| <b>ISO</b> new england | CROP.34013 Do Not Exceed Dis                      | patchable Generation       |
|------------------------|---|----------------------------|
| © 2023                 | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17                | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

## **Table of Contents**

| Section 1 : Respond to a deviation from supply offer parameter                   | 5  |
|--|----|
| Section 2 : DDG returning to service following an out of service period (outage) | 7  |
| Section 3 : ISO Imposed Limits for a DDG   | 8  |
| Section 4: Manual execution and approval of a DLC case                           | 9  |
| Section 5 : Respond to indications of an abnormally low DNE Limit                | 12 |
| Section 6 : Respond to indications of an abnormally high DNE Limit               | 13 |
| Section 7 : DLC Issue  | 14 |

# References

- 1. CROP.27002 Manual Dispatch
- 2. CROP.34006 Clogger Transmission Constraints and EMSOUT
- 3. CROP.35005 Dispatch Using RTUC and UDS

# **Procedure Background**

Generators participating in DNE Dispatch include all modeled wind and solar generators as well as intermittent hydro resources. This set of resources is referred to as DNE Dispatchable Generators (DDGs).

A System Operator shall only accept a Redeclaration from the Designated Entity (DE). Control Room Staff accepting a Redeclaration shall request and verify the Generator or DARDs Asset ID to ensure the Redeclaration is made for the correct Generator or DARD.

A Redeclaration shall stay in effect until the DE submits a subsequent Redeclaration restoring the previous Supply Offer parameter or modifying the Redeclared parameter value.

Real Time High Operating Limit (RTHOL) – it is the maximum output that could be achieved given ideal wind/solar conditions that takes into account any equipment outages associated with the resource.

Wind High Limit/Solar High Limit (WHL/SHL) – current output capability given current wind/solar conditions that takes into account any equipment outages associated with the resource.

#### Summary of Wind/Solar Plant Auto-Redeclaration Process (WIND, SOLA or RPLAN):

- The Auto-Redeclaration process provides current and future hours RTHOL and Eco Max values
- The Auto-Redeclaration process will ensure that the redeclared RTHOL and Eco Max values are never lower than the
  Participant's offered or redeclared Eco Min value. This ensures that the Auto-Redeclaration process does NOT violate
  a Wind/Solar Plant's true physical low limit.

Example: If a Wind/Solar Plant's offered or redeclared Eco Min value is equal to 1 MW and the calculation of RTHOL or Eco Max is 0 MW, the value entered as the RTHOL or Eco Max redeclaration will be set to 1 MW

 The Auto-Redeclaration process will ensure that the redeclared Eco Max values are never higher than the redeclared RTHOL

Example: If the Wind/Solar Plant's redeclared RTHOL is 50 MW and the calculation of Eco Max is 60 MW, the value entered as the Eco Max redeclaration will be set to 50 MW.

| <b>ISO</b> new england | CROP.34013 Do Not Exceed Disp                     | patchable Generation       |
|------------------------|---|----------------------------|
| © 2023                 | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17                | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

#### Current Hour Wind/Solar Plant Auto-Redeclarations:

- Current hour RTHOL is telemetered directly from the Wind/Solar Plant RTU every 4 seconds. A 5-minute rolling average RTHOL is calculated based on the telemetered RTHOL values. The 5-minute rolling average value is used in the determination of the need to implement a redeclaration of RTHOL. A redeclaration of RTHOL will be made any time that the 5-minute rolling average differs from the current RTHOL by more than:
  - The Wind/Solar Unit Auto Redec Update Threshold (%); AND
  - The Auto Redec Mw Threshold (Mw).
- Current Hour Eco Max, and next hour if it is within 15 minutes, is calculated using a five minute rolling average of the Wind High Limit (WHL) or Solar High Limit (SHL), telemetered directly from the RTU every 4 seconds. A redeclaration of Eco Max will be made any time that the calculated value differs from the current Eco Max by more than:
  - The Wind/Solar Unit Auto Redec Update Threshold (%); AND
  - The Auto Redec Mw Threshold (Mw).
- If the WHL/SHL has bad quality or missing, the redeclared Eco Max will use the ISO Persistence Wind/Solar Forecast.
- The Wind/Solar Unit Auto Redec Update Threshold % is set on the ISO Unit Limits Display in EMS.
- Manual Operator Redeclarations take precedence over the Auto-Redeclaration process and remain in place until removed by the Operator.

#### Future Hour Wind/Solar Plant Auto-Redeclarations:

- RTHOL is redeclared hourly (up to 48 hours out) based on Wind Plant Future Availability (WPFA) and Solar Plant Future Availability (SPFA) information which is provided by the Wind/Solar Plant to the ISO via a Web Service.
- Eco Max (for 1 to 3 hours out) is redeclared every 5 minutes based on the Short-Term Forecast
- Eco Max (for 4 to 48 hours out) is redeclared every 3 hours based on the Medium-Term Forecast which is provided by the Wind/Solar Power Forecaster to ISO.
- Manual Operator Redeclarations take precedence over the Auto-Redeclaration process and remain in place until removed by the Operator.

## Summary of intermittent hydro DDG Auto-Redeclaration Process (HYDR):

- Provides Eco Max values for the current hour and next hour when within 15 minutes
- Ensures redeclared Eco Max values are between the RTHOL and Eco Min values
- Prevents violating the offered physical limits

# Current Hour (and the next hour when within 15 minutes of the next hour) intermittent hydro DDG Auto-Redeclarations:

- Actual output is telemetered every 4-seconds from the resource's RTU
- Every 5-minutes, an average of the resource's actual output is calculated based on the 4-second actual output values from the previous 5-minute period
- This average output of the previous 5-minute period is then compared to the offered Eco Max:
  - If the average output of the previous 5-minute period is **greater than** the offered Eco Max, then the Eco Max automatic redeclaration will be equal to the average output of the previous 5-minute period (not to exceed the RTHOL)
  - If the average output of the previous 5-minute period is **less than** the offered Eco Max AND the resource is being dispatched down due to a binding constraint, then the Eco Max automatic redeclaration will be equal to the offered Eco Max
  - If the average output of the previous 5-minute period is **less than** the offered Eco Max AND the resource is NOT being dispatched down due to a binding constraint, then the Eco Max automatic redeclaration will be equal to the average output of the previous 5-minute period (not below the Eco Min)
- An automatic redeclaration will only be triggered if the calculated value differs from the current Eco Max by more than:
  - The Hydro Unit Auto Redec Update Threshold (%); AND
  - The Auto Redec Mw Threshold (Mw).
- There will always be an Eco Max redeclaration for the current hour while this process is running
- Manual Operator Redeclarations take precedence over the Auto-Redeclaration process and remain in place until removed by the Operator.

| Rev.17 | Page: 2 of 15 | Hard Copy is Uncontrolled |
|--------|---------------|---------------------------|

|   | ISO newengland | CROP.34013 Do Not Exceed Disp                     | patchable Generation       |
|---|----------------|---|----------------------------|
| Ī | © 2023         | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Ī | Rev #17        | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

DDGs will receive a Do Not Exceed (DNE) Limit on their RTU. This DNE value is **NOT** to be exceeded, but a DDG can operate freely anywhere between its Eco Min (or Emergency Min when applicable) and its DNE.

DNE Limit Calculator (DLC) runs every five minutes, and after every UDS or CD SPD approval to complete the following:

- Retrieve all the predefined data set from the MDB
- Retrieve all the predefined data from the last RTUDS solution including the selected reference case ID
- Retrieve the RTNET data through the last SE files
- Retrieve the RTUDS-active constraint data
- Solve the robust optimization problem for DDGs' DNE limits
- Pass the solution data to MDB for storage and Operator's review
- Approve the case and archive the case data

Electronic Dispatch executes periodically every five minutes to issue the latest DDPs including the DDG's DNE limits. Although Electronic Dispatch executes every five minutes, it also checks periodically, every twenty seconds, for whether a new RTUDS/STUDS/CD SPD case has been approved with new DDPs including the DDG's' DNE limits have become available since the last five minute issuance. If DDPs, including DNE limits, are updated, the new DDPs will be issued; otherwise DDPs will **NOT** be reissued until the next five minute cycle.

On-line DDGs are typically in a UCM 4. While in a UCM 4, DLC will derive a DNE Limit between a DDG's Eco Min and the lower of either the RTHOL, or ISO Imposed Eco Max subject to economics and reliability constraints. DDG's should remain in UCM 4 regardless of fuel supply unless there are equipment problems or failures. If the DDG is not operating due to fuel supply the DE should redeclare the Eco Min to zero to allow the unit to operate from zero to the DNE.

On-line DDGs that have informed the ISO Control Room that they are unable to follow a DNE limit or need to be manually dispatched should be placed in a UCM 3.

| <b>ISO</b> new england | CROP.34013 Do Not Exceed Disp                     | patchable Generation       |
|------------------------|---|----------------------------|
| © 2023                 | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17                | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

## **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 communications.
- 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.

| ISO newengland | CROP.34013 Do Not Exceed Disp                     | patchable Generation       |
|----------------|---|----------------------------|
| © 2023         | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17        | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

## **Procedure**

#### **Condition(s) to perform this section:**

- Indication that a DDG is NOT operating within its Supply Offer parameters, for a sustained period of time; And
- Is NOT being actively constrained in a binding UDS case.

## Section 1: Respond to a deviation from supply offer parameter

#### Notes

- For a DDG that is **NOT** being actively constrained in UDS there should typically be very little difference between the Actual Gen and the Eco Max.
- Intermittent hydro DDG Eco Max values are adjusted by an automatic redeclaration process. This process is detailed in the Procedure Background section of this CROP.
- Wind/Solar DDG Eco Max values should be adjusted via the automatic redeclaration process. Based on this automatic process there is a chance to have a deviation (non-sustained) while the output is adjusted. This process is detailed in the Procedure Background section of this CROP.

Step 1.1 Primary Responsibility: Any Control Room Operator

Contact the DE to compare supply offer parameters and observed performance to determine the reason for the sustained deviation.

Step 1.1.1 Primary Responsibility: Any Control Room Operator

## **Condition(s) to perform this step:**

• Wind/Solar DDG DE identified the WHL/SHL telemetered value is NOT accurate.

Perform a manual replacement of the WHL/SHL to correct the inaccurate information using CROP.27002 Telemetry and Topology Problems.

#### Notes

If the WHL/SHL has bad quality or missing, the redeclared Eco Max will use the ISO Persistence Wind/Solar Forecast.

Step 1.1.2 Primary Responsibility: Any Control Room Operator

#### Condition(s) to perform this step:

- The ISO Persistence Wind/Solar forecast value is NOT accurate: Or
- The future hour EcoMax forecast value is NOT accurate.

#### Enter a redeclaration of the Eco Max and a reason code.

## **Notes**

- Entering a redeclaration for a DDG Eco Max will stop the Auto-Redeclaration process for the Eco Max for the duration a manual redeclaration is entered for.
- The reason code must be something other than WIND, SOLA or RPLAN. This will prevent the autoredeclaration process from updating the value while attempting to enter a redeclaration

| ISO new england | CROP.34013 Do Not Exceed Disp                     | patchable Generation       |
|-----------------|---|----------------------------|
| © 2023          | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17         | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

Step 1.1.3 Primary Responsibility: Any Control Room Operator

#### **Condition(s) to perform this step:**

- Wind DDG DE identified the WHL telemetered value is NOT accurate; Or
- Solar DDG DE identified the SHL telemetered value is NOT accurate: Or
- Wind/Solar DDG DE identified the forecast value is NOT accurate.

## Log the issue.

#### **Instructions**

- ☐ Use log entry: > GENERATION > DDG > Incorrect Input Value
- ☐ Identify if the issue was with the WHL, SHL, Forecast, or both.

# Step 1.2 Primary Responsibility: Any Control Room Operator

## Condition(s) to perform this step:

• The DE does NOT agree that there is an issue.

## Notify the Senior System Operator and Operations Shift Supervisor.

Step 1.2.1Primary Responsibility:Senior System Operator

## Determine if a unilateral redeclaration is required.

#### Notes

Unilateral redeclarations are performed to maintain reliability.

Step 1.2.2 Primary Responsibility: Senior System Operator

# Notify the Generation Operator if a unilateral redeclaration is or is NOT required.

#### **Instructions**

Perform the redeclaration in accordance with the applicable section of this procedure.

# Step 1.2.3 Primary Responsibility: Any Control Room Operator

#### Condition(s) to perform this step:

• The Senior System Operator has determined a unilateral redeclaration is required.

#### Perform a redeclaration as instructed.

Step 1.2.3.1 Primary Responsibility: Any Control Room Operator

Notify the DE of the unilateral redeclaration

Step 1.2.3.2 Primary Responsibility: Any Control Room Operator

Log the unilateral redeclaration.

#### Instructions

Use log entry: > GENERATION > Redeclarations

| <b>ISO</b> new england | CROP.34013 Do Not Exceed Disp                     | patchable Generation       |
|------------------------|---|----------------------------|
| © 2023                 | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17                | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

• DE for a DDG informs the Control Room Operator a DDG is returning to service from an outage.

## Section 2 : DDG returning to service following an out-of-service period (outage)

#### Notes

A DNE will **NOT** be derived for a DDG that is in a UCM 1 or 2.

Step 2.1 Primary Responsibility: Any Control Room Operator

Ensure the limits are updated.

## **Instructions**

The DE of a wind/solar DDG would need to either:

- ☐ Update the RTHOL and WHL/SHL limits via their RTU; Or
- ☐ Provide RTHOL and Eco Max limits to the Control Room Operator so a Redeclaration can be manually entered The DE of an intermittent hydro DDG will need to:
  - ☐ Provide updated limits to the Control Room Operator so a Redeclaration can be manually entered.

#### **Notes**

Limits are required to be populated prior to moving forward to the next Step.

Step 2.2 Primary Responsibility: Any Control Room Operator

Place the DDG in UCM 4.

Step 2.3 Primary Responsibility: Security Operator

Run a Network Sequence.

Step 2.4 Primary Responsibility: Any Control Room Operator

## **Condition(s) to perform this step:**

- DDG is returning from an unplanned outage; Or
- DDG is returning early from a planned outage.

Request the Forecaster to restore the DDG in the COP.

Step 2.5 Primary Responsibility: Any Control Room Operator

State the provided instruction to the DE of the DDG.

#### **Instructions**

Instruction to provide to the DE of the DDG:

"A new dispatch case will be executed and the DNE value should update shortly (typically within 5 minutes). Once your DNE updates to a non-zero value, follow your DNE. If you do **NOT** see an updated DNE value after 5 minutes, please call back and inform the Control Room."

Step 2.6 Primary Responsibility: Loader Operator

Execute and approve a new UDS case in accordance with CROP.35005 Dispatch using RTUC and UDS.

#### **Notes**

A new UDS case is required to be executed and approved to get DLC to calculate a DNE value.

|        |               | 17                        |
|--------|---------------|---------------------------|
| Rev.17 | Page: 7 of 15 | Hard Copy is Uncontrolled |

| <b>ISO</b> new england | CROP.34013 Do Not Exceed Dis                      | patchable Generation       |
|------------------------|---|----------------------------|
| © 2023                 | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17                | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

- ISO Imposed limit is required for system condition; Or
- An ISO Imposed limit needs to be removed.

## **Section 3: ISO Imposed Limits for a DDG**

Step 3.1 Primary Responsibility: Any Control Room Operator Access the Unit Limits display for the applicable DDG.

Step 3.2 Primary Responsibility: Any Control Room Operator

## **Condition(s) to perform this step:**

• A value is to be entered.

Enter the value in the ISO Imposed Eco Max column.

Step 3.2.1 Primary Responsibility: Any Control Room Operator Select the reason code.

Step 3.3 Primary Responsibility: Any Control Room Operator

## **Condition(s) to perform this step:**

• A value is to be removed.

Remove the redeclaration value to return to bid.

Step 3.4 Primary Responsibility: Any Control Room Operator

Log the redeclaration and provide a reason.

#### Instructions

Use log entry: > GENERATION > Redeclarations

| <b>ISO</b> new england | CROP.34013 Do Not Exceed Disp                     | patchable Generation       |
|------------------------|---|----------------------------|
| © 2023                 | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17                | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

- DLC case parameters need to be modified prior to next execution; Or
- Manual execution and approval of a DLC case is required; Or
- There are indications of a failed DLC case.

# Section 4: Manual execution and approval of a DLC case

## **Notes**

- DLC is set to auto-execute every 5 minutes or immediately following UDS or CDSPD approval.
- A manual execution of DLC suspends the automatic execution and approval process, therefore a manual approval of a DLC case is required to re-initiate the automatic process.
- UDS may still be used while correcting for a failed DLC case; however, abnormally high or low DNE limits may be generated.

## Step 4.1 Primary Responsibility: Loader Operator

## Determine if a modification to a DLC case parameter is required.

## **Instructions**

There are two possible modifications for a DLC case:

- Feasibility Check Limit is used to determine the maximum % of security limit violation that will be allowed in subsequent DLC cases. Violation of the feasibility check limit results in the DLC setting the DNE limits to be equal to the minimum of: UDS DDP, ISO-Imposed Eco Max, or RTHOL. Violation of the feasibility check limit is identified by the DLC Case State of approved highlighted in ORANGE, additionally on the UDS display the DLC Control button will be ORANGE. The feasibility check limit will normally be set to 70%.
- CCU (Corrective Control Unit) MW Limit determines how much excess generation (MWs in excess of DDG DDPs) is allowed to be solved for in the DLC case. CCU MW Limit will normally be set to 9999.

# Step 4.1.1 Primary Responsibility: Loader Operator

## **Condition(s) to perform this step:**

• It was determined the Feasibility Check Limit needed to be modified.

## Modify the Feasibility Check Limit and save the change.

Step 4.1.2 Primary Responsibility: Loader Operator

#### Condition(s) to perform this step:

• It was determined the CCU MW Limit needed to be modified.

## Modify the CCU MW Limit and save the change.

Step 4.1.3 Primary Responsibility: Loader Operator

#### Condition(s) to perform this step:

• A modification to Feasibility Check Limit or CCU MW Limit was made.

# Log the modification

#### Instructions

Use log entry: > GENERATION > DDG > DLC Parameter Modification

| <b>ISO</b> new england | CROP.34013 Do Not Exceed Dispatchable Generation  |                            |
|------------------------|---|----------------------------|
| © 2023                 | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17                | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

Step 4.2 Primary Responsibility: Loader Operator

#### **Condition(s) to perform this step:**

- DLC Auto Execute and Auto Approve flags are checked; And
- It has been greater than 5 minutes since last UDS case approval and DLC did not automatically run; Or
- System conditions have changed significantly since the last UDS case approval; Or
- There are indications of a failed DLC case; Or
- DLC failed to run automatically.

## Execute and approve a new UDS case.

Step 4.2.1 Primary Responsibility: Loader Operator

## Condition(s) to perform this step:

• There are indications of a failed DLC case after a UDS approval.

Execute and approve two more UDS cases in an attempt to get DLC to run automatically.

Step 4.2.1.1 Primary Responsibility: Loader Operator

## **Condition(s) to perform this step:**

• There are indications of a failed DLC case after subsequent UDS approvals.

Proceed to Step 4.3 to manually execute and approve a DLC case.

Step 4.3 Primary Responsibility: Loader Operator

#### Condition(s) to perform this step:

- Manual execution of DLC is required based on system conditions; Or
- DLC did not automatically run after UDS case approval(s); Or
- There are indications of a failed DLC case.

# Manually execute a DLC case.

## Notes

This action will suspend automatic execution and approval process.

Step 4.3.1 Primary Responsibility: Loader Operator

## Review the DLC case.

## **Instructions**

Determine the status of the case:

- ☐ If a red Failed Case state is indicated, go to Section 7 and perform Step 7.2
- ☐ If non-optimized as indicated by orange Solved Case state or orange highlighting of DLC control button, return to <a href="Step 4.1">Step 4.1</a> and make modifications.

#### Review the following:

- DDG dispatch in selected DLC case (note: DNEs for all DDGs can be observed on the Gen Schedule Tab, accessed by right-clicking on the DLC case and selecting solution data > gen schedule)
- ☐ Binding constraints and resulting DDG dispatch
- □ DDG units above DNE limit

| <b>ISO</b> new england | CROP.34013 Do Not Exceed Dispatchable Generation  |                            |
|------------------------|---|----------------------------|
| © 2023                 | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17                | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

Step 4.3.2 Primary Responsibility: Loader Operator

Approve the DLC case.

## **Notes**

Approval of a manually executed DLC case will reinitialize the automatic execution and approval process.

Return to Section 5

Return to Section 6

Return to Section 7

| <b>ISO</b> new england | CROP.34013 Do Not Exceed Dispatchable Generation  |                            |
|------------------------|---|----------------------------|
| © 2023                 | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17                | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

• DNE limit for a DDG appears to be abnormally low and operation at a higher value can be permitted without a reliability issue.

## Section 5: Respond to indications of an abnormally low DNE Limit

Step 5.1 Primary Responsibility: Loader Operator

Notify the Operations Shift Supervisor and Senior System Operator.

Step 5.2 Primary Responsibility: Loader Operator

Determine if a malfunction or error caused the abnormally low DNE Limit.

#### **Instructions**

Check the following:

- □ DLC for unanticipated binding constraints. If an ILC constraint is determined to be unnecessarily binding, verify the applicable ILC limit.
- ☐ The applicable DDGs limits (RTHOL, Eco Max, and ISO-Imposed Eco Max) for indications of unexpected values
- DDG's energy supply offer (price/MW pairs) versus LMPs. The DDG's offer price may result in a DNE lower than what can reliably achieved.

If abnormal or unexpected limits or constraints can be remedied, perform the required actions and then manually execute and approve a DLC case using Section 4.

Step 5.3 Primary Responsibility: Loader Operator

#### **Condition(s) to perform this step:**

• The cause of the malfunction or error could NOT be determined or corrected.

Notify the IT On Call Technician of the issue.

Step 5.4 Primary Responsibility: Loader Operator

Enter an ISO-Imposed Eco Min.

Step 5.5 Primary Responsibility: Loader Operator

Manually execute UDS or DLC to create new set of DNE limits that should observe ISO-Imposed limit

#### **Instructions**

If a new DLC case will be created use Section 4 of this procedure.

Step 5.6 Primary Responsibility: Loader Operator

## **Ensure ISO-Imposed Eco Min is reflected in new DNE Limit.**

## **Notes**

Ensure resource output and offer data are periodically reviewed to ensure resources with ISO-Imposed Eco Min values are economically in rate or they are not operating at a value less than their ISO-Imposed Eco Min. Update the ISO-Imposed Eco Min values as necessary.

Step 5.7 Primary Responsibility: Loader Operator

Log the issue.

#### **Instructions**

Use log entry: > GENERATION > DDG > Abnormally Low DNE Limit

| ISO newengland | CROP.34013 Do Not Exceed Dispatchable Generation  |                            |
|----------------|---|----------------------------|
| © 2023         | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17        | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

• DNE limit for a DDG appears to be abnormally high and operation at DNE creates a possible reliability issue

## Section 6: Respond to indications of an abnormally high DNE Limit

Step 6.1 Primary Responsibility: Loader Operator

Determine if a constraint in CLOGGER needs to be activated due to a real time issue.

#### Notes

- If time permits, activate the constraint in CLOGGER using CROP.34006 Clogger Transmissin Constraints and EMSOUT.
- If time does **NOT** permit, continue performing actions in this section.

Step 6.2 Primary Responsibility: Loader Operator

Notify the Operations Shift Supervisor and Senior System Operator.

Step 6.3 Primary Responsibility: Loader Operator

Notify the IT On Call Technician of the issue.

Step 6.4 Primary Responsibility: Loader Operator

Enter an ISO-Imposed Eco Max.

Step 6.5 Primary Responsibility: Loader Operator

Manually execute UDS or DLC to create new set of DNE limits that should observe ISO-Imposed limit

## **Instructions**

If a new DLC case will be created use Section 4 of this procedure.

Step 6.6 Primary Responsibility: Loader Operator

**Ensure ISO-Imposed Eco Max is reflected in new DNE Limit.** 

Step 6.7 Primary Responsibility: Loader Operator

Log the issue.

## **Instructions**

Use log entry: > GENERATION > DDG > Abnormally High DNE Limit

| ISO new england | CROP.34013 Do Not Exceed Dispatchable Generation  |                            |
|-----------------|---|----------------------------|
| © 2023          | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17         | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

- Red Failed Case State on DLC display; Or
- Red highlighting of the DLC Control button on the UDS display

#### **Section 7 : DLC Issue**

#### Notes

- If DLC fails or stops running, the last approved DNE values would continue to be sent out via ED until the point at which those last approved DNE values are "stale" (set to 20 minutes after approval).
- If the last approved DNE values are determined to be stale, the default DNE values would be sent out via ED.
- Default DNE limits are set to be equal to the minimum of: UDS DDP, current ISO-Imposed Eco Max, or current RTHOL.

Step 7.1 Primary Responsibility: Loader Operator

Perform actions in <u>Section 4</u> to execute and approve a new DLC case.

Step 7.2 Primary Responsibility: Loader Operator

#### Condition(s) to perform this step:

- DLC is still in a failed state after at least three UDS case approvals; Or
- DLC is still in a failed state after manual execution.

## Notify IT On Call Technician of the DLC issue.

Step 7.2.1 Primary Responsibility: Loader Operator

Log the DLC issue and the actions taken.

#### **Instructions**

Use log entry: > EQUIPMENT FAILURE > DLC failure/malfunction

Sten 7.2.2 Primary Responsibility: Loader Operator

Perform manual dispatch of DDGs using CROP.25007 Manual Dispatch.

| <b>ISO</b> new england | CROP.34013 Do Not Exceed Dispatchable Generation  |                            |
|------------------------|---|----------------------------|
| © 2023                 | Approved By: Director, Operations                 | Effective Date: 12/05/2023 |
| Rev #17                | Procedure Owner: Manager, Control Room Operations | Valid Through: 12/05/2025  |

# **Revision History**

| Rev. No. | Date       | Reason   | Contact           |
|----------|------------|--|-------------------|
|          | (MM/DD/YY) |  |                   |
|          | 10/23/18   | For previous revision history, refer to Rev 7 available through Ask ISO  | Steven Gould      |
| 8        | 12/19/18   | Deleted section 5 and 9  | Steven Gould      |
| 9        | 06/20/19   | Added background information about intermittent hydro DDG automatic redeclaration  | Steven Gould      |
| 10       | 04/16/20   | Added steps 3.3.2 and 3.3.3  | Steven Gould      |
| 11       | 06/23/20   | Moved Step in Section 3 and added Condition to Enter for Clarification   | Steven Gould      |
| 12       | 11/17/20   | Added info in background section about leaving DDGs in UCM 4 unless equipment problems for failures.   | Steven Gould      |
| 13       | 03/01/21   | Update to procedure background   | Steven Gould      |
| 14       | 05/24/21   | Updated references, Removed Standard of Completion provided in Common Procedure Instructions, Added clarifying information in Step 1.1.1, Modified Step 3.4, Modified Section 5, added condition to enter in Step 8.2. | Steven Gould      |
| 15       | 07/20/21   | Updated Procedure Background for new auto redec parameter, Updated Common Procedure Information, Corrected notes in step 1.1 to line up with referenced step numbers; Reformat of TOC.                                 | Steven Gould      |
| 16       | 03/02/23   | Updated References, Deleted Section 3 and incorporated any applicable items in CROP.25007 Manual Dispatch; Modified Steps 7.2.1 and 7.2.2 and re-ordered them  | Jonathan Gravelin |
| 17       | 12/05/23   | Updates to include Solar DDGs  | Jonathan Gravelin |
|          |            |  |                   |