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	Procedure Number: <i>RTMKTS.0110.0015</i>	Revision Number: <i>18</i>
	Procedure Owner: <i>Steve Gould</i>	Effective Date: <i>November 3, 2011</i>
	Approved By: <i>Director, Operations</i>	Valid Through: <i>November 3, 2013</i>

SOP-RTMKTS.0110.0015


Flagging for RT Market Settlements

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1. Objective

The intent of this procedure is to define the business process that is performed to transfer the reliability commitment flags for Real-Time (RT) from the ISO Outage Scheduling software to the Gateway Data Modification Application (GDMA).

2. Background

ISO New England (ISO) performs a Reserve Adequacy Assessment (RAA) and if necessary commits Generators and Dispatchable Asset Related Demands (DARDs) to meet system-wide and/or local reliability requirements including:

- Voltage Control and Voltage Support
- Special Constraint Resource
- 1st Contingency Transmission
- 2nd Contingency Transmission


Generators and DARDs committed for reliability are flagged to ensure proper allocation of charges.

3. Responsibilities

1. The Forecaster is responsible for finalizing and transferring RT Reliability flags from the ISO Outage Scheduling software to the GDMA.

4. Controls

- The ISO Outage Scheduling software and GDMA are used to finalize and transfer required flags

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5. Instructions

5.1 Finalize and Transfer Real-Time Flags in ISO Outage Scheduling Software


NOTE

Attachment B provides descriptions of the settlement flags that use the acronyms VSUH, VSUL, RMR and SCR.

Attachment D - Flagging Check List provides a checklist for flagging RT flags.

1. The night shift Forecaster shall:
 - A. Open the GDMA and review the Generator/DARD data in the GDMA for the applicable Operating Day
 - B. Open the ISO Outage Scheduling software and review the flag transfer data for the applicable Operating day.
 - C. Use the following considerations to determine and perform the required flagging:
 - There is no ramping for a flagged Generator/DARD in the Day Ahead, any ramping hours associated with commitment for RMR, VSUH, VSUL or SCR shall be flagged in Real Time.
 - When a Generator/DARD is committed in Real Time for VSUH, VSUL or RMR (based on the current operating plan at the time of the Day Ahead run) and the Generator/DARD must be committed in the Day Ahead Market to complete its minimum run time:
 - The Real Time flag shall follow the commitment of the Day Ahead Market.
 - If the Generator/DARD shuts down after the minimum run, it shall be flagged until the Generator/DARD actually goes offline.
 - If a Generator/DARD needed for reliability cannot be shut down without violating the minimum down time, the Generator/DARD shall be flagged for the entire time until the Generator/DARD is no longer needed (including the ramp down time).

For Example: If a Generator/DARD with a 12 hour down

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time is needed for a VSUH requirement until 0900 and is needed again before the minimum down time would be satisfied, the Generator/DARD shall remain online and flagged for the entire run until the Generator/DARD is no longer needed (including the ramp down time).

D. For each Generator/DARD listed in the ISO Outage Scheduling software “Must Run Detail Summary” report, perform the following actions:

- (1) Verify that the Generator/DARD operated in Real-Time.
- (2) As appropriate, use the times listed in GDMA to update the ISO Outage Scheduling software.

NOTE

The affected Reliability Region is not necessarily the same Reliability Region in which the Generator/DARD is located.


For Example: WSP3 is needed for RMR in CT. This Generator is flagged RMR for CT even though the Generator is physically located in WCMASS.

- (3) For VSUH, VSUL and RMR flags, verify the flags are assigned to a Dispatch Zone that will transfer the flag to the affected Reliability Region.
- (4) Finalize and transfer the appropriate Real-Time Settlement flag (VSUH, VSUL, RMR, SCR) from ISO Outage Scheduling software to the GDMA per the applicable directed action contained in the following:
 - Attachment A - Reliability Commitment Flagging Policy
 - Attachment B - Settlement Flags
 - Attachment D - Flagging Check List

NOTE

There will be a success message on the top of the transferred flag page printed by the ISO Outage Scheduling software.

- (5) Print the transferred flags report page in the ISO Outage Scheduling software and file a hard copy in the Transferred Flags binder.

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NOTE

Questionable flags should include flags added on during the day without obvious justification and any SCR flags.

E. If there are any questionable flags after transferring, notify the applicable parties using the “Questionable Flags” e-mail group listing and include the following information in the e-mail:

- Generator/DARD (X) is being run for (describe reason) in (describe zone)
- Document question

6. Performance Measures


- None

7. References


ISO Outage Scheduling Software User Guide

8. Revision History


Rev. No.	Date	Reason	Contact
0	06/02/05	Original	Seamus McGovern
1	05/05/06	Updated for Control Room Forecaster Split, added Att D Flagging Check List, removed VU Hi Volt gen list	Steve Weaver
2	06/05/06	Added in Local Second Contingency Protection Resource language from MR and M-11	Steve Weaver
3	06/19/06	Revised to reflect changes in SAM Db (including Att E)	Steve Weaver
4	10/01/06	Revised for ASM Phase II	Steve Weaver
5	12/20/06	Revised to include notification using the “Questionable Flags” e-mail group	Steve Weaver
6	03/05/07	Revised language for clarity and substituted reference to RTSC with TRAGO	Steve Weaver
7	04/04/07	Revised activities after review by Shift Supervisor	Steve Weaver
8	08/15/07	Clarified actions to ensure flags transfer correctly into GDMA	Steve Weaver

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Rev. No.	Date	Reason	Contact
9	07/01/08	Annual Review by Procedure Owner. Added new Responsibility (2.) for Generation Operator Deleted step 5.1.1.C.4) Added new step 5.1.3 Deleted Attachment D step 9	Steve Weaver
10	01/01/09	Annual Review by Procedure Owner; Changed "Review Due Date" to "Valid Through: mm/dd/yyyy (24 months from effective date)" In Responsibilities and Section 5.1 changed Supervisor to Forecaster; Modified Section 5.1 steps 1-4; Various locations changed Resource to Generator, DARD or both; Various locations consistent use of acronym of SAM Db; Rewrote Attachment D; Added guidance for flagging VSU and RMR to flag the affected region	Steve Weaver
11	04/02/09	Clarified flagging process as requested by Settlements in Attachment A	Steve Weaver
12	11/30/09	Biennial review by procedure owner; Added new step 8.C. to Attachment A	Steve Weaver
13	01/18/10	Changed Header copyright date to 2010; Modified Attachment D, re-worded the explanation for "questionable flags" in the directions for emailing	Steve Weaver
14	01/06/11	Global replaced page numbers with Page X of Y format; Global updates for replacement of SAM Db with the CROW Outage Scheduling software In Section : corrected Market Rule 1 title, added ISO Outage Scheduling Software User Guide; Retired Attachment E	Steve Weaver
15	04/06/11	Updated Header Procedure Owner; Added new step 5.1.1.C and sub-steps, renumbered remaining steps; Deleted NOTE prior to step 5.1.1.D.(4) and deleted 3 rd and last bullets; Added new NOTE prior to step 5.1.1.D.(5), modified step 5.1.1.D.(5) & deleted step 5.1.1.D.(6); Section 9 updated Attachment title; Attachment A changed title and modified step 1. Deleted step 2 and in step 9 deleted "VSD"; Attachment B deleted 2 nd data row (VSD); Attachment C retired; Attachment D modified checklist to be consistent with changes in text step 5.1.1.D.(5) and deleted "any unit that is flagged for multiple regions" in last paragraph; Attachment E retired	Steve Gould
16	5/20/11	Section 5.1: last note, deleted non applicable instructional language Attachment D deleted last sentence in the last item on checklist; deleted language in last Note in Section 5	Steve Gould

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Rev. No.	Date	Reason	Contact
17	07/20/11	Attachment A item 4 added new sub-bullets to this step and modified as necessary to have all directed actions refer to Generator (singular) and not Generators (plural)	Steve Gould
18	11/03/11	Biennial Review by Procedure Owner; Modified Section 1 Objective, to clarify intent of SOP; Section 3, Responsibilities, Modified 1 st , and deleted 2 nd ; Section 5.1 modified NOTE; Step 5.1.1.C last bullet replaced “XXX unit” with “a unit”; Modified Note in Attachment A; Attachment D; deleted 3 rd step;	Steve Gould

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9. Attachments


Attachment A - Reliability Commitment Flagging Policy.

Attachment B - Settlement Flags

Attachment C – Retired (4/6/11)

Attachment D - Flagging Check List

Attachment E – Retired (4/6/11)

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Attachment A- Reliability Commitment Flagging Policy

Common Flag Uses

Voltage Control	VSUH
Local 1 st Contingency Thermal	TCU
Local 1 st Contingency Voltage	VSUL
Interface 1 st Contingency Thermal	TCU
Interface 1 st Contingency Voltage	VSUL
Interface 2 nd Contingency Thermal	RMR
Interface 2 nd Contingency Voltage	VSUL & RMR


1. Flag a Generator VSUH or VSUL that is committed out of merit to control or support voltage, this includes:
 - A. committed for high voltage control
 - B. committed for 1st contingency voltage interface limit
 - C. committed for 2nd contingency voltage interface limit
 - D. spinning and synchronous condensers
2. Flag each Generator or DARD RMR that is committed out of merit for 2nd contingency thermal and/or voltage limits.

NOTE


A Generator that is committed out of merit for 2nd contingency voltage limits will have BOTH RMR and VSU(L or H as appropriate) flags.

If a Generator or DARD is brought on line for reliability it should be flagged all hours of its minimum run time for the reliability reason it was committed for during the first hour of operation.

3. If a Real-Time Generator or DARD is committed out of merit or if an on-line Generator or DARD is loaded out of merit at the request of a local transmission/distribution Market Participant to provide relief for constraints (thermal, voltage or stability) not reflected in the ISO's systems or Operating Procedures shall be flagged SCR.
 - A. If an SCR Generator or DARD was committed out of merit, the SCR flag shall remain on for at least the minimum run time or as long as required by the Market Participant.
 - B. If an SCR Generator or DARD was on-line and loaded out of merit, the SCR flag shall remain on as long as required by the Market Participant.


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4. A committed Generator shall be flagged as long as required, for reliability reason, and at least until the Minimum Run Time including start-up and shut down ramp hours (if applicable) have been met.
 - A Generator that is on-line and has already met its min run requirement shall only be flagged as long as required for the reliability reason
 - An exception to this would be if a Generator has an upcoming Day Ahead award that begins prior to the completion of the Min Run Time and this award was not the result of this reliability commitment.
 - In this case, the Generator would be flagged for all hours up to the start of its Day Ahead award.
5. If a Generator is needed to meet non-contiguous reliability requirements during an Operating Day and the time between the requirements does not permit the Generator to shutdown, the Generator will be committed and flagged for all the interim hours for the reliability reason of the latter commitment requirement.
6. In addition to Real-Time commitments, if a Generator is committed in the current Operating Day to meet a reliability requirement (VSUL, VSUH or RMR) and the Generator will not complete its minimum run time during the current Operating Day, and the Day-Ahead Market cleared the Generator for the next Operating Day to meet the Generator's minimum run time requirement, flag the Generator (VSUL, VSUH or RMR) in the **Day-Ahead Market** for the carry over hours that are required to meet the Generator's Minimum Run Time.
7. If the Generator is on-line and has met its Minimum Run Time:
 - A. And the Generator is not flagged for reliability commitment and it is kept on-line to meet a future hour reliability requirement, it should be flagged beginning in the first hour the Generator was kept on-line through the last hour of the reliability requirement.
 - B. And is flagged for reliability commitment and the Generator is kept on-line to meet a future hour reliability requirement, it should be flagged beginning in the first hour the Generator was kept on-line through the last hour of the reliability requirement
 - C. And the Generator was brought on for a reliability reason, but no longer needed and cannot meet its minimum down time before starting its DA award, flag the unit until the DA award starts.
 - D. The shutdown ramp hours should be flagged.
8. Each Generator and DARD committed for RMR, VSUL or VSUH shall have the appropriate Reliability Region entered. The appropriate reliability region is the region the Generator was brought on to protect, not necessarily the region the Generator is located.
9. Each Generator and DARD committed for SCR shall have the appropriate Transmission Owner or Distribution Company entered.


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Attachment B - Settlement Flags

Flag	Set Flag When:
Out of Merit Upward for VAR Control or Support VAR Up (VSUH, VSUL)	A low or high voltage condition exists that requires a Generator or DARD to be committed for reliability reasons. VSUH flag applies when generator committed to control high voltage. VSUL flag applies when generator committed to support low voltage.
Reliability Must Run (RMR)	A Generator is committed for Local Second Contingency Protection.
Special Constraint Resource (SCR)	A Generator or DARD is committed or an on-line Generator or DARD has been incrementally loaded out of merit, at the request of the local transmission/distribution Market Participant, in order to provide relief for constraints (thermal, voltage or stability) not reflected by ISO Operating Procedures or System Operating Procedures.

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Attachment C - Retired (4/6/11)

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Attachment D - Flagging Check List

Real-Time Flagging transfers:

Initials

- _____ Review logs for any entries that may impact Generator/DARD flagging.
- _____ Review the Current Operating Plan Commitment Differences page for the day to be transferred and verify there is not a Generator/DARD that needs to be flagged.

For each Generator/DARD listed in the ISO Outage Scheduling software Must Run Detail Summary report, verify the following:


- _____ Verify the Generator/DARD operated in Real Time.
- _____ Verify the Reliability Region is correct for VSUH/VSUL and RMR flags.
- _____ Use the times in GDMA to update as appropriate in the ISO Outage Scheduling software.
- _____ Use the ISO Outage Scheduling software to transfer flags.
- _____ Verify the Transfer Status is “Success” for each Generator/DARD listed on the display.
- _____ Print a copy of the transferred flags report and file in the Transferred Flags binder.

If applicable:

NOTE
The Reliability Region is the Reliability Region the Generator/DARD was brought online to protect, not necessarily the Reliability Region the Generator/DARD is physically located in.

- _____ Send email to “Questionable Flags” email group listing. Include each applicable Generator name, the date and times the Generator/DARD was run, the reason it was run and the Reliability Region it was brought on to protect. (Questionable flag emails need to be sent for any SCR flag or any other flags that was added without obvious justification.)

This checklist should be kept for the current month plus one month in the past.

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Attachment E - Retired (4/6/11)