## **RENEW AMENDMENT #3 TO ORDER 2023 PROPOSAL**

ALLOW RESOURCES WITH A COMPLETED SIS TO QUALIFY FOR CAPACITY MARKET ACTIVITIES THROUGH FCA 19 IN 2024

NEPOOL Transmission Committee | January 23, 2024









































































































## INTRODUCTION

RENEW developed six conceptual amendments to ISO's Order 2023 compliance proposal, presented at the January 4, 2024 TC meeting.

- 1. Allow customers to revert from a CNR interconnection request to an NR interconnection request after seeing the results of the cluster study
- 2. Allocate study costs separately for NRIS and CNRIS portions of the cluster study
- 3. Perform a serial CNR-Only study as part of the serial transition study process
- 4. Clarify that a list of both NR and CNR contingent facilities will be included in the cluster study and restudy reports
- 5. Create a Customer Engagement Window Within the Transitional Cluster Study Process Without Extending the Transition Timeline
- 6. Add an exemption to withdrawal penalties in the situation where an Interconnection Customer received incorrect or misleading information in the scoping meeting

RENEW has continued to develop and intends to offer the first three amendments for a TC vote.





## INTRODUCTION

- Due to time constraints, RENEW is providing materials for its three amendments separately
  - This presentation focuses on **RENEW Amendment 3**, previously called: Perform a serial CNR-Only study as part of the serial transition study process
- Based on feedback received by ISO, this amendment has been revised and renamed:
   Allow resources with a completed SIS to qualify for capacity market activities through FCA
   19 in 2024
  - The intent and general concept of the amendment have not changed, but the way in which it would be implemented has changed in an attempt to better fit with existing ISO processes
  - This proposal builds on the concepts presented by New Leaf at TC meetings in 2023
- Redlines to the following Tariff sections have been provided to support this amendment
  - Schedule 22 (Schedule 23 will need to be similarly modified)
  - Section II.48
  - Section III.13.A (these may need to be presented at the MC)





## AMENDMENT MODIFIED TO UTILIZE THE INTERIM QUALIFICATION PROCESS

- Rather than creating a serial transitional CNR Only study as described previously, the amendment now expands upon the interim FCM qualification process (created as part of the FCA 19 delay filing) that will be performed in 2024 using to the old FCA 19 schedule
  - Allow new resources with a COD prior to June 1, 2018 to qualify in 2024 for reconfiguration auctions, bilaterals, and FCA 19
  - Only projects with a completed SIS are eligible
    - This is implemented by restricting the process to projects with an Interconnection Agreement (IA), in IA negotiations, or that have elected to proceed directly to IA negotiations by Aug 1, 2024 (this date makes the Tariff language agnostic as to whether the New Leaf Amendment 1 on advancing late-state SIS's is adopted)
  - Resources would be qualified only up to the amount of capacity that does not require any additional network upgrades, as determined by the existing overlapping impact study process





## **TIMELINE CONSIDERATIONS**

- The Order 2023 Tariff revisions effective date of May 31, 2024 prevents us from requiring a Show of Interest (SOI) be submitted prior to that date for resources that are not eligible for the existing interim reconfiguration auction qualification process
  - The SOI and qualification package would both be required in June (instead of submitting the SOI in April)
  - ISO would post the schedule for these submittals within 10 Business Days of their Order 2023 filing (planned for April 1)
- The project must elect critical path schedule (CPS) monitoring by Nov 1 (same as required in the current interim qual process)
  - The CPS updates must continue to show a COD by June 1, 2028
  - There would be no ability to cover for up to two years after the start of CCP 19, as this process is intended only for late-stage projects that are highly confident in their ability to reach COD on schedule



### INTERACTION WITH THE CLUSTER STUDIES

- Because no network upgrades would result from these FCM qualifications, this process would not impact the NRIS base case for the transitional cluster study that needs to be established by 9/1/24
  - There would be no delay to the transitional cluster study timing
  - Resources expecting they may need upgrades to qualify should pursue the transitional cluster study or a subsequent cluster study
- Projects qualified in this interim process would
  - Post non-commercial capacity financial assurance that is at-risk until the resource reaches COD
  - Have their CNRIS locked in upon obtaining a CSO
  - Have their qualified capacity respected in the CNRIS study case for the transitional cluster study (which would not be established until early 2025) and subsequent cluster studies





## **INTERACTION WITH INTERIM RA QUAL PROCESS**

- The Interim RA Qual process that is now in the Tariff would remain unchanged
  - Early COD resources would continue to be able to use this process to qualify for reconfigs and bilaterals but not to lock in CNRIS
- This new, slightly different interim qual process with additional requirements and opportunities would be added alongside the existing interim process
  - Early COD resources (that do not require upgrades for capacity deliverability) would be able to qualify for reconfigs and bilaterals and would lock in CNRIS upon obtaining a CSO
  - The two interim qual processes would run together, with the exception that only the early-COD resources would be able to submit their SOI in April





## **ALIGNS WITH 02023 INTENT**

 The intent of the transition in Order 2023 appears to be to allow late stage projects that are ready to go to get through the process of achieving their fully requested interconnection service quickly rather than getting slowed down by a cluster study

P856: "... [the] proposed transition process will create an efficient way to prioritize and process interconnection requests, based on how far they have advanced through the interconnection process and their level of commercial readiness. We further find that the transition process, as adopted herein, appropriately balances the need to move expeditiously to the new cluster study process with the need to respect the investments and expectations of interconnection customers at an advanced stage in the existing interconnection process.

 ISO-NE is unique in its evaluation of capacity deliverability through the FCM qualification process, and Order 2023 does not address how the transition process should work for the ISO-NE capacity process

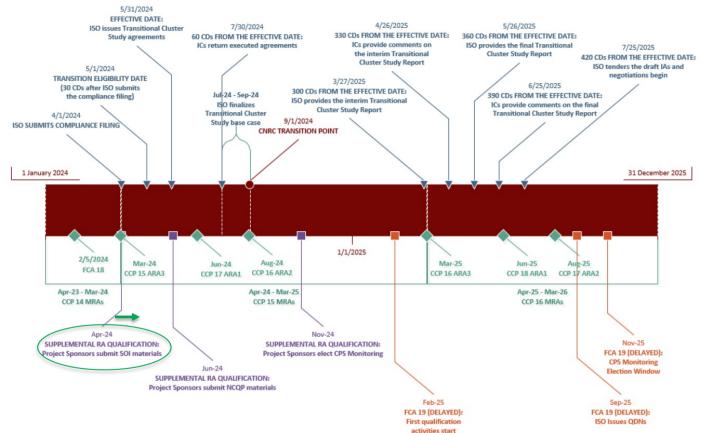
P180: "In response to National Grid, we decline to clarify whether the proposed cluster study process encompasses energy or capacity interconnection service requests. 'Energy interconnection requests' and 'capacity interconnection requests' are not defined terms in the pro forma LGIP, and we decline to define them here. We do not believe that such detail is needed for transmission providers to implement the reforms adopted herein."

• This amendment would be a way to meet the Order's intent of an efficient transition process for achieving the capacity portion of late-stage interconnection requests



### **TIMELINE**

- Process timeline looks nearly identical to the interim (aka supplemental) RA qual process presented by ISO 11/9/23 (shown at right)
- Interim Qual SOI
   Submittal moved to
   June



#### Legend

- Δ Transitional Cluster Study Events
- □ Supplemental RA Qualification Events
- □ Delayed FCA 19 Events
- FCM Auction Events
- O CNRC Transition Point





## RENEW Order 2023 Amendment #3 Tariff Redlines to Section III (only marked up sections shown)

#### III.13. Forward Capacity Market.

The ISO shall administer a forward market for capacity ("Forward Capacity Market") in accordance with the provisions of this Section III.13. For each one-year period from June 1 through May 31, starting with the period June 1, 2010 to May 31, 2011, for which Capacity Supply Obligations are assumed and payments are made in the Forward Capacity Market ("Capacity Commitment Period"), the ISO shall conduct a Forward Capacity Auction in accordance with the provisions of Section III.13.2 to procure the amount of capacity needed in the New England Control Area and in each modeled Capacity Zone during the Capacity Commitment Period, as determined in accordance with the provisions of Section III.12. To be eligible to assume a Capacity Supply Obligation for a Capacity Commitment Period through the Forward Capacity Auction, a resource must be accepted in the Forward Capacity Auction qualification process in accordance with the provisions of Section III.13.1.

#### III.13.A Forward Capacity Market Interim Provisions.

#### III.13.A.1 Interim Forward Capacity Auction Schedules.

Notwithstanding any other any dates, date ranges and/or deadlines for activities related to the Forward Capacity Auction established in or pursuant to any provision of the ISO New England Operating Documents, for the nineteenth, twentieth, twenty-first, twenty-second, twenty-third, twenty-fourth and twenty-fifth Forward Capacity Auctions (associated with the 2028-2029, 2029-2030, 2030-2031, 2031-2032, 2032-2033, 2033-2034, and 2034-2035 Capacity Commitment Periods, respectively), the following provisions apply.

For the nineteenth Forward Capacity Auction (associated with the 2028-2029 Capacity Commitment Period), the dates, date ranges and/or deadlines for activities related to the Forward Capacity Auction established in or pursuant to any provision of the ISO New England Operating Documents shall not apply and shall be delayed by one calendar year.

For the nineteenth, twentieth, twenty-first, twenty-second, twenty-third and twenty-fourth Forward Capacity Auctions (associated with the 2028-2029, 2029-2030, 2030-2031, 2031-2032, 2032-2033 and 2033-2034 Capacity Commitment Periods, respectively), the first annual reconfiguration auction as

specified in Section III.13.4 that is typically held in the month of June, approximately 24 months before the start of the applicable Capacity Commitment Period, shall not be conducted.

For the twentieth, twenty-first, twenty-second, twenty-third, twenty-fourth and twenty-fifth Forward Capacity Auctions (associated with the 2029-2030, 2030-2031, 2031-2032, 2032-2033, 2033-2034, and 2034-2035 Capacity Commitment Periods, respectively), the Forward Capacity Auction, and the qualification process for each such auction, shall be conducted under a 10-month timeline in accordance with the key dates set forth in the schedule below. For each Forward Capacity Auction specified in the table below, the ISO shall publish the dates, date ranges and deadlines for activities related to the respective Forward Capacity Auction no later than six months before the applicable notification to Lead Market Participants of their Existing Capacity Resource's summer Qualified Capacity and winter Qualified Capacity values as specified in Section III.13.1.2.3(a).

Capacity Commitment Period	Forward Capacity Auction Date	Revised annual reconfiguration auction Dates (as applicable)	
2029-2030	December 2026	Second annual reconfiguration auction August 2028; third annual reconfiguration auction March 2029	
2030-2031	October 2027	Second annual reconfiguration auction August 2029; third annual reconfiguration auction March 2030	
2031-2032	August 2028	Second annual reconfiguration auction August 2030; third annual reconfiguration auction March 2031	
2032-2033	June 2029	Second annual reconfiguration auction August 2031; third annual reconfiguration auction March 2032	
2033-2034	April 2030	Second annual reconfiguration auction August 2032; third annual reconfiguration auction March 2033	
2034-2035	February 2031	Regular annual reconfiguration auction schedule applies.	

The ISO may adjust any published date, date range and/or deadline for Forward Capacity Auction activities by 10 Business Days if needed, and shall publish a revised date, date range and/or deadline no later than 30 days in advance of such adjustment.

#### III.13.A.2. Interim Reconfiguration Auction Qualification Process.

#### III.13.A.2.1 Interim Reconfiguration Auction Qualification.

Notwithstanding any other provision of the ISO New England Operating Documents, a New Capacity Resource that has not already acquired a Capacity Supply Obligation and intends to achieve Commercial Operation as defined in Section III.13.1.1.2.2.2(h) before June 1, 2026, may qualify for the annual reconfiguration auction, monthly reconfiguration auction and bilateral activities described in Section III.13.4 and Section III.13.5 under this section providing the following conditions are met:

- (1) The Project Sponsor submits qualification materials as described in Section III.13.1, including a New Capacity Show of Interest Form in April 2024 and a New Capacity Qualification Package in June 2024. The ISO shall post a list of the required materials on its website and a complete schedule for their submittal at least 60 days in advance; and
- (2) The Project Sponsor requests that the ISO monitor the New Capacity Resource's compliance with its critical path schedule as described in Section III.13.3.1.1 by November 1, 2024.

#### III.13.A.2.2 Interim Qualification for Subsequent Commitment Periods

Notwithstanding any other provision of the ISO New England Operating Documents, a New Capacity Resource that has not already acquired a Capacity Supply Obligation and intends to achieve Commercial Operation as defined in Section III.13.1.1.2.2.2(h) before June 1, 2028, may qualify for the annual reconfiguration auction, monthly reconfiguration auction and bilateral activities described in Section III.13.4 and Section III.13.5 as well as the nineteenth Forward Capacity Auction associated with the 2028-2029 Capacity Commitment Period under this section providing the following conditions are met:

- (1) The Project Sponsor submits qualification materials as described in Section III.13.1, including a New Capacity Show of Interest Form and a New Capacity Qualification Package in June 2024. The ISO shall post a list of the required materials on its website and a complete schedule for their submittal within ten (10) Business Days following ISO-NE's initial Order 2023 tariff revision filing date; and
- (2) By August 1, 2024, the Project Sponsor must also, a) have an Interconnection Agreement under Schedules 22 or 23 of Section II of the Transmission, Markets and Services Tariff or an interconnection agreement under applicable state tariff, rules or procedures, b) be in ongoing negotiations of its Interconnection Agreement under Schedules 22, 23 or 25 of Section II of the Transmission, Markets and Services Tariff, or c) have elected expedited interconnection under Schedules 22, 23 or 25 of Section II of the Transmission, Markets and Services Tariff; and

- (3) The CNR Group Study determines that the New Capacity Resource is able to provide up to the entire amount of capacity indicated in the New Capacity Qualification Package without the need for additional upgrades, where the New Generating Capacity Resource's Qualified Capacity values will be adjusted accordingly should this amount be less than the entire amount indicated in the New Capacity Qualification Package; and
- (4) The Project Sponsor requests that the ISO monitor the New Capacity Resource's compliance with its critical path schedule as described in Section III.13.3.1.1 by November 1, 2024; and
- (5) Notwithstanding the provisions of Section III.13.3.3, such critical path schedule reports continue to indicate that the resource will have achieved all its critical path schedule milestones prior to June 1, 2028 (if as a result of milestone date revisions, the date by which a resource will have achieved all its critical path schedule milestones is after June 1, 2028, then the ISO, after consultation with the Project Sponsor, shall have the right, through a filing with the Commission, to terminate the resource's Capacity Supply Obligation for any future Capacity Commitment Periods and the resource's right to any payments associated with that Capacity Supply Obligation in the Capacity Commitment Period, and to adjust the resource's qualified capacity for participation in the Forward Capacity Market.).

#### III.13.A.3. Interim Provisions Regarding Demand Capacity Resources.

Notwithstanding any other provision of the ISO New England Operating Documents, for the nineteenth Forward Capacity Auction (associated with the 2028-2029 Capacity Commitment Period), a New Demand Capacity Resource is an Active Demand Capacity Resource that has not cleared in a previous Forward Capacity Auction, or an On-Peak Demand Resource consisting of measures that have not been in service prior to June 1, 2024, or a Seasonal Peak Demand Resource consisting of measures that have not been in service prior to June 1, 2024.

# RENEW Order 2023 Amendment #3 Tariff Redlines to Schedule 22 (only marked up sections shown)

#### **5.1.1.2** Transitional Cluster Study

If an Interconnection Study Agreement has been executed prior to March 19, 2020 and is actively under study, such Interconnection Study shall be completed in accordance with the terms of such agreement. If an Interconnection Study Agreement has been executed prior to March 19, 2020, but the Interconnection Study has not commenced, such Interconnection Study shall be completed, and any subsequent Interconnection Studies shall be processed, in accordance with the version of the LGIP in effect on March 19, 2020. Interconnection Studies for Interconnection Requests seeking to interconnect into the Northern and Western Maine parts of the New England Control Area that do not have a completed Interconnection System Impact Study by November 1, 2017 shall be included in the Maine Resource Integration Study, which shall be the first CRPS. The Interconnection Customers identified in the Maine Resource Integration Study as eligible to participate in the associated Cluster System Impact Study shall make one of the elections and complete the associated requirements specified in Section 4.2.3.2 of this LGIP within thirty (30) Calendar Days from the later of November 1, 2017 or the issuance of the final Maine Resource Integration Study report. If the Interconnection Customer does not make one of the elections and complete the associated requirements by the thirtieth Calendar Day, the System Operator shall automatically withdraw the Interconnection Request from the interconnection queue without further opportunity to cure. An Interconnection Customer with an assigned Queue Position as of thirty (30) Calendar Days after April 1, 2024 [insert filing date] (the filing date of this LGIP) may opt to proceed with a Transitional Cluster Study. System Operator shall tender each eligible Interconnection Customer a Transitional Cluster Study Agreement, in the form of Appendix 7 to this LGIP, no later than the Commission-approved effective date of this LGIP. System Operator shall proceed with the Transitional Cluster Study that includes each Interconnection Customer that: (1) meets each of the following requirements listed as (1) - (43) in this section; and (2) executes the Transitional Cluster Study Agreement within sixty (60) Calendar Days of the Commission-approved effective date of this LGIP. All Interconnection Requests that enter the Transitional Cluster Study shall be considered to have an equal Queue Position that is lower than Interconnection Customer(s) proceeding with Transitional Serial Interconnection Facilities Study. If an eligible Interconnection Customer does not meet these requirements, its Interconnection Request shall be deemed withdrawn without penalty and with no further opportunity to cure. System Operator must commence the Transitional Cluster Study at the conclusion of this sixty (60) Calendar Day period. All identified Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrade costs shall be allocated according to Section 4.2.1 of this

LGIP. Transitional Cluster Study costs shall be allocated according to the method described in Section 13.3 of this LGIP.

Notwithstanding any other provision, an Interconnection Customer with a valid Queue Position prior to April 31, 2024 that includes a Commercial Operation Date earlier than March 31, 2028, may make a one-time extension to its requested Commercial Operation Date upon entry into the Transitional Cluster Study, where any such extension shall not result in a Commercial Operation Date later than December March 31, 2028-31, 2027.

All of the following must be included when an Interconnection Customer returns the Transitional Cluster Study Agreement:

- (1) A selection of either Network Energy-Resource Interconnection Service or Capacity Network Resource Interconnection Service.
- (2) A deposit of five million dollars (\$5,000,000) for Interconnection Requests seeking NRIS or CNRIS, and one million (\$1,000,000) for Interconnection Requests for whichthat completed Interconnection Studies for NR Interconnection Service have been completed but have not achieved CNRIS or for Interconnection Requests and are seeking to change from existing NR Interconnection Service to CNR Interconnection Service, in the form of an irrevocable letter of credit in a form and from a financial institution acceptable to System Operator, as described on the System Operator's public website, or cash where cash deposits shall be treated according to Section 3.7 of this LGIP. The letter of credit must specify the Interconnection Request to which the Commercial Readiness Deposit corresponds. irrevocable letter of credit or cash where cash deposits will be treated according to Section 3.7 of this LGIP. If Interconnection Customer does not withdraw, the deposit shall be reconciled with and applied towards future construction costs described in the LGIA. Any amounts in excess of the actual construction costs shall be returned to Interconnection Customer within thirty (30) Calendar Days of the issuance of a final invoice for construction costs, in accordance with Article 12.2 of the pro forma LGIA. If Interconnection Customer withdraws or otherwise does not reach Commercial Operation, System Operator must refund the remaining deposit once the final invoice for study costs and Withdrawal Penalty is settled.
- (3) Exclusive Site Control for 100% of the proposed Generating Facility.

(4) A study deposit (to the extent that any additional study deposit is required) in the amount of \$250,000. for Interconnection Requests seeking NRIS or CNRIS, and one hundred thousand (\$100,000) for Interconnection Requests for which Interconnection Studies for NR Interconnection Service have been completed but have not achieved CNRIS or for Interconnection Requests seeking to change from existing NR Interconnection Service to CNR Interconnection Service that completed Interconnection Studies for NR Interconnection Service and are seeking to change from NR Interconnection Service to CNR Interconnection Service. Any unused balance of the study deposit associated with the Interconnection Request shall be applied toward the study deposit associated with the Transitional Cluster Study Agreement

System Operator shall conduct the Transitional Cluster Study and issue both an associated interim Transitional Cluster Study Report and an associated final Transitional Cluster Study Report. The Study Case for the Transitional Cluster Study, solely for purposes of studying requests for CNR Interconnection Service, shall also include those Generating Facilities qualified to obtain or increase CNR Interconnection Service pursuant to the Interim Qualification for Subsequent Commitment Periods described in Section III.13.A.2.2. The Study Case for the Transitional Cluster Study shall also include any CETU and associated system upgrades identified in a final CRPS Report prior to the opening of the Transitional Cluster Study, provided that System Operator receives Interconnection Requests that require such CETU. Consistent with the NC Interconnection Standard, the evaluation will include conditions where the projects proposed in the Interconnection Requests that are included in the CSIS are not dispatched against each other if they do not share a system constraint that would provide the basis for a redispatch condition. The CETU shall remain configured consistent with the megawatt quantity(ies) specified in the final CRPS report. In the event that all CETU-eligible Interconnection Requests withdraw from the Transitional Cluster Study, the CETU shall be removed from the Study Case. An Internal ETU can be considered, and included in the Transitional Cluster Study, in place of a CETU, or portion thereof, if all of the Interconnection Customers with Interconnection Requests included in the cluster that the ISO has determined need to use the Internal ETU have indicated by the end of the deadline to submit the Transitional Cluster Study Agreement that they have a contractual commitment in place providing for the Interconnection Customers to fund and the right to use the Internal ETU.

The interim Transitional Cluster Study Report shall provide the following information:

- identification of any circuit breaker short circuit capability limits exceeded as a result of the interconnection;
- identification of any thermal overload or voltage limit violations resulting from the interconnection;
- identification of Contingent Facilities
- identification of any instability or inadequately damped response to system disturbances resulting from the interconnection; and
- Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades that are expected to be required as a result of the Interconnection Request(s) and a non-binding, good faith estimate of cost responsibility and a non-binding, good faith estimated time to construct.

In addition to the information provided in the interim Transitional Cluster Study Report, the final Transitional Cluster Study Report shall provide a description of, estimated cost of, and schedule for construction of the Interconnecting Transmission Owner's Interconnection Facilities and Network Upgrades required to interconnect the Generating Facility to the New England Transmission System that resolve issues identified in the interim Transitional Cluster Study Report.

The interim and final Transitional Cluster Study Reports shall be issued within three hundred (300) and three hundred sixty (360) Calendar Days of the Commission-approved effective date of this LGIP, respectively, and shall be posted on System Operator's OASIS consistent with the posting of other study results pursuant to Section 3.5.1 of this LGIP. Interconnection Customer shall have thirty (30) Calendar Days to comment on the interim Transitional Cluster Study Report, once it has been received.

After System Operator issues the final Transitional Cluster Study Report, Interconnection Customer shall proceed pursuant to Section 11 of this LGIP. If Interconnection Customer withdraws its Interconnection Request or if Interconnection Customer's Generating Facility otherwise does not reach Commercial Operation, a Withdrawal Penalty will be imposed on Interconnection Customer equal to nine (9) times Interconnection Customer's total study cost incurred since entering the System Operator's interconnection queue (including the cost of studies conducted under Section 5 of this LGIP).

The Interconnection System Impact Cluster Study shall evaluate the impact of the proposed interconnection on the reliability and operation of the New England Transmission System. The Cluster Interconnection System Impact Study will consider the Base Case as well as all generating facilities and Elective Transmission Upgrades (and with respect to (iii) below, any identified Network Upgrades associated with such higher queued interconnection) that, on the date the Interconnection System Impact Cluster Study is commenced: (i) are directly interconnected to the New England Transmission System; (ii) are interconnected to Affected System or Internal Affected Systems and may have an impact on the Interconnection Request; (iii) have a pending higher queued Interconnection Request to interconnect to the New England Transmission System and may have an impact on the Interconnection Request; and (iv) have no Queue Position but have executed an Interconnection Agreement or requested that an unexecuted Interconnection Agreement be filed with the Commission (the "Study Case" for the Interconnection System ImpactCluster Study). The Study Case, solely for purposes of studying requests for CNR Interconnection Service, shall also include those Generating Facilities qualified to obtain or increase CNR Interconnection Service pursuant to the Interim Qualification for Subsequent Commitment Periods described in Section III.13.A.2.2. The Study Case shall also include any CETU and associated system upgrades identified in a final CRPS Report prior to the opening of the Cluster Request Window, provided that System Operator receives Interconnection Requests that require such CETU. Consistent with the NC Interconnection Standard, the evaluation will include conditions where the projects proposed in the Interconnection Requests that are included in the CSIS are not dispatched against each other if they do not share a system constraint that would provide the basis for a redispatch condition. The CETU shall remain configured consistent with the megawatt quantity(ies) specified in the final CRPS report. In the event that all CETU-eligible Interconnection Requests withdraw from a Cluster Study, the CETU shall be removed from the Study Case. An Internal ETU can be considered, and included in the Cluster Study, in place of a CETU, or portion thereof, if all of the Interconnection Customers with Interconnection Requests included in the cluster that the ISO has determined need to use the Internal ETU have indicated by the end of the Customer Engagement Window that they have a contractual commitment in place providing for the Interconnection Customers to fund and the right to use the Internal ETU. An Interconnection Customer with a CNR Interconnection Request may also request that the Interconnection System Impact Study include a preliminary, non-binding, analysis to identify potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff, based on a limited set of assumptions to be specified by the Interconnection Customer and reflected in Attachment A to the Interconnection System Impact Study Agreement.

For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Cluster Study shall consider the level of Interconnection Service requested by Interconnection Customers in the Cluster. However, the Cluster Study shall consider the full Generating Facility capability to ensure the acceptability of the proposed control technology to restrict the facility's output and the safety and reliability of the system.

The <u>Cluster Interconnection System Impact</u> Study will consist of a short circuit analysis, a stability analysis, a power flow analysis, such as electromagnetic transient analysis, including thermal analysis and voltage analysis, a system protection analysis and any other analyses that are deemed necessary by the System Operator in consultation with the Interconnecting Transmission Owner, the results of which are documented in a single Cluster Study Report, as applicable. Interconnecting Transmission Owner(s) and Internal Affected Systems (if applicable) shall provide to System Operator, within thirty (30) days of a request, and for purposes of inclusion in the Cluster Study Report, non-binding good faith estimates of cost responsibility for required upgrades, and a non-binding good faith estimated times to construct such upgrades.

At the conclusion of the Cluster Study, System Operator and Interconnecting Transmission Owner shall issue a Cluster Study Report. The Cluster Interconnection System Impact Study #Report will state the assumptions upon which it is based, state the results of the analyses, and provide the requirements or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Interconnection System Impact Study shall consider the level of Interconnection Service requested by the Interconnection Customer. However, the Interconnection System Impact Study shall consider the full Generating Facility capability to ensure the acceptability of the proposed control technology to restrict the facility's output and the safety and reliability of the system. \_ The Cluster Interconnection System Impact Study report will provide (i) a list of Interconnection Facilities and Network Upgrades facilities that are required to reliably interconnect the Generating Facilities in that Cluster Study as a result of the Interconnection Request and a non-binding good faith estimate of cost responsibility; (ii) a non-binding good faith estimated time to construct; (iii) a protection assessment to determine the required protection upgrades; and may provide (iv) an evaluation of the siting of the Interconnection Facilities and Network Upgrades; and (v) identification of the likely permitting and siting process including easements and environment work. The Cluster Report shall identify each Interconnection Customer's estimated allocated costs for Interconnection Facilities and

Network Upgrades pursuant to the method in Section 4.2.1 of this LGIP described in Schedule 11, Section II of the Tariff. System Operator shall hold an open stakeholder meeting pursuant to Section 7.4 of this LGIP. To the extent the Interconnection Customer requested a preliminary analysis as described in this Section 7.3, the Interconnection System Impact Study report will also provide a list of potential upgrades that may be necessary for the Interconnection Customer's Generating Facility to qualify for participation in a Forward Capacity Auction under Section III.13 of the Tariff.

For purposes of determining necessary Interconnection Facilities and Network Upgrades, the Cluster Study shall study Generating Facilities that include at least one electric storage resource, when studying the charging mode of the electric storage resource(s), using net shoulder system load as defined in System Operator's Planning Procedures. These requests for Interconnection Service also may be subject to other studies at the full Generating Facility CapacityGenerating Facility Capability to ensure safety and reliability of the system, with the study costs borne by Interconnection Customer. use operating assumptions (i.e., whether the interconnecting Generating Facility will or will not charge at peak load) that reflect the proposed charging behavior of a Generating Facility that includes at least one electric storage resource as requested by Interconnection Customer, unless System Operator determines that Good Utility Practice, including Applicable Reliability Standards, otherwise requires the use of different operating assumptions. System Operator may require the inclusion of control technologies sufficient to limit the operation of the Generating Facility per the operating assumptions as set forth in the Interconnection Request and to respond to dispatch instructions by Transmission Provider. As determined by Transmission Provider, Interconnection Customer may be subject to testing and validation of those control technologies consistent with Article 6 of the LGIA.

The Cluster Study shall evaluate the use of static synchronous compensators, static VAR compensators, advanced power flow control devices, transmission switching, synchronous condensers, voltage source converters, advanced conductors, and tower lifting. System Operator shall determine, in the manner described in the ISO New England Planning Procedures, whether the above technologies should be used, consistent with Good Utility Practice and other applicable regulatory requirements. System Operator shall include an explanation of the results of the System Operator's evaluation for each technology in the Cluster Study Report.

#### **II.48** Interconnection Service Capabilities

#### II.48.1 Establishing CNR Capability and CNI Capability

(a) CNR Capability shall be established as follows: Section 5.2.3 of Schedule 22 and Section 5.2.3 1.6.4.3 of Schedule 23 of this OATT describe the establishment of CNR Capability for a Generating Facility that was treated as an Existing Generating Capacity Resource in the fourth Forward Capacity Auction. For a Generating Facility newly obtaining or increasing CNR Interconnection Service in the fourth Forward Capacity Auction-or\_throughin Forward Capacity Market activities prior to September 1, 2024 or pursuant to the Interim Qualification for Subsequent Commitment Periods described in Section III.13.A.2.2, prior to the nineteenth Forward Capacity Auction, thereafter, summer CNR Capability shall be established as the highest MW quantity of Capacity Supply Obligation obtained by the Generating Capacity Resource for the summer period and winter CNR Capability shall be established as the higher of (1) the highest MW quantity of Capacity Supply Obligation obtained by the associated Generating Capacity Resource for the winter period and (2) the Generating Facility's summer CNR Capability multiplied by the ratio of the Generating Capacity Resource's winter Qualified Capacity to summer Qualified Capacity for the auction in which the entry occurred. Subsequent to Commencing September 1, 2024, except for those Generating Facilities newly obtaining or increasing CNR Interconnection Service pursuant to the Interim Qualification for Subsequent Commitment Periods described in Section III.13.A.2.2, For the nineteenth Forward Capacity Auction and thereafter, the summer and winter CNR Capability for a Generating Facility shall be established as the amounts requested in the Generating Facility's Interconnection Request, for which all of the requirements in the Interconnection Procedures of the interconnection process have been completed, and which shall not exceed the

At the time of its establishment pursuant to the preceding paragraph, a Generating Facility's CNR Capability shall not exceed its maximum net MW electrical output at the Point of Interconnection at an ambient temperature at or above 90 degrees F for summer and at or above 20 degrees F for winter.

A Generating Facility that uses the Interim Reconfiguration Auction Qualification process described in Section III.13.A.2 shall only establish CNR Capability for purposes of participation in the activities described in such section. A Generating Facility that did not qualify to participate in the eEighteenth Forward Capacity Auction or a prior auction, may establish temporary CNRIS through the process described in Section III.13.A.2-the - Interim Reconfiguration Auction Qualification process described

in Section III.13.A.2, provided that the Generating Facility 1) has achieved NR Interconnection Service through the I interconnection Procedures and 2) has an effective Interconnection Agreement that denotes with a Commercial Operation Date prior to June 1, 2026.

<del>(b)</del>

#### <del>(c)</del>(a)

(b) CNI Capability shall be established as follows: Summer and winter CNI Capability for an External ETU with CNI Interconnection Service pursuant to Schedule 25 of this OATT shall be established as the amounts requested in the External ETU's Interconnection Request for which all of the requirements of the interconnection process have been completed-shall be established as the total MW quantity of Capacity Supply Obligation(s) obtained by its associated New Import Capacity Resource(s) in the summer and winter periods, respectively.

At the time of its establishment pursuant to the preceding paragraph, the CNI Capability shall not exceed the maximum net MW electrical capability at the Point of Interconnection and shall not exceed applicable seasonal equipment ratings determined pursuant to industry standards and consistent with the specifications described in ISO New England Planning and Operating Procedures.

#### II.48.2 Establishing NR Capability and NI Capability

- (a) NR Capability shall be established in the manner described in Schedules 22 and 23 of this OATT.

  SS as follows: Section 5.2.4 of Schedule 22 and Section 1.6.4.4 of Schedule 23 of this OATT describe the establishment of NR Capability for a Generating Facility that was treated as an Existing Generating Capacity Resource in the fourth Forward Capacity Auction. In all other cases, summer and winter NR Capability for a Generating Facility shall be established as the Generating Facility's maximum net MW electrical output at the Point of Interconnection at an ambient temperature at or above 50 degrees F for summer and at or above 0 degrees F for winter. A Generating Facility's summer and winter NR Capability shall be equal to or greater than its summer and winter CNR Capability, respectively.
- **(b) NI Capability shall be established as follows:** For an External ETU with NI Interconnection Service pursuant to Schedule 25 of this OATT, summer and winter NI Capability shall be established as the maximum net MW electrical capability at the Point of Interconnection and shall not exceed applicable seasonal equipment ratings determined pursuant to industry standards and consistent with the specifications described in ISO New England Planning and Operating Procedures. An External ETU's

summer and winter NI Capability shall be equal to or greater than its summer and winter CNI Capability, respectively.

II.48.3 Reductions to CNR Capability and CNI Capability: CNR Capability and CNI Capability shall be reduced as follows upon partial or full exit from the Forward Capacity Market as a result of any of the following actions: (1) a voluntary or mandatory termination pursuant to Section III.13.3.4A of the Tariff results in a reduction to summer and winter CNR Capability (or summer and winter CNI Capability) equal to the respective reduction to summer and winter Qualified Capacity described in III.13.3.4A; (2) the failure of the Import Capacity Resource(s) associated with an External ETU to offer into a Forward Capacity Auction in a MW quantity equal to the CNI Capability of the External ETU, as described in Section III.13.1.3 of the Tariff, results in a reduction to summer and winter CNI Capability equal to the respective reduction to summer and winter Capacity Network Import Interconnection Service described in Section III.13.1.3; (3(2)) a failure to operate commercially for a period of three calendar years resulting in retirement pursuant to Section III.13.2.5.2.5.3(d) of the Tariff results in a reduction of summer and winter CNR Capability (or summer and winter CNI Capability) to zero; (4) a full exit from the Forward Capacity Market as the result of the operation of a Retirement De-List Bid or a Permanent De-List Bid, described in Section III.13.2.5.2.5.3 of the Tariff, and/or a substitution auction demand bid, described in Section III.13.2.8 of the Tariff, results in a reduction of summer and winter CNR Capability (or summer and winter CNI Capability) to zero; and a partial exit from the Forward Capacity Market as the result of the operation of a Retirement De-List Bid or a Permanent De-List Bid and/or a substitution auction demand bid results in a reduction of CNR Capability (or CNI Capability) as described below.

- (a) Summer CNR/CNI Capability Following Partial Exit Resulting From De-List Bid and/or Substitution Auction Demand Bid: Following the partial permanent exit from the Forward Capacity Market of a Generating Capacity Resource (or an Import Capacity Resource associated with an External ETU) as a result of the operation of a de-list bid and/or a substitution auction demand bid, the summer CNR Capability of the associated Generating Facility (or the summer CNI Capability of the associated External ETU) shall be reduced to equal (1) the associated summer Qualified Capacity (or, where there is more than one Import Capacity Resource associated with an External ETU, the sum of the associated summer Qualified Capacities) for the Forward Capacity Auction in which the partial exit occurred minus (2) the MW quantity that exited the Forward Capacity Market.
- (b) Winter CNR/CNI Capability Following Partial Exit Resulting From De-List Bid and/or Substitution Auction Demand Bid: Following the partial permanent exit from the Forward Capacity

Market of a Generating Capacity Resource (or an Import Capacity Resource associated with an External ETU) as a result of the operation of a de-list bid and/or a substitution auction demand bid, the winter CNR Capability of the associated Generating Facility (or the winter CNI Capability of the associated External ETU) shall be reduced to equal (1) the Generating Facility's summer CNR Capability (or the External ETU's summer CNI Capability) reduced as described in subsection (a) of this Section II.48.3 multiplied by (2) the ratio of the associated winter Qualified Capacity (or, where there is more than one Import Capacity Resource associated with an External ETU, the sum of the associated winter Qualified Capacity (or, where there is more than one Import Capacity Resource associated with an External ETU, the sum of the associated summer Qualified Capacity (apacity Auction in which the partial exit occurred; provided that a different winter CNR Capability value may be established to account for winter capability remaining after the removal of summer capability if the ISO determines that engineering information submitted no later than 10 calendar days after the conclusion of the Forward Capacity Auction supports the use of the different value.

II.48.4 Reductions to NR Capability and NI Capability: NR Capability and NI Capability shall be reduced as follows for Generating Facilities and External ETUs as a result of any of the following actions: (1) a partial or full voluntary retirement results in partial or full reduction of NR Capability or NI Capability; (2) a failure to operate commercially for a period of three calendar years (as described in Section III.13.2.5.2.5.3(d) of the Tariff) results in a reduction of NR Capability or NI Capability to zero; (3) a full retirement of a Generating Facility or an External ETU as the result of the operation of a Retirement De-List Bid or an unconditional Permanent De-List Bid (as described in Section III.13.1.2.4.1(a) and Section III.13.2.5.2.5.3 of the Tariff) and/or a substitution auction demand bid (as described in Section III.13.2.8 of the Tariff) results in a reduction of NR Capability or NI Capability to zero; and a partial retirement as the result of the operation of a Retirement De-List Bid or an unconditional Permanent De-List Bid and/or a substitution auction demand bid results in a reduction of NR Capability or NI Capability as described below.

(a) Summer NR/NI Capability Following Partial Retirement Resulting From De-List Bid and/or Substitution Auction Demand Bid: Following the partial retirement of a Generating Facility (or an External ETU) as a result of the operation of a de-list bid and/or a substitution auction demand bid, the summer NR Capability of the Generating Facility (or summer NI Capability of the External ETU) shall be reduced to equal (1) the Generating Facility's summer CNR Capability (or the External ETU's summer CNI Capability) reduced as described in subsection (a) of Section II.48.3 multiplied

by (2) the ratio of the Generating Facility's summer NR Capability (or the External ETU's summer NI Capability) prior to the Forward Capacity Auction to the Generating Facility's summer CNR Capability (or the External ETU's summer CNI Capability) prior to the Forward Capacity Auction.

(b) Winter NR/NI Capability Following Partial Retirement Resulting From De-List Bid and/or Substitution Auction Demand Bid: Following the partial retirement of a Generating Facility (or an External ETU) as a result of the operation of a de-list bid and/or a substitution auction demand bid, the winter NR Capability of the Generating Facility (or winter NI Capability of the External ETU) shall be reduced to equal (1) the Generating Facility's summer NR Capability (or the External ETU's summer NI Capability) reduced as described in subsection (a) of this Section II.48.4 multiplied by (2) the ratio of the Generating Facility's winter NR Capability (or the External ETU'S winter NI Capability) prior to the Forward Capacity Auction to the Generating Facility's summer NR Capability (or the External ETU'S summer NI Capability) prior to the Forward Capacity Auction; provided that a different winter NR Capability value may be established to account for winter capability remaining after the removal of summer capability if the ISO determines that engineering information submitted no later than 10 calendar days after the conclusion of the Forward Capacity Auction supports the use of the different value.

However, if the resulting winter NR Capability (or winter NI Capability) is less than the Generating Facility's winter CNR Capability (or External ETU's winter CNI Capability), the winter NR Capability (or winter NI Capability) will be set equal to the winter CNR Capability (or winter CNI Capability).