

OUTAGE MANAGEMENT PROCESS REDESIGN

October 5, 2016

Agenda

- Project Update: Market Trials and Go Live
- Access to IESO Portal, Online IESO and Outage Management
- Outage Management features in Online IESO
- Outage Management Transition Plan
- Recap of Outage Management Process and Tool Features

Project Update: Market Trials

- Access issues related to account setup/password
- Several Web Service (API) defects discovered and fixed
- Web client testing passed
- Outage migration testing still in progress with OPG and Hydro One

Project Update: Go-Live

- Wednesday October 26
- Avoid scheduling outages between October 25 and October 27 (before, on and after Go live)
 - Please notify us if you already submitted an outage prior to being notified of the new Go Live date and are unable to reschedule your outage.
- Create your sandbox & production accounts if you do not already have them for the current outage management system.

System Setup: What's Required?

- IESO Portal Account
 - Separate accounts required for Sandbox & Production
 - Contact your Customer Relations rep
- Outage Management System Contact Roles
 - Separate roles for Sandbox and Production
 - 'Equipment Outage Submitter' **OR** 'Equipment Outage Viewer' contact role required
 - Assigned by your organization's Application rep

System Setup: What's Required?

- Online IESO (Registration System) Contact Roles
 - Separate roles required for Sandbox & Production
 - 'Equipment Registration Specialist' contact role required to view/modify equipment details
 - Assigned by your organization's Application Rep

Note: If you already have Sandbox and Production access to Online IESO and the current Outage Management System, no further action is required (your credentials will be auto-migrated).

Outage Management Features: Online IESO

- The IESO's equipment registration system (Online IESO) is the source database for the new outage management system
- Several new features are available:
 - Setting up Third Party Viewership
 - Setting up Late to Start Notifications
 - Viewing equipment attributes related to outage management (e.g. Criticality Level)

Third Party Viewership (with Demonstration)

- Grant others viewership of your organization's equipment outages (i.e. to support outage coordination):
 1. 'Equipment Registration Specialist' role required
 2. Select "Manage Third Party Viewership"
 3. Locate your equipment in Online IESO
 4. Select organization(s)
- Viewership can be granted/revoked at any time

Late to Start Notifications (with Demonstration)

- New outage management system can be configured to send email notifications when the planned time is 45 minutes overdue and the outage has not yet been implemented.
1. 'Equipment Registration Specialist' role is required
 2. Add person to Equipment Outage Late Notification Contact through the "Update Organization" action for the Organization that created the outage
 3. Turn on "Send Me Outage Request Approval/Denial Notifications" option in web client

Viewing Equipment Criticality (with Demonstration)

- The criticality level of equipment determines how far in advance an outage must be submitted to the IESO for advance approval:
 - Critical (2-3 weeks in advance)
 - Non-Critical (5 business days in advance)
 - Low-Impact (2 business days in advance)
- Criticality level can also be seen in the new outage management system as 'Facility Class' (i.e. values of 1, 2 and 3 respectively)

Go Live Transition: Outage Migration

- Migration tests currently being performed and fine tuned
- IESO will be reaching out to participants over the next few weeks to request outages be resubmitted in the current system if:
 - They are occurring between Oct 26 and Nov 2; and
 - They are expected to fail migration in their current form.

Go Live Transition: System Cutover Plan

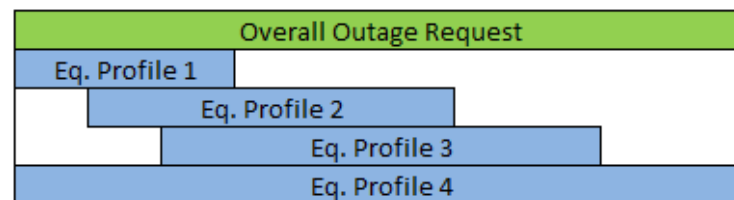
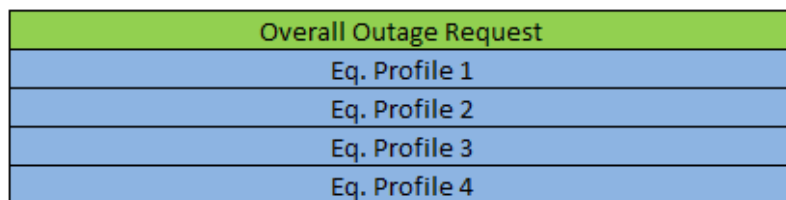
Time	Details
09:00 EST (10:00 DST)	<ul style="list-style-type: none">Existing Web Client and Web Service interfaces will be disconnectedParticipants will only be able to see their outage requests
09:00 – 15:00 EST (10:00 – 16:00 DST)	<ul style="list-style-type: none">IESO pre-migration workMigrate outages in-progress and starting Oct 26 and Oct 27IESO system and migration health checksMigrate outages starting Oct 28 to 10 years out<ul style="list-style-type: none">~3800 outages anticipated
15:00 EST (16:00 DST)	<ul style="list-style-type: none">New Web Client and Web Service interfaces connectedParticipants can begin submitting and viewing outage requests in the new system

Go Live Transition: Outage Migration

- IESO will provide a list of outage requests that have passed and failed after migration is complete
- Participants will have to manually resubmit outages that fail migration into the new outage management system
- Participants will continue to have viewing access to the old system for outage request reference purposes
- IESO will manually retain timestamps for outages resubmitted by November 11, 2016.

Outage Request Migration Recap

- The following outage requests will not be auto-migrated (manual resubmission req'd):
 - Cancelled Outages
 - Informational Outages
 - Outages with overlapping equipment profile start and end times that differ from the overall outage start/end time



Outage Request Migration Recap

- The following outage requests will not be migrated (manual resubmission req'd):
 - Outages with different equipment profile codes on the same piece of equipment

Overall Outage Request		
Equip A - Derated To		
	Equip A - Derated To	
		Equip A - Derated To



Overall Outage Request		
Equip A - Out of Service		
	Equip A - Derated To	
		Equip A - In Service



Outage Request Migration Recap

- The following outage requests will not be migrated (manual resubmission req'd):
 - One day outages with incorrect Daily and Weekend flags:

Planned Start	Planned End	Daily flag	Weekend flag	
Monday 9:00	Monday 5:00	Continuous	Available	✓
		Daily	Unavailable	✗
		Daily	Available	✗
		Continuous	Unavailable	✗

- One day outages must be 'Continuous' + 'Available' weekends

Outage Request Migration Recap

- The following outage requests will not be migrated:
 - Weekday outages with incorrect Daily and Weekend flags:

Planned Start	Planned End	Daily flag	Weekend flag
Monday	Friday	Daily	Unavailable
		Continuous	Unavailable

X
X

- Weekday outages must be 'Available' weekends

Outage Request Migration Recap

- The following outage requests will not be migrated:
 - Short Notice Planned outages that have not been assessed

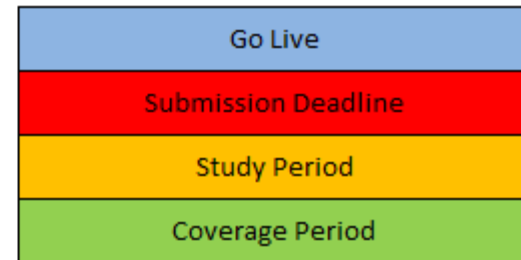
Outage Management Process Transition

- ‘Hybrid’ process will be in place for 2 weeks post Go Live to manage timeline differences between the current and new processes.
- No new Planned outages should be submitted into the current system after 16:00 EST Mon Oct 24.
- Planned outages will not be permitted to start Oct 26 through Oct 28 or to end on Go Live.

Outage Management Process Transition

- All planned outages submitted before 16:00 Mon Oct 24 and scheduled to start between Sat Oct 29 and Mon Oct 31 will be assessed by 16:00 Tues Oct 25.

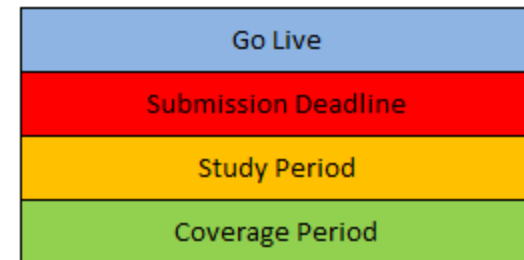
OCT 2016 & NOV 2016						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19



1 Day Advance Approval Process Transition

- The first submission deadline is 16:00 on Thurs Oct 27 for low impact outages scheduled to start Oct 29 – 31.

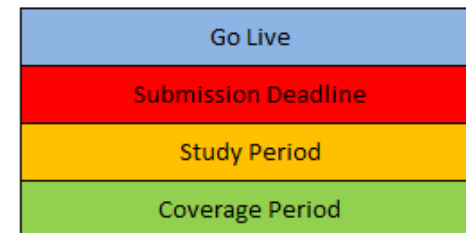
OCT 2016 & NOV 2016						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19



3 Day Advance Approval Process Transition

- The first submission deadline is 16:00 on Thurs Oct 27 for non-critical outages scheduled to start Thurs November 3.
- All planned outages submitted prior to Go Live and starting Nov 1 - Nov 13 will be processed by the 3 Day process since the first Weekly coverage period is not until Nov 14.

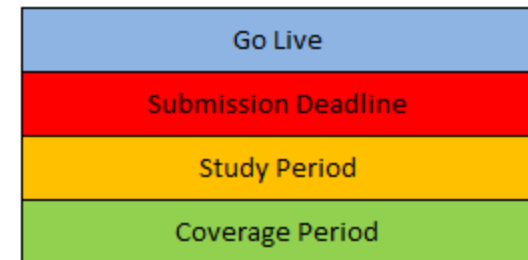
OCT 2016 & NOV 2016						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19



Weekly Advance Approval Process Transition

- The first submission deadline is 16:00 on Fri Oct 28 for newly submitted outages starting Nov 14 through Nov 20.
- Critical outages submitted before Go Live and starting the week of Nov 14 will be also be processed.

OCT 2016 & NOV 2016						
S	M	T	W	T	F	S
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26



Quarterly Advance Approval Process Transition

- Despite the Go Live delay from Sept 14, the IESO will still perform a Quarterly Advance Approval process for the Quarterly coverage period of Jan 1/17 through Jun 20/17.
- Outage requests starting between Jan 1/17 and Jun 30/17 will be assessed by Dec 1/16 if they are submitted prior to Nov 1/16.
- Participants are encouraged to review and firm up their outage plans for Jan – June 2017 prior to the Nov 1/16 submission deadline.

Recap: Final Approval, Implementation and Completion

- Unless you have received Final Approval in Advance (FAA) via the new tool, the process for verbally requesting final approval to start and complete an outage doesn't change
- Implementation:
 1. Verbally request final approval to proceed with your outage.
 2. IESO will place the outage request into Final Approved status.
 3. Participants must place the outage request into Implemented status by applying an actual start time.

Recap: Final Approval, Implementation and Completion

- Completion:
 1. Verbally request final approval to complete your outage.
 2. Participants must place the outage request into Completed status by applying an actual end time.
- Notice to participants:
 - Electronic implementation and completion of outages is a new step for participants
 - Ensure the appropriate staff (e.g. your operators) have the new 'Equipment Outage Submitter' role and are familiar with the new tool.

Recap: Changing MW levels on an Implemented Derate request

- To change the MW level of an implemented outage, you need to:
 - Contact the IESO to notify them of changes
 - Cancel the existing outage or cancel the future period MW levels for the outage
 - Submit a new outage request with the future MW level changes
 - Update EMI bids/offers