

OUTAGE MANAGEMENT PROCESS REDESIGN

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Agenda

- Project Update
- Training Topics
- Next Steps

PROJECT REVIEW

Project Review - Background


- The new outage management system went live on October 26, 2016
- What was changed:
 - New outage tool
 - New outage process timelines
 - Additional outage features
 - Auto-Advanced approvals

OMSR Review - Background

- Based on feedback received, want to review some training topics:
 - Outage Submission Timelines
 - Outage Implementation Process
 - New Contact Roles

Project Review - Submission Timelines

- Common error causing confusion:

 **Errors in Submit...**
The Outage Request could not be updated because of the following error:
The 'Planned Start' date must be on or after the start of the next three day coverage period.

Outage Request: 1-00018099 rev. 1 Draft Planned

[Request Summary](#) [Details](#) [Study](#) [Attachments \(0\)](#)

[Back](#) [Export](#) [New](#) [Duplicate](#) [Home](#)

IESO Outage ID: 1-00018099 Rev #: [History](#) [Check Conflicts](#)

- Outage submission deadlines depend on the equipment on the outage request
 - Critical Equipment (Facility Class = 1)
 - Non-Critical Equipment (Facility Class = 2)
 - Low Impact Equipment (Facility Class = 3)

Project Review - Submission Timelines

- Equipment Criticality Levels can be retrieved from Online IESO

Records →

Equipment and Resourced by Facility →

Related Actions →

Export Equipment and Resources data



Export Equipment and Resources data

Also visible on the outage request form

*Requested Equipment:

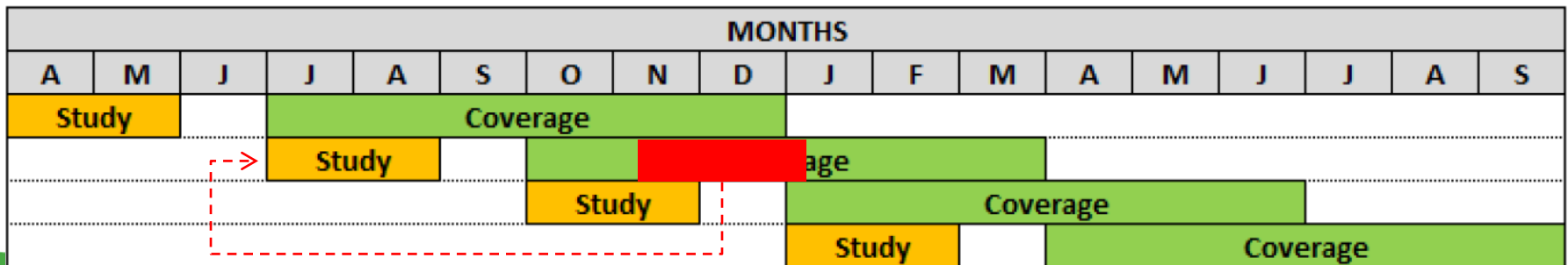
	Station	Equip. Name	Equip. Class	Equip. Description	Constraint	Voltage Class	Facility Class
✗	STATION A	Breaker 001	Breaker	Checking equipment.	BF PROT OOS	115 kV	3
✗	STATION A	Tone Comm Channel 00...	Tone Communicatio...	STNA TCU XYZ01	OOS	n/a	2

Add...

Project Review - Submission Timelines

- Quarterly Process

- Outages to any equipment type may choose to submit into the Quarterly Process
- Must be submitted by 00:00 EST, 3 months prior to the coverage period start
 - Outage start : November
 - Submission deadline: before July 1st 00:00 EST



Project Review - Submission Timelines

- Critical Equipment (Facility Class = 1)
 - Planned outages must submit into **Weekly Process**
 - i.e. will receive Advanced Approval at least 1 week in advance
 - Must be submitted by 16:00 EST, 17 days prior to the coverage period start
 - Outage start : Saturday Week 4
 - Submission deadline: before Friday 16:00 EST Week 1

		DAYS							
		S	M	T	W	T	F	S	
WEEKS	1						←		
	2	Study							
	3								
	4		Coverage						
	5								

Project Review - Submission Timelines

- Non-Critical Equipment (Facility Class = 2)
 - Planned outages must submit into **3-Day Process**
 - i.e. will receive Advanced Approval 3-Days in advance
 - Must be submitted by 16:00 EST, 5 days prior to the coverage period start
 - Outage start : Saturday Week 1
 - Submission deadline: before Monday 16:00 EST Week 1
 - Outage start : Tuesday Week 2
 - Submission deadline: before Tuesday 16:00 EST Week 1

		DAYS						
		S	M	T	W	T	F	S
WEEKS	1			Study				
	2	Coverage						

		DAYS						
		S	M	T	W	T	F	S
WEEKS	1			Study				
	2			Coverage				

Project Review - Submission Timelines

- Low Impact Equipment (Facility Class = 3)
 - Planned outages must submit into the **1-Day Process**
 - i.e. will receive Advanced Approval 1-Day in advance
 - Must be submitted by 16:00 EST, 2 days prior to the coverage period start
 - Outage start: Sunday Week 2
 - Submission deadline: before Thursday 16:00 EST Week 1
 - Outage start : Wednesday Week 1
 - Submission deadline: before Monday 16:00 EST Week 1

		DAYS						
		S	M	T	W	T	F	S
WEEKS	1					Study		
	2							

		DAYS						
		S	M	T	W	T	F	S
WEEKS	1			Study	Coverage			
	2							

Project Review - Submission Timelines

- 1-Day Process

- Planned outages to Critical and Non-Critical equipment **may be eligible** for submission into the 1-Day Process
- Must meet eligibility criteria outlined in [Market Manual 7.3 Appendix D](#)
 - e.g. Line protection outage with only a loss of redundancy
 - e.g. Generator outage that starts and ends on the same day with a 15 min recall, etc.

Project Review – Actual Times Submission

- After receiving **Final Approval** from the Control Room, it is now your responsibility to **Implement** the outage and enter Actual Start and End times
- For an outage with multiple periods, the actual times cannot overlap
- The actual end date/time of the first period must be **equal to or earlier** than the actual start date/time of the next period

	Equipment	Constraint	Actual Start	Actual End	
Outage Request 1	Generator G1	Derate to 10 MW	Mon 2016/11/14 13:51	Mon 2016/11/14 14:05	Incorrect Outage Request. The actual start of the second period must be after 14:05.
	Generator G1	Derate to 50 MW	Mon 2016/11/14 13:53	Mon 2016/11/14 14:20	



	Equipment	Constraint	Actual Start	Actual End	
Outage Request 2	Generator G2	Derate to 10 MW	Mon 2016/11/14 13:51	Mon 2016/11/14 14:05	Correct Outage Request.
	Generator G2	Derate to 50 MW	Mon 2016/11/14 14:05	Mon 2016/11/14 14:20	



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Project Review – Contact Roles

- New Contact Roles in [Online IESO](#) to grant access to the Outage Management System
- Granted by the Organization's Applicant Representative
- Equipment Outage Submitter:
 - Can submit, update and cancel outage requests on equipment **operated** by your organization
 - Each equipment Operator **must** have **at least one**
- Equipment Outage Viewer:
 - Can only view outages for the Organization

Project Review – Contact Roles

- These Roles are mutually exclusive
 - An individual should only be assigned **one** of these roles – i.e. Submitter OR Viewer
- These Roles are Organization specific
 - An individual must be assigned the role from every Organization for which they **operate** equipment
- IESO has resolved issues with the transfer of multiple roles

Project Review – Organization

- For individuals assigned Submitter role from **multiple** organizations:
 - The Organization listed on Outage Request is **static** regardless of which company you are submitting on behalf of
 - Still able to submit outages for all Organizations granted

Project Review – Organization

- For individuals assigned Submitter role from **multiple** organizations:
 - Defaults to **last Organization** for which you were granted permission
 - i.e. Granted Equipment Outage Submitter for **Company A**, and
Granted Equipment Outage Submitter for **Company B** a year after
→ **Company B** will be listed on all your outage submissions
 - Visual issue to be addressed in Next Steps

NEXT STEPS

Next Steps

- Project has been extended for 7 months
 - Based on experience since implementation and feedback received
 - To address two main areas:
 - Various system enhancements
 - Market Participant interface enhancements
 - Internal processing enhancements
 - Development of an Adequacy Calculator
 - Internal tool to facilitate assessment of Quarterly outages

System Enhancements

- Improve Transparency:
 - More intuitive error/warning messages
 - Submission deadlines as discussed before
 - Highlight the missing fields when a submission error states that mandatory fields are missing
 - When changes to an outage result in a change the submission deadline requirements

System Enhancements

- Improve Submission Efficiency:
 - Speed up outage submission
 - Remove Conflict Rationale requirement for Forced outages
 - Speed up equipment entry for outage requests
 - Enable creation of Equipment Groups, to facilitate adding a group of equipment commonly taken out of service together

The screenshot displays a web interface titled "My Equipment Groups". It features two tabs: "Options" and "My Equipment Groups". The "My Equipment Groups" tab is active, showing a form with the following fields:

- Group Name:** A text input field containing "EG for PU One 002".
- Group Owner:** A dropdown menu with "Power Utility 1" selected.
- Associated Equipment:** A table listing equipment items.

Equipment
STNA Generator 002
STNA Load 001
STNA Load 003
STNA Reactor 001
STNA Generator 004

System Enhancements

- Improve Submission Efficiency:
 - Facilitate Outage creation with a ramp profile
 - Duplicate function copy the Outage Periods
 - Allow Market Participants to change the Constraint Value for future periods
 - For “Non-continuous” recurrence, have the “Add” button match the start time with the end time of the last period

The screenshot displays a web application interface for managing an "Outage Request: 0-00000000 rev. 1 Planned (New)". The interface includes navigation buttons for "Back", "New", "Duplicate", and "Home", and tabs for "Request Summary", "Details", "Study", and "Attachments (0)".

The "Outage Periods" table is shown below:

	Planned Start	Planned End	Actual Start Actual End	Equipment	Constraint	Status By/ When
✘	2016/04/27 08:00	2016/04/27 16:00	- -	Generator 001	DRATE: 75 MW	
✘	2016/04/28 03:00	2016/04/28 14:00	- -	Generator 001	DRATE: 50 MW	

An "Add..." button is located at the bottom right of the interface.

System Enhancements

- Improve Functionality:
 - Add more fields to the Outage request report
 - Constraint Values
 - Validate that the actual start and end times do not overlap
 - As discussed before
 - Change how the Submitter Organization is labelled on the outage request
 - As discussed before

System Enhancements

- Improve Assessment Efficiency:
 - Facilitate the negotiation of outages



- Changes, i.e. to Planned Start, may have moved the outage outside the Study period, but it remains in “Study” mode
 - Potential for outage not be assessed on time
 - Outage stays locked until new applicable study period

CONCLUSION

Action Items

- IESO will work with vendor to develop and test enhancements
- Next Information Webinar in **August**
 - Demonstrate changes
 - Outline implementation plan
- CROW Deployment **Q3/Q4 2017**

QUESTIONS?