similar to the current 14 Day advance-approval process). 	<ul style="list-style-type: none"> The IESO will consider the member comments when determining the total volume of outages that can be evaluated within the mid-term process based on IESO resource capability. This item will be addressed at the next SE-109 meeting 	<ul style="list-style-type: none"> Exemptions will be assessed on a best effort basis and in order of time-stamp precedence The IESO will determine how many exemptions can be included in the mid-term process at the beginning of the assessment period.
<ul style="list-style-type: none"> The majority of members prefer impactful outage notifications be made via e-mail. The remaining members were indifferent to receiving notification via e-mail or outage software. No members prefer verbal notification. 	<ul style="list-style-type: none"> Members should recognize that a notification process will likely require automation. The IESO will reflect this feedback within the requirements for a new outage management solution. 	<ul style="list-style-type: none"> No further comment.
<ul style="list-style-type: none"> Notification of impactful outages should include an explanation of what the potential impact would be as not all market participants have the system knowledge to be able to fully appreciate 	<ul style="list-style-type: none"> The IESO will consider this feedback when developing requirements for a new outage management solution. In the absence of fulfilling such a requirement, the IESO would be available to address impacts upon request. 	<ul style="list-style-type: none"> No further comment.
<ul style="list-style-type: none"> All members were in agreement with the definition and timelines associated with <i>Opportunity</i> type outage requests. 	<ul style="list-style-type: none"> The IESO considers the proposed definition and submission timelines for <i>Opportunity</i> outages approved. It would be difficult to standardize criteria for <i>Opportunity</i> outages. They would likely be considered on a case by case basis. 	<ul style="list-style-type: none"> Retained within the redesign proposal.
<ul style="list-style-type: none"> How will market participants be informed of scheduling opportunities that allow for <i>Opportunity</i> outages to be requested? 	<ul style="list-style-type: none"> For new requests, the IESO expects that participants will use publicly available information to make decisions on whether a scheduling opportunity exists. The IESO will consider additional information vehicles to assist participants with identification. For previously rejected requests, the IESO will provide participants with scheduling opportunity recommendations at the time of rejection. The IESO would attempt to make available potential scheduling opportunity discussions upon participant request. 	<ul style="list-style-type: none"> No further comment.
<ul style="list-style-type: none"> What would happen to an approved <i>Opportunity</i> outage request if the outage that presented the scheduling opportunity in the first place was cancelled? 	<ul style="list-style-type: none"> The IESO will consider this scenario in finalizing the process design and discuss at the next SE-109 meeting. Treatment of the <i>Opportunity</i> outage would likely depend on whether the outage was already in progress or not. 	<ul style="list-style-type: none"> Treatment of the <i>Opportunity</i> outage would be assessed by the IESO on a case by case basis.
<ul style="list-style-type: none"> The proposed criteria examples (15 minute recall times) for pre-approved outages may be too restrictive for generators with specific fuel types. 	<ul style="list-style-type: none"> The criteria examples were intended to provide context only. The IESO fully supports the pre-approval process and will continue to work with participants to help define the criteria through SE-109. 	<ul style="list-style-type: none"> No further comment.

Member Comment	IESO Response	IESO Action
<ul style="list-style-type: none"> Will the IESO allow for flexibility in allowing outages to be pre-approved that do not initially meet the submission criteria? 	<ul style="list-style-type: none"> The IESO does not anticipate assessing whether outages that fail the pre-approval criteria still be considered on a day to day basis. Flexibility will be given when sufficient evidence warrants expansion of the pre-approval criteria as a whole. 	<ul style="list-style-type: none"> No further comment.
<ul style="list-style-type: none"> Members recommend the following types of outages be included for pre-approvals: <ul style="list-style-type: none"> Transformation and switching equipment associated with a low tension bus Customer load transfers Auxiliary system outages representing a loss of redundancy Generator outages with short durations and recall times. Generator testing/de-ratings 	<ul style="list-style-type: none"> Pre-approvals are intended provide participants with scheduling flexibility for outages that have very low impact on system reliability and require little to no IESO assessment. It is unlikely that outages making a generating unit(s) unavailable would be considered for pre-approval, but may be available for generator de-ratings and testing (i.e. since the generating unit would be online and available for voltage support) The IESO fully supports the pre-approval process and will continue to work with participants to define the criteria through SE-109. 	<ul style="list-style-type: none"> No further comment.
<ul style="list-style-type: none"> The majority of members prefer a separate mid-term reporting vehicle from the 18 Month Outlook with as much relevant information as the IESO can provide. The remaining members indicated either report would suffice. 	<ul style="list-style-type: none"> The IESO will consider the majority preference in finalizing the redesigned outage management proposal. 	<ul style="list-style-type: none"> The IESO will consider synchronizing the mid-term and 18 Month Outlook processes to ensure consistency of information. Publication will likely be approximately 1 month in advance of the 18 Month Outlook. As a result, a separate mid-term report would be published.
<ul style="list-style-type: none"> The majority of members were in agreement with the IESO's recommendation to retain the existing cost recovery mechanism. Consideration should be given to provide cost-recovery for mid-term approvals that are revoked once re-assessed in the near-term process (similar to the current 14 Day advance-approval process). One member questioned whether cost-recovery could be managed after-the-fact rather than having several requirements for the mechanism during the outage submission and assessment process. 	<ul style="list-style-type: none"> The IESO will consider incorporating cost recovery mechanisms in the mid-term process or whether or not the process can be managed after-the-fact. 	<ul style="list-style-type: none"> The IESO has proposed a mechanism for including cost recovery for mid-term advance approvals within the existing framework for compensation.
<ul style="list-style-type: none"> A transition period and sufficient training should be provided on the redesigned process and solution(s). 	<ul style="list-style-type: none"> The IESO supports this recommendation and will develop a transitioning plan for the redesigned process and supporting solution(s). 	<ul style="list-style-type: none"> No further comment.

Member Comment	IESO Response	IESO Action
<ul style="list-style-type: none"> Some flexibility should be given to changing the start and end times of an outage beyond what was approved in the mid-term process without affecting time-stamp and mid-term approval. 	<ul style="list-style-type: none"> Offering this flexibility may inhibit desirable planning behaviour and will likely re-introduce outage conflicts intentionally avoided in the mid-term process. The IESO will consider how moderate expansion of outage duration could be achieved between the mid-term and near-term processes and discussed at the next SE-109 meeting. 	<ul style="list-style-type: none"> Shortening the outage duration within the approved window is the only change that can be made without affecting timestamp and will drive desirable planning behaviour.
<ul style="list-style-type: none"> Is the mid-term process mandatory (will a lack of confirmation reject an outage?) 	<ul style="list-style-type: none"> The mid-term process is not mandatory; however lack of confirmation will result in a lower priority time-stamp. 	<ul style="list-style-type: none"> Submission prior to the deadline is all that is required to participate in the mid-term process. It remains voluntary. Outages submitted after the deadline can still participate in the near-term process but with lower time-stamp precedence.
<ul style="list-style-type: none"> Revoking mid-term approvals and resetting time-stamp for changes beyond a reduction in duration may encourage participants to initially inflate the length of their outage, only to reduce the duration as the near term approaches in order to protect priority and time stamp. 	<ul style="list-style-type: none"> The IESO considered this risk, however such behaviour could theoretically place inflated outages at a higher risk of being rejected as they would likely overlap with multiple competing outages. Other ISOs reported limited evidence of such behaviour as pressure from participants with competing outages drives more accurate planning activities. 	<ul style="list-style-type: none"> No further comment.
<ul style="list-style-type: none"> Proposed process appears to be driven by adequate alignment with potential software solutions rather than taking participant feedback into consideration. SE-109 should be given more time to adequately incorporate participant feedback. 	<ul style="list-style-type: none"> The IESO will seek a new software solution that provide for flexibility in changing business rules. The IESO is committed to designing a process that will meet the objectives and design principles of this initiative. The IESO will seek an outage management software replacement that enables a process design supported by participants. The IESO has and will continue to engage stakeholders and consider their input into the process design in a timely manner. 	<ul style="list-style-type: none"> No further comment.
<ul style="list-style-type: none"> Concern the cost implications of aligning participant software with that of the IESO is not being adequately considered. 	<ul style="list-style-type: none"> The IESO needs to understand the impact and will seek feedback from participants on estimated cost vs. benefit. 	<ul style="list-style-type: none"> No further comment.
<ul style="list-style-type: none"> Participants should be given a list of equipment considered as <i>Critical</i> in order to support the near-term process for handling these outages. 	<ul style="list-style-type: none"> The IESO agrees with this recommendation and will consider implementation in a confidential manner. 	<ul style="list-style-type: none"> No further comment.
<ul style="list-style-type: none"> Table-top scenario sessions would provide participants with a better understanding of the redesigned process and ease market rule and manual development. 	<ul style="list-style-type: none"> The IESO will consult with SE-109 members on this recommendation at the next SE-109 meeting. 	<ul style="list-style-type: none"> No further comment.