	CROP.45002 Auditing	
© 2024	Approved By: Director, Operations	Effective Date: 04/23/2024
Rev # 39	Procedure Owner: Manager, Control Room Operations	Valid Through: 04/23/2026

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References


1. ISO New England Tariff Section III - Market Rule 1
2. OP 23 Resource Auditing
3. SOP-OUTSCH. 0010.0020 Scheduling Capability, Claim 10/30 and MRR Audits
4. CROP.27002 Telemetry and Topology Problems
5. CROP.35005 Dispatch Using RTUC and UDS

Procedure Background

NERC Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day.

Common Procedure Information

- A. Any ISO-NE qualified Control Room Operator has the authority to take actions required to comply with NERC Reliability Standards. A qualified ISO-NE Control Room Operator has met the following requirements:
 1. Have and maintain a NERC certification at the RC level (per R.1 of PER-003-2)
 2. Applicable requirements of PER-005-2
 3. Approved to cover a Control Room Operator shift position by the Manager, Control Room Operations
 4. Is proficient at the current qualified level.
- B. Real time operation is defined as the current hour and the current hour plus one.
- C. Future hours are those beyond real time operation.
- D. All verbal communications with Local Control Centers (LCC), neighboring Reliability Coordinators/Balancing Authorities (RC/BA), Designated Entities (DE), Demand Designated Entities (DDE) and/or SCADA centers shall be made on recorded phone lines unless otherwise noted.
- E. For all communications:
 1. Use the Basic Protocol for All Operational Communications as prescribed in M/LCC 13.
 2. Use 'ISO New England' or 'New England'. Refrain from using 'ISO'.
 3. Use Asset ID's when communicating with DE/DDEs.
 4. Use three-part communication in all situations where its use will enhance communication.
- F. Primary responsibilities are stated for each step within the procedure, but any ISO Control Room Operator qualified at that position or higher can perform the step. The Primary Responsibility may be delegated to an Operator in a lower qualified position, but the responsibility for its completion remains with the identified individual.
- G. The use of “ensure” within this document means that a verification has been performed and if the item is not correct, corrective actions will be performed.

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Procedure

Condition(s) to perform this section:

- A CLAIM10 or CLAIM30 audit is scheduled to be performed in the ISO Outage Scheduling software.

Section 1 : Conduct a Generator CLAIM10 or CLAIM30 Audit

Notes

If the CLAIM10 or CLAIM30 audit will be followed by a CCA, attempt to initiate the audits as follows:

- For a CLAIM30 or combined CLAIM10 and CLAIM30 audit, attempt to initiate the audit at 25 minutes past the hour.
- For only a CLAIM10 audit, attempt to initiate the audit at 45 minutes past the hour.

Step 1.1

Primary Responsibility: Generation Operator

Utilize Attachment 1 to document completion of each step and to annotate applicable values.

Step 1.2

Primary Responsibility: Generation Operator

Use the Fast Start Manual Dispatch "Daily Eligible" tab to determine if the generator to be audited currently meets the requirements to be a Fast Start.

Instructions

If the generator does **NOT** meet the requirements to be a Fast Start, advance to Step [1.6.1](#) to perform the required logging.

Notes

Only generators that are properly offered in as a Fast Start can have a CLAIM10 or CLAIM30 audit performed.

Step 1.3

Primary Responsibility: Generation Operator

Ensure the generator to be audited has a quality status of "Good" for the MW output SCADA using the "Analyst Quality Flags" display.

Instructions

- ☐ The generator's MW output SCADA must indicate the following: Quality of "Good" and have **no** flags applied in the Flag section
- ☐ If quality status is **NOT** "Good", respond to the failure of the primary source using CROP.27002 Telemetry and Topology Problems.

Notes

The test results are analyzed using the SCADA MW indication, so the generator is required to have a SCADA indication that is of good quality.

Step 1.4

Primary Responsibility: Generation Operator

Ensure the generator to be audited is NOT LEG'd.

Step 1.5


Primary Responsibility: Generation Operator

Ensure the generator to be audited is NOT on verbal dispatch.

Instructions

To access the ED Communication Status display:

- ☐ Click on "RTG";
- ☐ Click on "Related Displays" menu;
- ☐ Click on "Communication Status";
- ☐ The box next to the "Generator RTU" is **NOT** checked.

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Step 1.6 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- Audit cannot be performed due to reliability; Or
- Generator's MW output SCADA is NOT on the Primary or Secondary source; Or
- Generator is on verbal dispatch; Or
- Generator is LEG'd.

Notify the Operations Shift Supervisor that the audit cannot be performed.

Step 1.6.1 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- If the audit is NOT being performed and it is the last day of the audit period.

Log the reason for the cancellation.

Instructions

Use log entry: > TEST AND AUDITS > RESOURCES > Cancelled Audit [E]

Step 1.6.2 Primary Responsibility: Operations Shift Supervisor

Condition(s) to perform this step:

- If the audit cannot be performed and it is an ISO-Initiated audit.

Notify Control Room Management that the audit cannot be performed using email distribution list "Control Room Mgmt".

Step 1.7 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The Fast Start generator has a dispatchable range of greater than 25 MW.

Inform the Security Operator of the generator to be tested.

Step 1.7.1 Primary Responsibility: Security Operator

Perform a security assessment with the generator at full output to determine if a reliability concern exists.

Step 1.7.1.1 Primary Responsibility: Security Operator

Notify the Generation Operator of the security assessment results.

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Step 1.8 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The audit will be performed.

Determine the Target MW value for the audit.

Instructions

For a **Participant** requested audit:

- ☐ If the Target MW value has a non-zero decimal, use the next highest whole number as the target MW value for the audit.
- ☐ If the Target MW value is below Eco Min, use the Eco Min.

For an **ISO-Initiated** audit:

- ☐ If the Target MW value is greater than the Eco Max, use the Eco Max.
- ☐ If the Target MW value is below Eco Min, use the Eco Min.
- ☐ If the Target MW value is between Eco Max and Eco Min, use the Target MW value.

Step 1.9 Primary Responsibility: Generation Operator

Notify the Operations Shift Supervisor of the generator performing the audit and the approximate start time.

Notes

The Operations Shift Supervisor has final discretion of when to conduct the audit.

Step 1.10 Primary Responsibility: Operations Shift Supervisor

Initiate a shift brief.

Instructions

Engage the on-shift System Operators to provide and confirm the following information:

- ☐ Identify the following:
 - ☐ Generator to be audited
 - ☐ Expected start time
 - ☐ Type of test
 - ☐ Target MW value
 - ☐ Requested by party as indicated from application (Participant or ISO-NE)
 - ☐ Expected end time and termination process
- ☐ Confirm approval based on reliability assessment
- ☐ Highlight the following expectations:
 - ☐ Eco Max redec to be performed
 - ☐ CROW application implemented
 - ☐ SS Flag set for appropriate hours
 - ☐ Identify log entry to be made

Notes

- The expected end time can either be:
 - 35 minutes after the initiation of the audit; Or
 - Generator's Earliest Release Time (ERT) has elapsed.
 - $ERT = (\text{cold notification time} + \text{cold start up time} + \text{minimum run time})$

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Step 1.11 Primary Responsibility: Generation Operator
Redeclare the Eco Max.

Instructions

- ☐ If the Target MW value is less than the offered Eco Max value, enter a redeclaration equal to the offered Eco Max.
- ☐ If the Target MW value is equal to or greater than the offered Eco Max value, enter a redeclaration that is 1 MW greater than the Target MW value.

Notes

The redeclaration is performed to prevent a violation of either the economic maximum or emergency maximum in UDS.

Step 1.12 Primary Responsibility: Generation Operator
Set up and initiate the audit.

Instructions

Set up the UDS "Unit Parameter Testing" page with the following information.

- ☐ Select the generator to be audited;
- ☐ Select "Claim Cap" for the Type of test;
- ☐ Enter the Target MW value;
- ☐ Select the "Requested by" party as indicated from application (Participant or ISO-NE);
- ☐ Click the "Initiate test" button.

Notes

- When the audit is initiated the generator will **NOT** be automatically placed in a UCM 4, the generator will need to be placed in a UCM 4 once it is on-line.
- A "**T**" will appear in the Performance Test column on the Unit Status display, "Performance Test of this Asset in Progress" will appear on the generator's Unit Specific display and UDS will display "Performance Test in Progress".
- If the CLAIM10 or CLAIM30 audit will be followed by a CCA, attempt to initiate the audits as follows:
 - For a CLAIM30 or combined CLAIM10 and CLAIM30 audit, attempt to initiate the audit at 25 minutes past the hour.
 - For only a CLAIM10 audit, attempt to initiate the audit at 45 minutes past the hour.

Step 1.13 Primary Responsibility: Generation Operator
Implement the audit outage application.

Step 1.14 Primary Responsibility: Generation Operator
Inform the Loader Operator that the audit has been initiated.

Instructions

Ensure the Loader Operator understands which generator is performing the audit and not to approve any UDS case that will send a shutdown dispatch signal while the test is in progress unless the UDS case is required for reliability.

Step 1.15 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- It is a Participant requested audit.

Set a SS flag for the hour(s) the generator will be performing the audit.

Notes

Setting the Self-Schedule flag will prevent RTUC/UDS from deriving a shutdown signal for the generator performing the audit.

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Step 1.16 Primary Responsibility: Generation Operator

Log the initiation of the audit.

Instructions

- ☐ For a **Participant** requested audit use log entry: > TEST AND AUDITS > RESOURCES > CLAIM 10/30 > Participant Requested [E]
- ☐ For an **ISO-Initiated** audit use log entry: > TEST AND AUDITS > RESOURCES > CLAIM 10/30 > ISO-Initiated Audit [E]

Notes

- Proper logging ensures the appropriate settlement of the Resource.
- If a Resource trips or cancels the audit after logging the initiation of the audit, then the end time of the audit is the time of the trip or cancelation and shall be noted in the comments field.

Step 1.17 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The DE requests to terminate the test and it is NOT an ISO-Initiated audit; Or
- Test is required to be terminated due to reliability; Or
- Generator fails to start; Or
- Generator trips off line during the audit.

Terminate the audit early.

Instructions

- ☐ Manually terminate the audit by using the "Terminate test" button in UDS.
- ☐ For a Participant requested audit, the DE can request to terminate their test at any time regardless of whether the generator has reached the requested MW value or not. There is **no** requirement for the generator to stay on-line for the full audit period.
- ☐ For an active audit the generator's UCM **cannot** be changed while the generator is within the audit time window, which is approximately 35 minutes.

Notes

The Real-Time Studies group will analyze the results and determine if the generator passed or failed the audit.

Step 1.17.1 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- Audit is terminated due to reliability.

Log the reason for the termination.

Instructions


Use log entry: > TEST AND AUDITS > RESOURCES > Cancelled Audit [E]

Step 1.18 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- Generator fails to start; Or
- Generator trips off line during the audit.

Place the generator in a UCM 1 and set the OOS flag.

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Step 1.19 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The audit time has elapsed, which can be 35 minutes from the initiation time; Or
- The generators Earliest Release Time (ERT) has elapsed.

End the audit.

Step 1.19.1 Primary Responsibility: Senior System Operator

Confirm the resource has completed its required audit period.

Step 1.19.2 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- If applicable.

End the audit by clicking the “Terminate Test” button in UDS.

Notes

The Test Flag will be displayed until one of the following occur:

- Generator's UCM is changed.
- Generator's Earliest Release Time (ERT) has elapsed.
 - $ERT = (\text{cold notification time} + \text{cold start up time} + \text{minimum run time})$

Step 1.20 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- A SS flag was set and the audit time has elapsed and the audit has been ended.

Remove the SS flag by setting the Bid Eco flag.

Step 1.21 Primary Responsibility: Generation Operator

Remove the redeclaration entered in Step 1.11 of this procedure.

Step 1.22 Primary Responsibility: Generation Operator

Enter the Test End Time in the previously made log entry.

Notes

- Proper logging ensures the appropriate settlement of the Resource.
- If a Resource trips or cancels the audit after logging the initiation of the audit, then the end time of the audit is the time of the trip or cancelation and shall be noted in the comments field.

Step 1.23 Primary Responsibility: Generation Operator

Complete the outage application with the test end time.

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Condition(s) to perform this section:

- An Establish or ISO-Initiated Claimed Capability Audit (CCA) is scheduled to be performed in the ISO Outage Scheduling software.

Section 2 : Conduct a Generator Claimed Capability Audit

Notes

This audit type is **NOT** initiated via UDS.

There are three types of Claimed Capability Audits (CCA) that may be performed:

1. Establish CCA: establishes the generator asset's ability to respond to ISO dispatch instructions and to maintain performance at a specified output level for a specified duration. An Establish CCA may only be performed between the hours of 0800-2200 on normal business days. ISO holidays are **NOT** normal business days.
2. ISO-Initiated CCA: is conducted by the ISO to verify the generator asset's Establish Claimed Capability Audit value. An ISO-Initiated CCA may be performed by the ISO at any time.
3. Seasonal CCA: determines a generator asset's capability to perform under specified summer and winter conditions for a specified duration. **Treat the Seasonal CCA like a request from a DE for owner testing (SS and/or SDMW as applicable). A Seasonal CCA requires no special action (which includes logging) by the System Operators in relation to the CCA, however all SS log entries are still applicable. Seasonal CCA time requirements may also differ from Establish CCA time requirements, IAW Market Rule 1 Section III.1.5.1.3 (j)**

The duration and end time of a CCA does **NOT** change once the audit starts. If a generator does **NOT** reach the target MW output at the start time, it will **NOT** affect the end time. If the output of the generator is reduced during the audit or the generator shuts down during the audit, it will **NOT** affect the end time.

Step 2.1 Primary Responsibility: Generation Operator

Utilize Attachment 1 to document completion of each step and to annotate applicable values.

Step 2.2 Primary Responsibility: Generation Operator

Determine the specifics of the Establish or ISO-Initiated CCA.

Instructions

- ☐ The following information should be provided in the Outage Scheduling software for the CCA audit:
 - ☐ Generator EMS name
 - ☐ Asset ID
 - ☐ Type of CCA to be conducted
 - ☐ Date and time CCA requested
 - ☐ Date by which CCA must be conducted
 - ☐ Required duration of CCA
- ☐ Coordinate with the Operations Shift Supervisor or Senior System Operator to determine the First Full Clock hour for the audit.
- ☐ Allow the generator time to overrun and **NOT** go past 2200, this is done so that the ultimate goal of the audit can be achieved.

Step 2.3 Primary Responsibility: Generation Operator

Determine if the generator is scheduled to perform a CLAIM10 or CLAIM30 audit in conjunction with the Establish or ISO-Initiated CCA.

Step 2.3.1 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The Generator is scheduled to perform a CLAIM10 or CLAIM30 in conjunction with the CCA.

Perform the CLAIM10 or CLAIM30 using Section 1 of this procedure.

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Step 2.4 Primary Responsibility: Generation Operator
Inform the Security Operator of the generator to be tested.

Step 2.4.1 Primary Responsibility: Security Operator
Perform a security assessment with the generator at full output to determine if a reliability concern exists.

Step 2.4.2 Primary Responsibility: Security Operator
Notify the Generation Operator of the security assessment results.

Step 2.4.3 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The audit cannot be performed due to reliability.

Notify the Operations Shift Supervisor that the audit cannot be performed.

Step 2.4.3.1 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- If the security analysis determined that a reliability concern exists and it is an Establish CCA.

Log the reason for the cancellation.

Instructions

Use log entry: > TEST AND AUDITS > RESOURCES > Cancelled Audit [E]

Step 2.4.3.2 Primary Responsibility: Operations Shift Supervisor

Condition(s) to perform this step:

- If the security analysis determined that a reliability concern exists and it is an ISO-Initiated CCA.

Notify Control Room Management that the audit cannot be performed using email distribution list "Control Room Mgmnt".

Step 2.5 Primary Responsibility: Generation Operator
Ensure the generator to be audited has a quality status of "Good" for the MW output SCADA using the "Analyst Quality Flags" display.

Instructions

- ☐ The generator's MW output SCADA must indicate the following: Quality of "Good" and have **no** flags applied in the Flag section.
- ☐ If quality status is **NOT** "Good", respond to the failure of the Primary Source using CROP.27002 Telemetry and Topology Problems.

Notes

The test results are analyzed using the SCADA MW indication, so the generator is required to have a SCADA indication that is of good quality.

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Step 2.6 Primary Responsibility: Generation Operator

Determine the time(s) required for the generator to have sufficient time to ramp.

Instructions

- ☐ To ensure an accurate audit, the Generation Operator notifies the DE of the audit, allowing sufficient time to achieve the Target MW value prior to the start of the test, but without giving excessive advance notice. Use the offer parameters to make this determination.
- ☐ Determine if the generator has multiple MRRs.
 - If so, use the offered MRR and corresponding MW ranges when determining when the DE needs to be notified of the audit.
- ☐ The minimum required time shall be calculated based on the parameters provided in EMS as follows:

For generators offline:

Notification time + start up time + $\left[\frac{((\text{MRR}_1 \text{ Max Output} - \text{Eco Min}) / \text{MRR}_1) + ((\text{MRR}_2 \text{ Max Output} - \text{MRR}_1 \text{ Max Output}) / \text{MRR}_2) + ((\text{Target MW value} - \text{MRR}_{n-1} \text{ Max Output}) / \text{MRR}_n)}{1} \right]$

Ex:

Gen A has a 3 MW/Min MRR from Eco Min to Target MW value
Notification time + start up time + $[(\text{Target MW value} - \text{Eco Min}) / 3 \text{ MW/Min}]$

Ex:

Gen B has a 6 MW/Min MRR from Eco Min to 79 MW and 1 MW/Min MRR from 79 to Target MW value
Notification time + start up time + $[(79 - \text{Eco Min}) / 6 \text{ MW/Min}] + ((\text{Target MW value} - 79) / 1 \text{ MW/Min})]$

For generators on-line:

$\frac{((\text{MRR}_1 \text{ Max Output} - \text{Current Output}) / \text{MRR}_1) + ((\text{MRR}_2 \text{ Max Output} - \text{MRR}_1 \text{ Max Output}) / \text{MRR}_2) + ((\text{Target MW value} - \text{MRR}_{n-1} \text{ Max Output}) / \text{MRR}_n)}{1}$

Ex: Gen C is at Eco Min and has a 4 MW/Min MRR from Eco Min to Target MW value
 $(\text{Target MW value} - \text{Eco Min}) / 4 \text{ MW/Min}$

Ex: Gen D is at Eco Min and has a 7 MW/Min MRR from Eco Min to 19 and 3 MW/Min MRR from 19 to Target MW value
 $((19 - \text{Eco Min}) / 7 \text{ MW/Min}) + ((\text{Target MW value} - 19) / 3 \text{ MW/Min})$

Step 2.6.1 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The CCA is being performed on an offline non-Fast Start generator.

Request the Senior System Operator determine the required breaker closure time to meet the first full clock hour of the CCA.

Step 2.6.1.1 Primary Responsibility: Senior System Operator

Determine the breaker closure time for the specified generator and provide it to the Generation Operator.

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Step 2.7 Primary Responsibility: Generation Operator
Verify the duration of the audit in the audit outage application.

Notes

As specified in Market Rule 1 [Establish] III.1.5.1.2.h) and [ISO-Initiated] III.1.5.1.4.(f):

An Establish or ISO-Initiated Claimed Capability Audit shall be performed for the following contiguous duration:

Duration Required for an Establish or ISO-Initiated Claimed Capability Audit	
Unit Type	Claimed Capability Audit Duration (Hrs)
Steam Turbine (Includes Nuclear)	4
Combined Cycle	4
Integrated Coal Gasification Combustion Cycle	4
Pressurized Fluidized Bed Combustion	4
Combustion Gas Turbine	1
Internal Combustion Engine	1
Hydraulic Turbine – Reversible (Electric Storage)	2
Hydraulic Turbine - Other	
Hydro-Conventional Daily Pondage	
Hydro-Conventional Run of River	2
Hydro-Conventional Weekly	
Wind	
Photovoltaic	2
Fuel Cell	
Other Electric Storage (Excludes Hydraulic Turbine – Reversible)	2
Demand Response Resource (ISO-Initiated Only)	1

Step 2.8 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The audit will be performed.

Notify the Operations Shift Supervisor of the generator performing the audit and the approximate start time.

Notes

The Operations Shift Supervisor has final discretion of when to conduct the audit. A CCA must be initiated at the top of the hour.

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Step 2.9 Primary Responsibility: Operations Shift Supervisor
Initiate a shift brief.

Instructions

Engage the on-shift System Operators to provide and confirm the following information.

- ☐ Identify the following:
 - ☐ Generator to be audited
 - ☐ Type of test
 - ☐ Expected Breaker Closure Time
 - ☐ Expected "Full Output" MW value
 - ☐ First Full Clock Hour of CCA
 - ☐ Duration of CCA
 - ☐ Expected end time and termination process
- ☐ Confirm approval based on reliability assessment
- ☐ Highlight the following expectations:
 - ☐ Notification to LCC
 - ☐ Initiation process with DE
 - ☐ Eco Max and Eco Min Redecs to be performed
 - ☐ CROW Application Implemented
 - ☐ SS Flag set for ramp and duration of CCA
 - ☐ Identify Log entry to be made

Step 2.10 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The generator was not part of the Day Ahead commitment.

Notify the applicable LCC of the CCA.

Instructions

The following CCA information should be communicated to the LCC:

- ☐ A Claimed Capability Audit is being performed;
- ☐ Time of expected breaker closure (provided by the Senior System Operator, if the audit is being initiated from an offline status for a non-Fast Start generator);
- ☐ Expected "Full Output" MW value;
- ☐ Duration of the CCA (provided in the outage request or as determined in [Step 2.7](#)).

Step 2.11 Primary Responsibility: Generation Operator

Initiate the Establish or ISO-Initiated CCA by notifying the DE.

Instructions

The CCA is initiated by communicating the following to the DE:


- ☐ A Claimed Capability Audit is being performed;
- ☐ Time of expected breaker closure (provided by the Senior System Operator, if the audit is being initiated from an offline status for a non-Fast Start generator);
- ☐ Instructions for the generator to go to "Full Output";
- ☐ First full clock hour of the CCA;
- ☐ Duration of the CCA (provided in the outage request or as determined in [Step 2.7](#))

Notes

No System Operator action is taken for a Seasonal CCA. A Seasonal CCA is treated like a Participant requested Owner Test.

Step 2.12 Primary Responsibility: Generation Operator

Implement the audit outage application.

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Step 2.13 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- If the generator is on-line; Or
- When the off-line generator's output breaker closes.

Place the generator in UCM 3.

Step 2.14 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- An Establish CCA was initiated; And
- The Audit is Participant Requested.

Set the SS flag for the ramp and duration of the test.

Notes

Do **NOT** set the SS flag for ISO-Initiated audit.

Step 2.15 Primary Responsibility: Generation Operator

Redeclare the Eco Max and Eco Min to the expected full output value.

Notes

Eco Min redeclarations are not required for ESD Resources.

Step 2.16 Primary Responsibility: Generation Operator

Select the Reason Code.

Instructions

Redeclarations of Eco Min for auditing or owner testing purposes **MUST** use the reason code "OT", which stands for "Owner Testing". This is required to ensure ISO Settlements processes the data correctly.

Step 2.17 Primary Responsibility: Generation Operator


Log the initiation of the Establish or ISO-Initiated audit.

Instructions

- ☐ For an Establish CCA use log entry: > TEST AND AUDITS > RESOURCES > CCA > Establish [E]
- ☐ For an ISO-Initiated CCA use log entry: > TEST AND AUDITS > RESOURCES > CCA > ISO-Initiated Audit [E]
- ☐ Do **NOT** use the breaker closure/open time for the times in the log entry.
- ☐ Guidance for times in the log entry:
 - ☐ Start Time: is the "first full clock hour of the CCA" time [as communicated to the DE in [Step 2.11](#)].
 - ☐ End Time: it is a time that is equal to the "first full clock hour of the CCA" **plus** the "duration of the CCA" [as communicated to the DE in [Step 2.11](#)].

Notes

- Proper logging ensures the appropriate settlement of the Resource.
- If a Resource trips or cancels the audit after logging the initiation of the audit, then the end time of the audit is the time of the trip or cancelation and shall be noted in the comments field.

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Step 2.18 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The audit duration requirement has been met; Or
- CCA needs to be terminated due to reliability; Or
- CCA has been terminated by the DE on or after the dispatch instruction had been issued.

Terminate the audit.

Step 2.18.1 Primary Responsibility: Senior System Operator

Condition(s) to perform this step:

- The audit duration requirement has been met.

Confirm the audit time requirements have been met.

Step 2.18.2 Primary Responsibility: Generation Operator

Notify the DE.

Instructions

The CCA is terminated by communicating the following to the DE:

- ☐ The CCA has ended;
- ☐ Return the generator to dispatch;
- ☐ Follow the DDPs.

Step 2.18.3 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- An Establish CCA is terminated by the ISO prior to completion due to reliability.

Log the reason for the termination.

Instructions

Use log entry: > TEST AND AUDITS > RESOURCES > Cancelled Audit

Step 2.18.4 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- An Establish CCA is terminated prior to expected completion time.

Notify the applicable LCC of the early termination.

Step 2.18.5 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- An Establish CCA is terminated by the DE on or after the dispatch instruction had been issued.

Log the DE termination of CCA audit.

Instructions

Use log entry: > TEST AND AUDITS > RESOURCES > Cancelled Audit

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Step 2.18.6 Primary Responsibility: Operations Shift Supervisor

Condition(s) to perform this step:

- An ISO-Initiated CCA is terminated prior to completion due to reliability.

Notify Control Room Management that the audit was terminated for reliability using email distribution list “Control Room Mgmnt”.

Step 2.19 Primary Responsibility: Generation Operator
Update the UCM.

Step 2.20 Primary Responsibility: Loader Operator
Verify the generator is following dispatch instructions.

Instructions

The Loader should determine appropriate dispatch by evaluating the following:

- ☐ The current SCRA;
- ☐ System reliability needs.

Step 2.21 Primary Responsibility: Generation Operator
Enter the Test End Time in the previously made log entry.

Notes

- Proper logging ensures the appropriate settlement of the Resource.
- If a Resource trips or cancels the audit after logging the initiation of the audit, then the end time of the audit is the time of the trip or cancelation and shall be noted in the comments field.

Step 2.22 Primary Responsibility: Generation Operator
Complete the outage application with the test end time.

Step 2.23 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The audit duration requirement has been met; And
- Generator being audited is required to be shut down.

Perform actions of CROP.35005 Dispatch using RTUC and UDS “Implement shut down of non-Fast Start generator(s)”.

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Condition(s) to perform this section:

- An MRR audit is scheduled to be performed in the ISO Outage Scheduling software.

Section 3 : Conduct a Generator MRR Audit

Notes

MRR audits are normally done as a post process analysis using historical data by the Real-Time Studies group.

Step 3.1 Primary Responsibility: Generation Operator

Utilize Attachment 1 to document completion of each step and to annotate applicable values.

Step 3.2 Primary Responsibility: Generation Operator

Inform the Security Operator of the generator to be tested.

Step 3.3 Primary Responsibility: Security Operator

Perform a security assessment with the generator at desired output to determine if a reliability concern exists.

Step 3.4 Primary Responsibility: Security Operator

Notify the Generation Operator of the security assessment results.

Step 3.5 Primary Responsibility: Generation Operator

Ensure the generator to be audited has a quality status of "Good" for the MW output SCADA using the "Analyst Quality Flags" display.

Instructions

- ☐ The generator's MW output SCADA must indicate the following: Quality of "Good" and have **no** flags applied in the Flag section.
- ☐ If the quality status is **NOT** "Good", respond to the failure of the Primary Source using CROP.27002 Telemetry and Topology Problems.

Notes

The test results are analyzed using the SCADA MW indication, so the generator is required to have a SCADA indication that is of good quality.

Step 3.6 Primary Responsibility: Generation Operator

Ensure the generator to be audited is NOT LEG'd.

Step 3.7 Primary Responsibility: Generation Operator

Ensure the generator to be audited is NOT on verbal dispatch.

Instructions

To access the ED Communication Status display:

- ☐ Click on "RTG";
- ☐ Click on "Related Displays" menu;
- ☐ Click on "Communication Status";
- ☐ The box next to the "Generator RTU" is **NOT** checked.

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Step 3.8 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- Audit cannot be performed due to reliability; Or
- Generator's MW output SCADA is NOT on the Primary or Secondary source.

Notify the Operations Shift Supervisor that the audit cannot be performed.

Step 3.8.1 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- If the audit is NOT being performed.

Log the reason for the cancellation.

Instructions

Use log entry: > TEST AND AUDITS > RESOURCES > Cancelled Audit

Step 3.8.2 Primary Responsibility: Operations Shift Supervisor

Condition(s) to perform this step:

- If the audit cannot be performed and it is an ISO-Initiated audit.

Notify Control Room Management that the audit cannot be performed using email distribution list "Control Room Mgmnt".

Step 3.9 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The audit will be performed.

Notify the Operations Shift Supervisor of the generator performing the audit and the approximate start time.

Notes

The Operations Shift Supervisor has final discretion of when to conduct the audit.

Step 3.10 Primary Responsibility: Operations Shift Supervisor

Initiate a shift brief.

Instructions

Engage the on-shift System Operators to provide and confirm the following information:

- ☐ Identify the following:
 - ☐ Generator to be audited
 - ☐ Starting MW value
 - ☐ Target MW value
 - ☐ Requested by party as indicated from application (Participant or ISO-NE)
 - ☐ Expected end point and termination process
- ☐ Confirm generator has dispatchable room to perform the audit
- ☐ Confirm approval based on reliability assessment
- ☐ Highlight the following expectations:
 - ☐ Use of Manual DDP to dispatch to starting MW Value
 - ☐ CROW application implemented
 - ☐ Identify log entry to be made

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Step 3.11 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The generator's output needs to be adjusted to have room to perform the audit for the requested MW amount and direction.

Dispatch the generator to the required starting MW value using a manual DDP.

Step 3.12 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The generator's output needs to be adjusted to have room to perform the audit for the requested MW amount and direction.

Log the manual dispatch

Instructions

Use log entry: > GENERATION > MANUAL DDP

Step 3.13 Primary Responsibility: Generation Operator

Set up and initiate the MRR audit.

Instructions

Set up the UDS "Unit Parameter Testing" page with the following information:

- ☐ Select the generator to be audited;
- ☐ Select "MRR" for the Type of test;
- ☐ Enter the Target MW value;
- ☐ Select the Requested by party as indicated from application (Participant or ISO-NE);
- ☐ Click the "Initiate test" button.

Notes

- A "**T**" will appear in the Performance Test column on the Unit Status display, "Performance Test of this Asset in Progress" will appear on the generator's Unit Specific display and UDS will display "Performance Test in Progress".
- The Man DDP used to dispatch the unit prior to the test is overwritten and replaced with the Target MW value when the "initiate test" button is clicked.

Step 3.14 Primary Responsibility: Generation Operator

Implement the audit outage application.

Step 3.15 Primary Responsibility: Generation Operator

Log the initiation of the MRR audit.


Instructions

Use the applicable log entry:

- ☐ > TEST AND AUDITS > RESOURCES > MRR > Participant Requested [E]
- ☐ > TEST AND AUDITS > RESOURCES > MRR > ISO-Initiated [E]

Notes

- Proper logging ensures the appropriate settlement of the Resource.
- If a Resource trips or cancels the audit after logging the initiation of the audit, then the end time of the audit is the time of the trip or cancelation and shall be noted in the comments field.

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Step 3.16 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The DE requests to terminate the demonstration; Or
- Demonstration is required to be terminated due to reliability; Or
- Contingency SPD is run during the audit duration; Or
- Generator trips off-line during the demonstration.

Terminate the audit early.

Instructions

Manually terminate the audit by using the "Terminate test" button in UDS.

Notes

- For a Market Participant requested MRR audit, the DE can request to terminate their test at any time regardless of whether the generator has reached the requested MW value or **NOT**.
- The Real-Time Studies group will analyze the results and determine if the generator passed or failed the demonstration.
- If the generator trips or fails to start, the demonstration has to be manually terminated prior to changing the UCM.
- If a Contingency SPD case is approved while a generator is conducting a MRR audit, the Contingency SPD target will override the manual DDP and the audit may be invalid.

Step 3.16.1 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The audit was terminated early.

Log the reason for the termination.

Instructions

Use log entry: > TEST AND AUDITS > RESOURCES > Cancelled Audit [E]

Step 3.17 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The target MW value has been reached.

End the MRR audit.

Step 3.17.1 Primary Responsibility: Senior System Operator

Confirm the Target MW value has been reached.

Step 3.17.2 Primary Responsibility: Generation Operator

Terminate Audit.

Instructions

To end an MRR Audit, click the "Terminate test" button.

Step 3.18 Primary Responsibility: Generation Operator


Enter the Test End Time in the previously made log entry.

Notes

- Proper logging ensures the appropriate settlement of the Resource.
- If a Resource trips or cancels the audit after logging the initiation of the audit, then the end time of the audit is the time of the trip or cancellation and shall be noted in the comments field.

Step 3.19 Primary Responsibility: Generation Operator

Complete the outage application with the test end time.

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Section 4 : Conduct a Demand Response Resource (DRR) Audit

Notes

- The DRR Auditing tool is populated every hour, within the first minute, with the suggested resources to be audited and suggested start times.
- “Time that DRR Audit Data was Last Received” and “Number of auditing DRRs received” is shown on the top of the DRR Auditing display.
- If at any time the Control Room is notified by the Asset Registration and Auditing (ARA) Group or the DDE of a change to the plan or cancellation, the “Get ATT Data” button MUST be clicked to refresh the display with the updated audit plan.**
- The types of audits are:
 - Capability Audits (CCAs) – Labeled as CAP on the DRR Auditing display
 - Claim 10/30 – Labeled as CLAIM on the DRR Auditing display
 - Combined Claim 10/30 and CCA – Labeled as BOTH on the DRR Auditing display
- There are no Operator actions required to end a DRR audit.
- Release for Dispatch Time throughout this section is referred to as “RFD Time” to align with EMS nomenclature.

Step 4.1 Primary Responsibility: Generation Operator

Utilize Attachment 1 to document completion of each step and to annotate applicable values.

Step 4.2 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- If the DDE calls the Control Room to cancel an audit and the audit has NOT been initiated.**

Request the DDE to cancel the audit in the DR ATT system.

Notes

The audit can only be cancelled by the DDE through the DR ATT system.

Step 4.3 Primary Responsibility: Operations Shift Supervisor

Verify the DRR audit data has been updated.

Instructions

- ☐ Verify the “Time that DRR Audit Data was Last Received:” reflects the same clock hour it is desired to perform the audit.
- ☐ If the DRR ATT Data does not automatically update:
 - ☐ Click the “Get ATT Data” button within the same clock hour it is desired to perform the audit;
 - ☐ Verify the “Time that DRR Audit data was last received” timestamp and “Number of auditing DRRs received” updates.

Notes

The ATT data refreshes automatically each clock hour. In the event that it does not refresh for the desired clock hour, the Operator must manually retrieve the data.

Step 4.4 Primary Responsibility: Operations Shift Supervisor

Notify the Control Room Operators of the scheduled audits and time frame for the audit.

Instructions

- ☐ Access and review the DRR Auditing display to determine if a DRR audit is scheduled.
- ☐ The DRR “Audit Request” Flag is set on the DRR Auditing Display.
- ☐ The last day for performing the audit is provided in the "Due Date" column.

Notes

The "Due Date" field will be highlighted for audits that are due to be performed on the current day.

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Step 4.5 Primary Responsibility: Generation Operator

Determine when the audit should be conducted.

Instructions

- ☐ Adhere to the allowable time for **Participant** requested audits
 - ☐ Non-NERC Holiday weekdays between 0800 and 2200.
NOTE: A non-Fast Start DRR audit commitment may carry beyond 2200, provided that the Audit End Time is prior to 2200.
- ☐ Fast Start DRRs have built in checks within EMS whenever you select an audit.
 - ☐ Time checks do not apply to ISO requested audits
- ☐ Access the DRR Auditing Display
 - ☐ For Fast Start DRRs
 - ☐ Determine resource availability for the audit period
 - ☐ Select the “Sel. Audit” Checkbox for the applicable resource to be audited;
 - ☐ Verify the Audit Duration
 - ☐ Verify the “Audit Start Time” and “Audit End Time” fields populate;
 - ☐ Compare the “Audit Start Time” and “Audit End Time” to the “Unavail” flags in the DRR Limits display AND to the Fast Start Daily Eligible flags from the Fast Start Manual Dispatch display “DRR Daily Eligible” tab to determine availability.
 - ☐ During ALL hours of the audit period there must be either:
 - ☐ No “Unavail” flags set; Or
 - ☐ An “Unavail” flag is set but there are corresponding blank checkboxes in the “Current” column; And
 - ☐ The Fast Start Daily Eligible flags are set on the Fast Start Manual Dispatch display “DRR Daily Eligible” tab.
 - ☐ Deselect the “Sel. Audit” Checkbox
 - ☐ For non-Fast Start DRRs
 - ☐ Enter the RFD Time in the following format [MM/DD/YY HHMM:SS] to populate the “Audit Start Time” and “Audit End Time”
 - ☐ Verify the “Audit Duration”
 - ☐ Verify the “Min Reduction Time” on the DRR Limits page
 - ☐ Verify “Notify Time” & “Startup Time” populates and coincides with the “Notify Hours” and “Startup Hours” based on the RFD Time entered
 - ☐ Compare the “Audit Start Time” and “Audit End Time” to the “Unavail” flags in the DRR Limits display to determine availability, adjust the RFD Time as necessary.
 - ☐ Clear the information by clicking the “X”.

Notes

- When evaluating DRR Availability, the “Unavail” fields in the DRR Limits display is as follows:
 - The “Original” column indicates the resource’s original offer. If no redeclaration has been made, the original offer is applied and no boxes will be populated in the “Current” column.
 - If the “Unavail” status is redeclared via the E-Market tool, a blank checkbox will appear in the “Current” column, indicating the current status. As long as the “Current” check box is visible, then that indicates there was a redeclaration, a flag does NOT need to be set for the resource to be declared available.

Step 4.6 Primary Responsibility: Generation Operator

Determine the Dispatch Zone for each DRR to be audited and the MW amount for each Dispatch Zone.

Notes

- Dispatch zone for a DRR can be identified using the DRR Status display or any of the individual DRR displays accessed via the DRR Status display.
- Purpose of determining the dispatch zone and MW amount is to determine if auditing the DRR has the potential to create or worsen an export constraint.

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Step 4.7 Primary Responsibility: Security Operator

Condition(s) to perform this step:

- If the dispatch has the potential to create or worsen an export constraint.

Perform a security assessment for the audit.

Notes

A Real-Time snap shot or saved case needs to be retrieved before performing any actions associated with a security assessment.

Step 4.7.1 Primary Responsibility: Security Operator

Copy RTDR into STDR.

Instructions

Copy RTDR into STDR by:

- ☐ Clicking the "PWR" button;
- ☐ Clicking the "STDR" button;
- ☐ Clicking the "Copy Clone of RTDR DRMOM" button.

Step 4.7.2 Primary Responsibility: Security Operator

Setup STDR for study.

Instructions

Setup STDR for study by:

- ☐ Clicking the "STDR" button;
- ☐ Clicking the "Clear MWs" button to remove all previous entries;
- ☐ Clicking the "Snapshot Load" button to provide a load reference;
- ☐ Clicking the "Update Display" button to establish initial conditions.

Step 4.7.3 Primary Responsibility: Security Operator

Enter the MW amount associated with each DRR that will have an audit performed.

Notes

DRR MW amounts can be entered and studied at the following levels:

- ISO-NE wide
- Load Zone level
- Dispatch Zone level
- Specific DRR level
- Combination of any of the above

Step 4.7.4 Primary Responsibility: Security Operator

Click "Run Pwrflow with DR" to run Powerflow with audit MW amounts entered.

Notes

DR will only be included in Powerflow solutions when "Run Pwrflow with DR" is clicked. Running Powerflow using any other method will NOT include the effects of DR in the result.

Step 4.7.5 Primary Responsibility: Security Operator

Return the interchange deviation with NYISO to zero by adjusting generation external to the study area.

Notes

Ensure the "Run Pwrflow with DR" button is used.

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Step 4.7.6 Primary Responsibility: Security Operator
Check Powerflow base case to verify a valid solution with no base case exceedances.

Step 4.7.7 Primary Responsibility: Security Operator
Utilize ILC Powerflow and STCA to determine if the audit will create or worsen any contingency exceedances.

Step 4.7.8 Primary Responsibility: Security Operator
Notify the Control Room Operators of the security assessment results.

Step 4.8 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- If it was determined the DRR audit would NOT create or worsen an export constraint.

Verify the DRR(s) can be audited.

Instructions

On the DRR Auditing display, verify the “Bad” check box is NOT checked for any DRR to be audited. “Bad” flag means Bad RTU Configuration.

Step 4.8.1 Primary Responsibility: Generation Operator


Condition(s) to perform this step:

- If the "Bad" configuration checkmark is present.

Notify the IT On Call Technician that the "Bad" configuration is present.

Step 4.8.2 Primary Responsibility: Generation Operator
Ensure the "Disable Auto-UCM" checkbox is NOT set.

Step 4.8.3 Primary Responsibility: Generation Operator
Actions for implementing an audit.

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Step 4.8.3.1 Primary Responsibility: Operations Shift Supervisor
Initiate a shift brief.

Instructions

Engage the on-shift System Operators to provide and confirm the following information:

- ☐ Identify the following:
 - ☐ DRR to be audited
 - ☐ Type of audit
 - ☐ Audit duration
 - ☐ DRR availability to perform audit within required times
 - ☐ Type of DRR (Fast Start or Non-Fast Start)
 - ☐ For Non-Fast Start audits:
 - ☐ Notify Time from DRR Audit display
 - ☐ Expected RFD Time
 - ☐ CD period to provide Forecaster
 - ☐ Start Time from DRR Audit display
 - ☐ Expected end time and termination process
- ☐ Confirm approval based on reliability assessment
- ☐ Highlight the following expectations:
 - ☐ Initiation process with DDE, if applicable
 - ☐ Provide Loader Operator with Expected Release for Shutdown time for non-Fast Start DRR

Notes

- The time period of the CD will start with the RFD Time and adding the **GREATER** of either: The RFD Time plus the Audit Duration (1 hour) or the resource's Min Interrupt Time.
- For non-Fast Start DRRs: The RFD Time must be entered by the CR Operator in order for the Notify Time and Startup Time to populate. Once entered, these values do not need to be removed.
- For DRR's with a difference between Max Red and Min Red; The Audit Start time will be based on the MRR and added to the RFD Time. Audit Start Time = RFD Time + (Max Red – Min Red) / MRR

Step 4.8.3.2 Primary Responsibility: Generation Operator
Identify the specifics associated with the audit.

Instructions

Identify the following:


- ☐ Is the DRR currently:
 - On line (UCM 4); Or
 - Off line (UCM 1 or UCM 2);
 - A Fast Start: is the resource bid in as a Fast Start or NOT.
- ☐ Type of audit:
 - CAP: Capability Audit;
 - CLAIM: Claim 10/30 audit;
 - BOTH: a combined Claim 10/30 audit that transitions into a Capability audit.

CAP - For only Capability Audit types

- ☐ For a non-Fast Start in a UCM 1 or 2 performing a Capability audit go to [Step 4.8.3.3](#)
- ☐ For an on line DRR performing a Capability audit go to [Step 4.8.3.4](#)
- ☐ For a Fast Start in UCM 2 performing a Capability audit go to [Step 4.8.3.5](#)

CLAIM or Both

- ☐ Go to [Step 4.8.3.5](#)

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Step 4.8.3.3 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- If it is a Capability Audit (CAP) for an off line non-Fast Start DRR.

Initiate a CAP Audit of an off line non-Fast Start DRR.

Instructions

Perform the following to initiate the audit for this condition:

- ☐ Determine the RFD Time
NOTE: the RFD Time is required to be on an hour boundary to align with the CD
- ☐ Access the DRR Audit display
- ☐ Enter the RFD Time [required format: MM/DD/YY HHMM:SS]
- ☐ Prior to the Notify Time, shown on the Audit display, perform the following:
- ☐ Notify the Forecaster to manually create a CD for the audit
 - ☐ Provide the Forecaster with the time period of the CD, starting with the RFD Time and adding the **GREATER** of either: The total of RFD Time plus the Audit Duration (1 hour); or the resource's Min Interrupt Time.
- ☐ Contact the DDE and announce the commitment and audit times
NOTE: the CD and call to the DDE must occur NO longer than 5 minutes apart
- ☐ A CCA is being performed.
- ☐ Time expected to start reducing ("Startup Time" on DRR Audit display)
- ☐ Expectation to go to Max Reduction
- ☐ Start Time of the CCA
- ☐ Duration of CCA (1 Hour for DRRs)
- ☐ Click "Submit" checkbox
- ☐ Verify the checkmark populated in the "Submit" box
- ☐ Notify the Loader Operator of the expected Release for Shutdown time (Expected end of Minimum Interrupt Time or the Audit End Time, whichever is greater).

Notes

Examples:

- If the RFD Time is 1800 and the Audit Start Time and Audit End Time is from 1900 – 2000; The CD would be HE19 – 20.
- If the RFD Time is 1800 and the Audit Start Time and Audit End Time is from 1900 – 2000; but the resources Min Interrupt Time is 3 hours; The CD would be HE19 – 21.
- The resource has the option to waive the minimum interrupt time after the audit completion.

Step 4.8.3.4 Primary Responsibility: Generation Operator

Condition(s) to perform this step:


- If it is a Capability Audit (CAP) for an on line DRR in a UCM 4.

Initiate a CAP Audit for an on line DRR.

Instructions

Perform the following to initiate the audit for this condition:

- ☐ Access the DRR Audit display;
- ☐ Select the DRR(s) to be audited by setting the flag in the "Sel. Audit" column;
- ☐ Notify the Forecaster of the audit to be performed, a CD may be needed for the additional hours;
- ☐ Click the "Initiate Audit" button;
- ☐ Click the "Yes" button on the popup.

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Step 4.8.3.5 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- If it is a Capability Audit (CAP) for an off line Fast Start DRR in a UCM 2; Or
- If it is a Claim 10/30 audit (CLAIM) for an off line Fast Start DRR in a UCM 2; Or
- If it is a combined Claim 10/30 audit and Capability Audit (BOTH) for an off line Fast Start DRR in a UCM 2.

Initiate an audit for an off line DRR in a UCM 2.

Instructions

Perform the following to initiate the audit for this condition:

- ☐ Access the DRR Audit display;
- ☐ Select the DRR(s) to be audited by setting the flag in the "Sel. Audit" column;
- ☐ Click the "Initiate Audit" button;
- ☐ Click the "Yes" button on the popup.

Step 4.9 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- An audit must be manually terminated.

Actions for manually terminating an audit.

Instructions

- ☐ If a CD was NOT created for the audit (started as a Fast Start), go to [Step 4.9.1](#) to terminate the audit.
- ☐ If a CD was created for the audit, determine if the DRR has either:
 - ☐ NOT reached the RFD Time for the audit go to [Step 4.9.2](#) to terminate the audit; Or
 - ☐ Reached the RFD Time but has not reached the audit end time go to [Step 4.9.3](#) to terminate the audit.

Step 4.9.1 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- An audit CD was NOT created and the audit was performed on a DRR that was started as a Fast Start; And
- Audit for a Fast Start DRR needs to be terminated before scheduled audit completion time; Or
- Audit for a Fast Start DRR needs to be terminated for reliability; Or
- Audit for a Fast Start DRR did not complete automatically.

Terminating an audit for a DRR that was started as a Fast Start and a CD was NOT created

Instructions

Perform the following actions:

- ☐ Notify the DRR's DDE of the audit termination;
- ☐ Select the DRR(s) audits to be cancelled by setting the flag in the "Sel. Audit" column;
- ☐ Click the "End Selected Audits" button;
- ☐ Click the "Yes" button on the popup.

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Step 4.9.2 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- An audit CD was created and the audit is being terminated prior to the RFD Time.

Terminating an audit prior to reaching the RFD Time.

Instructions

Perform the following:

- ☐ Notify the DRR's DDE of the audit termination and cancelling of the start up;
- ☐ Notify the Forecaster of the DRR audit termination, CD will need to be cancelled;
- ☐ Uncheck the "Submit" checkbox.

Step 4.9.3 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- An audit CD was created and the audit is being terminated between the RFD Time and the Audit End Time.

Terminating an audit after the RFD Time but prior to reaching the audit end time when an audit CD was created.

Instructions

Perform the following:

- ☐ Notify the DRR's DDE of the audit termination;
- ☐ Notify the Forecaster of the DRR audit termination, CD will need to be cancelled for future hours;
- ☐ Select the DRR(s) audits to be cancelled by setting the flag in the "Sel. Audit" column;
- ☐ Click the "End Selected Audits" button;
- ☐ Click the "Yes" button on the popup.

Step 4.9.4 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- If a DRR Audit was terminated prior to completion.

Log the DRR audit termination.

Instructions

Use log entry: > TEST AND AUDITS > RESOURCES > Cancelled Audit [E]

Step 4.10 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- If it was determined the DRR audit would create or worsen an export constraint; And
- The audit cannot be performed prior to the due date.

Log that the DRR audit cannot be performed by the due date.

Instructions

Use log entry: > TEST AND AUDIT> RESOURCES > DRR Audit Not Complete by Due Date

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Step 4.11 Primary Responsibility: Loader Operator

Condition(s) to perform this step:

- A non-Fast Start DRR has reached its Audit End Time; And
- The resource's Min Interrupt Time has elapsed, or been waived.


Release the DRR for shut down by using the Release for Shut Down (RSD) button.

Step 4.12 Primary Responsibility: Loader Operator

Condition(s) to perform this step:

- A Fast Start DRR has reached its audit end time; Or
- A Fast Start DRR audit has been terminated; And
- The resource's Min Interrupt Time has elapsed; And
- The resource is not in rate.

Verify the DRR is recommended for shutdown in RTUC Commitments and Decommits.

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Condition(s) to perform this section:

- DDE Notified Control Room of a DRR Audit Modification or Cancellation.

Section 5 : Demand Designated Entity (DDE) Modifies or Cancels a Demand Response Resource (DRR) Audit

Notes

DDEs will perform the actual cancellation of resources through their on-line software tools. They are instructed to notify the ISO Control Room to ensure that any modified or cancelled audits are not performed inadvertently after the cancellation.

Step 5.1 Primary Responsibility: Generation Operator

Update the DRR audit data.

Instructions

- ☐ Navigate to the DRR Auditing display;
- ☐ Click the “Get ATT Data” button;
- ☐ Verify the “Time that DRR Audit data was last received” timestamp and “Number of auditing DRRs received” updates.

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Condition(s) to perform this section:

- DE requests to perform a Dual Fuel Audit.

Section 6 : Conduct a Dual Fuel Audit

Notes

- Dual fuel generator capability audits are performed in accordance with OP-23 Resource Auditing.
- Dual fuel auditing is required to be scheduled using the ISO Outage Scheduling software. Dual fuel audits that are requested in Real-Time will be granted with an application.
- If a Resource trips or cancels the audit after logging the initiation of the audit, then the end time of the audit is the time of the trip or cancelation and shall be noted in the comments field.

Step 6.1 Primary Responsibility: Generation Operator

Utilize Attachment 1 to document completion of each step and to annotate applicable values.

Step 6.2 Primary Responsibility: Generation Operator

Access the generator's audit plan.

Notes

The generator's audit plan will be in the outage application.

Step 6.3 Primary Responsibility: Generation Operator

Contact and discuss the audit plan with the DE.

Notes

The audit plan should be written that the generator will perform at maximum output for at least one hour.

Step 6.4 Primary Responsibility: Generation Operator

Inform the Security Operator, Senior System Operator, and Operations Shift Supervisor of the generator requesting to perform the audit and the specifics of the plan.

Step 6.5 Primary Responsibility: Security Operator

Perform a security assessment on the peak study (PC) case and on a real-time snapshot.

Notes

- A fuel swap may take several hours to perform, so the security assessment is done on both the peak study case and a Real-Time snapshot.
- The generator may be off-line or on-line to perform the dual fuel swap.
- The duration and specifics of the fuel swap may be identified in the generator's audit plan or NX12 information.

Step 6.5.1 Primary Responsibility: Generation Operator


Condition(s) to perform this step:

- The generator was not part of the Day Ahead commitment.

Notify the associated LCC Operator(s) of the dual fuel audit.

Step 6.5.2 Primary Responsibility: Security Operator

Notify the Generation Operator and Operations Shift Supervisor of the ISO and LCC security assessment results.

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Step 6.6 Primary Responsibility: Senior System Operator
Perform an assessment on capacity and reserves.

Step 6.6.1 Primary Responsibility: Senior System Operator
Notify the Operations Shift Supervisor of the capacity and reserve assessment results.

Step 6.7 Primary Responsibility: Operations Shift Supervisor
Determine if the audit will be performed.

Step 6.8 Primary Responsibility: Operations Shift Supervisor
Notify the Control Room Operators and Forecaster of the determination.

Step 6.8.1 Primary Responsibility: Operations Shift Supervisor
Initiate a shift brief.

Instructions

Engage the on-shift System Operators to provide and confirm the following information:

- ☐ Identify the following:
 - ☐ Generator to be audited
 - ☐ Duration of audit
 - ☐ Target MW value
 - ☐ Expected end point and termination process
- ☐ Confirm approval based on reliability assessment.
- ☐ Confirm approval based on capacity assessment
- ☐ Highlight the following expectations:
 - ☐ Communication with DE
 - ☐ DE provides the following:
 - ☐ Time of fuel swap start
 - ☐ Time stable at Eco Min on oil
 - ☐ Time at Eco Max on oil
 - ☐ Time generator completes 1hr at max output
 - ☐ Time of audit completion
 - ☐ Eco Min and Eco Max updated at specified times
 - ☐ Notifications to Forecaster
 - ☐ Identify log entry to be made and updated

Step 6.8.2 Primary Responsibility: Generation Operator


Condition(s) to perform this step:

- The audit has been denied.

Log the audit denial and identify the reason for the denial.

Instructions

- Use log entry: > TEST AND AUDITS > RESOURCES > DUAL FUEL AUDITS > Generator Dual Fuel Audit Denied [E]
- ☐ Select "Audit" activity

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Step 6.9 Primary Responsibility: Generation Operator

Notify the DE of the status of the request.

Instructions

If the audit is approved, inform the DE the following items need to be communicated at ISO:

- ☐ Time fuel swap started;
- ☐ Time stable at economic minimum on oil including Eco Min value;
- ☐ Time the generator is at maximum output including Eco Max value;
- ☐ Time the generator has completed one hour at maximum output;
- ☐ Time the audit is complete.

Step 6.10 Primary Responsibility: Generation Operator

Implement the outage application.

Step 6.11 Primary Responsibility: Generation Operator

Notify the Forecaster that approval for the audit has been given to the DE and the time period of the audit.

Instructions

Identify the first hour of the current CD for the resource.

Notes

The Forecaster will provide the CD Start Hour. A new CD may not have been issued specifically for the test itself, and could be the time of commitment from the DAM or another CD.

Step 6.12 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The audit has been approved and the generator has phased on line; Or
- The audit has been approved and the generator is on line when the audit starts.

Log the audit approval.

Instructions

Use log entry: > TEST AND AUDITS > RESOURCES > DUAL FUEL AUDIT > Generator Dual Fuel Audit [E]

- ☐ Select "Generator" being audited
- ☐ Enter "CD Start Hour"

Notes

The time the log entry was created will automatically be populated in the "Audit Start Time" well.

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Step 6.13 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- When notified by the DE that the fuel swap has started.

Access the audit log entry and enter the time the fuel swap started in the "Fuel Swap Start Time" well.

Instructions

For generators that will swap fuels while on line:

- ☐ Verify the generator is in a UCM 3;
- ☐ Instruct the DE to contact the ISO when the generator is stable at Eco Min on oil.

For generators that have to shut down:

- ☐ Release the generator for shut down by using the "RSD" button);
- ☐ Instruct the DE to notify the ISO when it has reached the Eco Min on secondary fuel source.

Notes

If the generator had to shut down for the audit, place them in a UCM 2 when they are off line.

Step 6.14 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- Being stable at economic minimum is part of the audit plan and the DE notified ISO-NE that the generator is stable at economic minimum on oil.

Update the Eco Min to the specified value.

Notes

The economic minimum needs to be updated for settlements purposes.

Step 6.14.1 Primary Responsibility: Generation Operator

Access the audit log entry and enter the time that the generator was stable at Eco Min in the "Stable on Oil Time" well.

Step 6.15 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- Notified by the DE that the generator is at maximum output on oil.

Update the Eco Max to the specified value.

Notes

The Eco Max will represent the maximum output on the secondary fuel source.

Step 6.16 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- Notified by the DE that the generator has completed operating for one hour at maximum output.

Access the audit log entry and enter the time that the generator completed one hour of operation at maximum output in the "Completed Max Output Time" well.

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Step 6.17 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- If the audit must be terminated early for system reliability.

Terminate the audit for reliability reasons by notifying the DE.

Step 6.17.1 Primary Responsibility: Generation Operator

Access the audit log entry and enter a comment specifying the time the audit was terminated and a reason for the termination.

Notes

- Proper logging ensures the appropriate settlement of the Resource.
- If a Resource trips or cancels the audit after logging the initiation of the audit, then the end time of the audit is the time of the trip or cancelation and shall be noted in the comments field.

Step 6.18 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- When notified by the DE that the generator has completed its audit; Or
- Notified by a DE that they are terminating the audit.

End the audit when notified by the DE it is completed.

Instructions

Update the UCM.

Notes

The Control Room Operators do **NOT** determine if the audit was successful or **NOT**, that determination is made after the audit has been performed.

Step 6.18.1 Primary Responsibility: Loader Operator

Verify the generator is following dispatch.

Instructions

If it appears the generator is **NOT** following dispatch instructions, contact the DE and determine if there is an issue.

Step 6.18.2 Primary Responsibility: Generation Operator

Access the audit log entry and enter the audit completion time in the "Audit Completion Time" well.

Notes

If a Resource trips or cancels the audit after logging the initiation of the audit, then the end time of the audit is the time of the trip or cancelation and shall be noted in the comments field.

Step 6.19 Primary Responsibility: Generation Operator

Condition(s) to perform this step:

- The Forecaster or LCC was notified of the audit.

Notify the Forecaster and associated LCC Operator(s) that auditing is complete.

Step 6.20 Primary Responsibility: Generation Operator

Complete the outage application with the Test End time.

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Step 6.21 Primary Responsibility: Generation Operator


Condition(s) to perform this step:

- If the audit is NOT being performed and it is the last day of the audit period.

Log the cancellation.


Instructions

Use log entry: > TEST AND AUDITS > RESOURCES > Cancelled Audit [E]

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Revision History

Rev. No.	Date (MM/DD/YY)	Reason	Contact
--	09/02/20	For previous revision history, refer to Rev 29 available through Ask ISO	Steven Gould
30	11/12//20	Modified Step 6.9 and 6.10 for adding new CD information to log entry.	Steven Gould
31	01/22/21	Added notes for clarification when a resource trips or cancels an audit, noted ESD do not have to redeclare the ECOMIN and provided a note that there are no Operator actions to end a DR audit.	Steven Gould
32	03/23/21	Modified Condition to Perform Step 4.7.6. Added Note to 6.15.1. Corrected Rev History for rev 31. Added new Step 6.18.	Steven Gould
33	06/15/21	Updated references, removed section numbers referenced in other CROPs, Removed standard of completion contained in Common Procedure Information; Modified Step 4.6.1; Added hyperlinks to Step 4.7.3.2 & 4.7.4.1, Added notes to Step 6.4	Steven Gould
34	07/01/21	Step 4.2 modified and instructions to verify updated information. Also added instruction to Step 5.1, Added instruction to Step 6.8, Added condition to enter to Step 6.13; reformat of TOC	Steven Gould
35	09/29/22	Clarified Step 1.21, Added Step 1.22, Added condition to enter for Step 2.9, Clarified Step 2.20, Added Step 2.21, Clarified Step 3.15 & 3.16, Added Notes to 4.7.3.1, Corrected instructions in Step 4.7.3.3 and added Notes, Modified Instructions in Step 4.4, Added condition to enter in Step 6.4.1, Added Step 6.9 and 6.19, Restructured Steps and Substeps of 4.7.4 into Steps and Substeps of 4.8; Added Attachment 1- Audit Checklist.	Jonathan Gravelin
36	11/14/22	Added Step 3.6 & 3.7; Removed Note from Step 4.4 due to software update; fixed hyperlinks throughout procedure; Added Notes to Section 6; Added Condition to Enter Step 6.18; Modified Condition to Enter Step 6.18	Jonathan Gravelin
37	01/09/23	Added Instruction to Step 4.3; Clarified instruction and notes of Step 4.5; Added information to DRR portion of checklist; Added information to Section 5 to line up with the requirements of OP23.	Jonathan Gravelin
38	09/25/23	Updated OP23 title where applicable; Updated Procedure Background; Added Information to Step 4.3; Updated Attachment 1. Deleted a Note from Step 1.19.2.	Jonathan Gravelin
39	04/23/24	Updated Section 4 with EMS update.	Jonathan Gravelin

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Attachment 1 – Audit Checklist

A controlled copy of this attachment is maintained in the control room to assist with conducting resource audits

1. Resource to be audited (EMS identifier/Asset ID) _____

2. Type of audit being conducted

- ☐ Generator Claim 10/30
- ☐ Generator CCA - Establish or ISO Initiated
- ☐ Generator Claim 10/30 & CCA
- ☐ Generator MRR
- ☐ DRR
- ☐ Dual Fuel

3. Notification of audit information to LCC if required

☐ Completed ☐ N/A

4. Eligibility of Resource to be audited:

- ☐ The generator is a “Fast Start” generator per the Fast Start Manual Dispatch “Daily Eligible” page.
- ☐ Generator has good MW data per the “Analyst Quality Display” and has **NO** flags applied.
- ☐ Generator is not LEG’d.
- ☐ Generator is not on verbal dispatch as shown on the Communication Status page.
- ☐ Have Security Operator perform an assessment of the audit.

5. Requested by

- ☐ Participant
- ☐ ISO-NE


6. Audit Start time: _____

7. Audit Duration: _____

8. Audit End time: _____

9. Commitment Decision (CD) Period provided to Forecaster

☐ Yes ☐ N/A

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Generator Claim 10/30 Audit

- ☐ Target MW value to be used: _____

For a **Participant** requested audit

- ☐ If the Target MW value has a non-zero decimal, use the next highest whole number as the target MW value for the audit.
- ☐ If the Target MW value is below Eco Min, use the Eco Min

For an **ISO-Initiated** audit:

- ☐ If the Target MW value is greater than the Eco Max, use the Eco Max.
- ☐ If the Target MW value is below Eco Min, use the Eco Min.
- ☐ If the Target MW value is between Eco Max and Eco Min, use the Target MW value.


- ☐ Eco Max to be used: _____

Note: An Eco Max value should be redeclared even if it is the same as the bid in value

- ☐ If the Target MW value is less than the offered Eco Max value, enter a redeclaration equal to the offered Eco Max
- ☐ If the Target MW value is equal to or greater than the offered Eco Max value, enter a redeclaration that is 1 MW greater than the Target MW value

Set up UDS Unit Parameter Testing page and initiate audit:

- ☐ Select the generator
- ☐ Select "Claim Cap"
- ☐ Enter Target MW
- ☐ In the "requested by" drop down select "Participant" or "ISO-NE"
- ☐ Once desired Start time is reached, click "Initiate test"
- ☐ For a **Participant** Requested audit:
 - ☐ Set the SS Flag for the hour(s) of the audit
- ☐ Notify Loader to place in UCM 4 when on-line
- ☐ Implement outage application with audit start time
- ☐ Log the audit:
 - ☐ TEST AND AUDITS > RESOURCES > Claim 10/30 > Participant Requested [E]
 - ☐ TEST AND AUDITS > RESOURCES > Claim 10/30 > ISO-Initiated [E]
- ☐ Terminate the audit after 35 minutes or the generators ERT has elapsed.
 - ☐ Confirm with Senior that the audit window has elapsed
 - ☐ Click "Terminate Test" button in UDS if
 - ☐ Remove SS flag
 - ☐ Remove any redeclarations entered for the audit
 - ☐ Complete the outage application with audit end time
- ☐ Complete log entry with the audit end time

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Generator CCA - Establish or ISO-Initiated Audit

Communicate the following to the DE:

- ☐ A Claimed Capability Audit is being performed:
- ☐ For Generators that are **OFF-LINE**
Time of expected breaker closure (provided by the Senior System Operator, if the audit is being initiated from an offline status for a non-Fast Start generator): _____
- ☐ For Generators that are **ON-LINE**
Time unit will be placed in UCM 3 to ramp to full output: _____
- ☐ Instructions for the generator to go to "Full Output" _____
- ☐ First full clock hour of the CCA: _____
- ☐ Duration of the CCA (provided in the outage request or as determined in Step 2.6) _____


After notifying the DE:

- ☐ Implement the audit outage application
- ☐ Set the SS flag for the ramp and duration of the test for a **Participant** requested CCA
- ☐ Redeclare the Eco Max and Eco Min values to the expected full output value
- ☐ Select "OT" as the reason code for the Eco Min value
- ☐ Log the Initiation of the Audit
 - ☐ For an Establish CCA use log entry: > TEST AND AUDITS > RESOURCES > CCA > Establish [E]
 - ☐ For an ISO-Initiated CCA use log entry: > TEST AND AUDITS > RESOURCES > CCA > ISO-Initiated Audit [E]
- ☐ Place the Generator in UCM 3 when it phases on-line OR at the time specified to ramp to full output
- ☐ Terminate the audit after the audit duration has elapsed
 - ☐ Confirm with Senior that the audit window has elapsed
 - ☐ Notify the DE of the following:
 - ☐ The CCA has ended
 - ☐ Return the Generator to dispatch
 - ☐ Follow DDPs
 - ☐ Return the generator to UCM 4
 - ☐ Verify the generator is following dispatch
 - ☐ Complete the log entry with the audit end time
- ☐ Complete the outage application with the audit end time

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Generator MRR Audit

- ☐ Starting MW value _____
- ☐ Target MW value to be used _____
- ☐ Confirm generator has dispatchable room to perform audit, otherwise perform manual dispatch.
- ☐ Dispatch generator to Starting MW value with Manual DDP if required
 - ☐ Log the Manual DDP:
 - ☐ GENERATION > Manual DDP
- ☐ Set up UDS Unit Parameter Testing page and initiate audit:
 - ☐ Select the generator
 - ☐ Select “MRR”
 - ☐ Enter Target MW
 - ☐ In the “requested by” drop down select “Participant” or “ISO-NE”
 - ☐ Once desired Start time is reached, click “Initiate test”
- ☐ Implement outage application with audit start time
- ☐ Log the audit;
 - ☐ TEST AND AUDITS > RESOURCES > MRR > Participant Requested [E]
 - ☐ TEST AND AUDITS > RESOURCES > MRR > ISO-Initiated [E]
- ☐ Terminate the audit after the Target MW value is reached
 - ☐ Confirm with Senior the Target MW value is reached
 - ☐ Click “Terminate Test” button in UDS
 - ☐ Complete the outage application with audit end time
- ☐ Complete log entry with the audit end time

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DRR Audit

- ☐ Within the same clock hour of the intended Audit Start time:
 - ☐ Verify the “Time that DRR Audit Data was Last Received:” reflects the desired clock hour
 - ☐ If the DRR ATT Data does not automatically update:
 - ☐ Click the “Get ATT Data” button
 - ☐ Verify the “Time that DRR Audit data was last received” timestamp and “Number of auditing DRRs received” updates.
- ☐ Verify “Audit Request” Flag is set
- ☐ Last day for audit provided in “Due Date” column
- ☐ Determine the resource availability for the audit period:
 - ☐ Click “Sel. Audit” checkbox for the resource to set the flag and populate the following:
 - ☐ Verify “Audit Start Time” and “Audit End Time” fields populate
 - ☐ Compare the “Audit End Time” to the “Unavail” flags in the DRR limits display (Refer to Step 4.5)
 - ☐ Click the “Sel. Audit” checkbox for the resource to remove the flag
- ☐ Verify “Bad” check box is not selected
- ☐ Ensure “Disable Auto UCM” is not selected on the DRR limits page
 - ☐ This is a global setting and does not have to be verified for each asset
- ☐ DRR is currently
 - ☐ On line UCM 4
 - ☐ Off line UCM 1 or UCM 2
 - ☐ Fast Start
- ☐ CAP Audit for non-Fast Start DRR
 - ☐ Click “Sel. Audit”
 - ☐ Enter the RFD time [MM/DD/YY HHMM:SS]
 - ☐ Notify Forecaster of CD time period
 - ☐ See Notes in Section 4 to determine the CD time period.
 - ☐ Contact the DE and discuss the following:
 - ☐ CCA is being performed
 - ☐ Time expected to Start reducing
 - ☐ Expectation to go to “Max Reduction”
 - ☐ Start time of the CCA
 - ☐ Duration of the CCA (1 Hour)
 - ☐ Click “Submit”
 - ☐ Verify the checkmark populated in the “Submit” box
 - ☐ Notify the Loader of the audit end time and/or expected RSD time
- ☐ CAP Audit for an on-line DRR
 - ☐ Click the “Sel. Audit”
 - ☐ Notify Forecaster of CD time period (CD may be needed for additional hours)
 - ☐ Click “Initiate Audit”
 - ☐ Acknowledge pop-up
 - ☐ Notify Loader of audit end time and/or expected RSD time
- ☐ Fast Start DRR audit (Claim 10/30, CAP or BOTH)
 - ☐ Click the “Sel. Audit” for the DRR’s to be audited
 - ☐ Click “Initiate Audit”
 - ☐ Acknowledge pop-up
 - ☐ Verify DRR’s populate in RTUC Commitments and Decommitments for shutdown as appropriate

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Dual Fuel Audit

- ☐ Contact the DE to discuss the audit plan & required information to be communicated
 - ☐ Time of fuel swap start _____
 - ☐ Time stable on oil at Eco Min _____
 - ☐ Eco Min on Oil value _____
 - ☐ Redeclared in EMS _____
 - ☐ Time on Eco Max on oil _____
 - ☐ Redeclared in EMS _____
 - ☐ Time generator completes 1 hr at max output _____
 - ☐ Time of audit completion _____
- ☐ Implement the outage application
- ☐ Notify the forecaster and the time period of the audit
 - ☐ Identify the first hour of the CD
- ☐ Log the DFA when the Generator phases on-line OR at the time of the fuel swap time if already on-line
 - ☐ > TEST AND AUDITS > RESOURCES > DUAL FUEL AUDIT > Generator Dual Fuel Audit [E]
- ☐ Update the log entry with the required information
- ☐ When the audit is complete:
 - ☐ Notify the Forecaster
 - ☐ Notify the LCC for units not in the DAM
- ☐ Complete the outage application with the test end time