

Order No. 2023 - Improvements to Generator Interconnection Procedures and Agreements



*Summary of Tariff Redline Updates since the
December 2023 TC Meeting*

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Presentation Overview

- ISO has [posted](#) an updated draft of all Tariff redlines associated with Order No. 2023 compliance
- This presentation summarizes the major updates to the Tariff redlines since the December TC meeting
- Focus on Large Generator Interconnection Procedures (LGIP) in Schedule 22 of the Open Access Transmission Tariff (OATT)
 - The Small Generator Interconnection Procedures (SGIP) in Schedule 23 of the OATT have been overhauled to mirror the LGIP
 - The Elective Transmission Upgrade Interconnection Procedures (ETUIP) in Schedule 25 of the OATT also closely match the LGIP



UPDATES TO THE TARIFF REDLINES SINCE THE DECEMBER TC MEETING

Tariff Section	Tariff Change	Reason for Change
LGIP Definitions	<u>Affected System Operator shall mean the entity that operates an External Affected System.</u>	In various places, updates have been made to clarify the distinction between internal and external Affected Systems



Tariff Section	Tariff Change	Reason for Change
LGIP Definitions	<p>Cluster Enabling Transmission Upgrade (“CETU”) shall mean new significant transmission line infrastructure that consists of AC transmission lines and related terminal equipment having a nominal voltage rating at or above 115 kV or HVDC transmission lines and HVDC terminal equipment that is identified through the Clustering Enabling Transmission Upgrade Regional Planning Study conducted <u>in accordance with Attachment K, Section 2 of the Tariff as a result of the triggering of conditions in Section 4.2.1.</u> conducted to accommodate the Interconnection Requests for which the conditions identified in Section 4.2.1 have been triggered.</p>	<p>Clarified that a Clustering Enabling Transmission Upgrade Regional Planning Study is conducted pursuant to Attachment K</p>



Tariff Section	Tariff Change	Reason for Change
LGIP Definitions	<p>Cluster Participation Deposit<u>CETU Participation Deposit</u> shall mean <u>a Commercial Readiness Deposit as described in the initial and additional deposit due under Sections 4.2.3.2.2 and 4.2.4.4.</u></p>	<p>Clarifies that the CETU Participation Deposit serves as the readiness deposit in the case of a CETU enabled project</p>



Tariff Section	Tariff Change	Reason for Change
LGIP Definitions	<p><u>Proportional Impact Method shall mean a technical analysis conducted by the System Operator in accordance with the criteria and parameters specified in the ISO New England Planning Procedures to determine the degree to which each Generating Facility in the Cluster Study contributes to the need for a specific System Network Upgrade.</u></p>	Clarification in response to stakeholder feedback



Tariff Section	Tariff Change	Reason for Change
LGIP Definitions	<p>Queue Position shall mean the order of a valid request in the New England Control Area, relative to all other pending requests in the New England Control Area, that is established based upon the date and time of receipt of such request by the System Operator. Requests are comprised of interconnection requests for Generating Facilities, Elective Transmission Upgrades, and requests for transmission service and notification of requests for interconnection to other electric systems, as notified by the other electric systems, that impact the Administered Transmission System.</p>	<p>Changed as a result of the Section 9.3 - Affected System Queue Position being added</p>



Tariff Section	Tariff Change	Reason for Change
LGIP Section 3.1	<p>Within three (3) Business Days after <u>the close of the Cluster Request Window</u>its receipt of a valid Interconnection Request, System Operator shall submit a copy of <u>all valid the</u> Interconnection Requests received to Interconnecting Transmission Owner(s).</p>	<p>Added language back that describes the sharing of requests with Transmission Owners</p>



Tariff Section	Tariff Change	Reason for Change
LGIP Section 3.1	<p> <u>System Operator 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 ISO New England Planning Procedures. These requests for Interconnection Service also may be subject to other studies at the full Generating Facility CapacityCapacity to ensure safety and reliability of the system, with the study costs borne by Interconnection Customer.</u> </p>	<p> Deleting language initially copied from the Order. Language is not needed given the ISO's proposed approach. </p>

Tariff Section	Tariff Change	Reason for Change
<p>LGIP Section 3.4.1.1</p>	<p><u>Interconnection Customer shall submit to System Operator, during a Cluster Request Window, an Interconnection Request in the form of Appendix 1 to this LGIP, a potentially non-refundable initial deposit of \$50,000, and a refundable study deposit of \$250,000 (for new requests for NR Interconnection Service or CNR Interconnection Service) or \$100,000 (for requests to change from existing NR Interconnection Service to CNR Interconnection Service).</u> System Operator shall apply the initial deposit toward the costs incurred by the System Operator associated with the Interconnection Request, the cost of developing the study agreements and their attachments, and the cost of developing the LGIA. The study deposit shall be applied toward the cost of the Cluster Study. For consistency with presented design.</p>	<p>Corrected language to clearly capture proposed deposit design.</p>

Tariff Section	Tariff Change	Reason for Change
LGIP Section 3.4.4.1	<p>The Interconnection Customer shall be responsible for the costs associated with the studies or portions of studies associated with the <u>Internal Affected Systems</u>, including costs associated the requirements of Section I.3.9 of the Tariff.</p>	<p>Adding to clarify that confirmation of no adverse impact on Internal Affected Systems is finalized though the I.3.9 process – and Interconnection Customer is required to pay such costs.</p>

Tariff Section	Tariff Change	Reason for Change
LGIP Section 4.1.1	<p>System Operator shall assign a Queue Position based upon the date and time of receipt of the valid Interconnection Request <u>provided all items required pursuant to the provisions of Section 3.4.2 of this LGIP are received.</u> All Interconnection Requests submitted and validated in a single Cluster Request Window shall be considered equally queued. A higher Queue Position assigned to an Interconnection Request is one that has been placed “earlier” in the queue in relation to another Interconnection Request that is assigned a lower Queue Position. All requests studied in a single Cluster Study shall be considered equally queued. Interconnection Customers that are part of Clusters initiated earlier in time than an instant Cluster Study shall be considered to have a higher Queue Position than Interconnection Customers that are part of Cluster Studies initiated later than an instant Cluster Study.</p>	<p>Including pro forma language to clarify queue position.</p>

Tariff Section	Tariff Change	Reason for Change
LGIP Section 4.2	<p> <u>The System Operator may use subgroups in the Cluster Study Process. If the System Operator elects n all instances in which System Operator elects to use subgroups in the Cluster Study Process, System Operator must publish the criteria used to define and determine subgroups on its OASIS or public website prior to the opening of a Cluster Request Window.</u> </p>	<p> As the ISO has discussed in the presentations of Order 2023 compliance, the ISO does not intend to use subgroups in the clustering process. This language clarifies that if the ISO ever decides to use subgroups, criteria will be published prior to the opening of the CRW. </p>

Tariff Section	Tariff Change	Reason for Change
LGIP Section 4.2.3.1.1	<p><u>request to be included in the Transitional Cluster Study, meet the requirements specified in Section 5.1.1.2 (except for the Commercial Readiness Deposit), and submit to the System Operator the CETU Participation Deposit specified in Section 4.2.3.2 of this LGIP. Such deposit shall be paid in cash.</u></p>	<p>Clarifies that the initial readiness deposit in the case of a CETU enabled Generating Facility must be in cash, consistent with current CETU rules.</p>



Tariff Section	Tariff Change	Reason for Change
LGIP Section 4.2	<p> If the System Operator subsequently identifies that an Internal ETU has met the requirements to take the place of a CETU, or portion thereof, pursuant to Sections <u>5.1.1.2 and 7.3 4.2.3.4</u> of this LGIP, the initial CETU Participation Deposit will be reduced to exclude the costs associated with the CETU, or portion thereof, that is being replaced by the Internal ETU, and the Interconnection Customer shall be refunded the corresponding amount. Cost allocation of the CETU and associated system upgrades shall be in accordance with Schedule 11, Section II of this Tariff. </p>	Reinstating language inadvertently deleted.



Tariff Section	Tariff Change	Reason for Change
LGIP Section 4.2.4.3	<p> Upon withdrawal of an Interconnection Request included in the CFAC, the System Operator will backfill the CSIS with eligible Interconnection Requests pursuant to Section 4.2.3.3.3 </p>	<p>Backfilling is no longer implementable give the change to the meaning of Queue Position.</p>

Tariff Section	Tariff Change	Reason for Change
LGIP Section 4.2.3.1.1	<p>The additional CETU Participation Deposit provided under this Section 4.2.4 will be fully refunded (with interest to be calculated in accordance with Section 3.7 of this LGIP) to the Interconnection Customer that submitted the additional CETU Participation Deposit <u>(i) at the time the Interconnection Customer with an Interconnection Request included in the CSIS provides to the Interconnecting Transmission Owner the deposit specified in Section 11.3.1.2 of this LGIP or (ii) if all Interconnection Requests included in the cluster withdraw from the interconnection queue.</u></p>	<p>Clarifying the circumstances for the refundability of the CETU Participation Deposit. Note that this only applies to transition.</p>

Tariff Section	Tariff Change	Reason for Change
<p>LGIP Section 4.4</p>	<p>A new Interconnection Request shall be required to A request to:</p> <p>(1) increase the energy capability or capacity capability output of a Generating Facility above that specified in an Interconnection Request, an existing Interconnection Agreement (whether executed or filed in unexecuted form with the Commission), or as established pursuant to Section 5.2 of this LGIP shall require a new Interconnection Request for the incremental increase to be submitted during a future Customer Entry Window and such Interconnection Request will receive the lowest Queue Position available at that time for the purposes of cost allocation and study analysis; or and (2) change from NR Interconnection Service to CNR Interconnection Service, at any time. shall require a new Interconnection Request for CNR Interconnection Service and such Interconnection Request to be submitted during a future Customer Request Window will receive the lowest Queue Position available at that time for the purposes of cost allocation and study analysis.</p>	<p>Revisions for clarity.</p>

Tariff Section	Tariff Change	Reason for Change
<p>LGIP Section 4.4</p>	<p>During the course of the Interconnection Studies, either the System Operator, Interconnection Customer, Interconnecting Transmission Owner, or any Affected Party or Internal Affected Party as deemed appropriate by the System Operator in accordance with applicable codes of conduct and confidentiality requirements, may identify changes to the planned interconnection that may improve the costs and benefits (including reliability) of the interconnection, and the ability of the proposed change to accommodate the Interconnection Request. To the extent the identified changes do not constitute a Material Modification and are acceptable to the Parties, such acceptance not to be unreasonably withheld, System Operator and the Interconnecting Transmission Owner shall modify the Point of Interconnection prior to the completion of a executed Cluster Study Agreementand/or configuration in accordance with such changes and proceed with any re-studies necessary to do so in accordance with Section 6.4, Section 7.6 and Section 8.5 as applicable and Interconnection Customer shall retain its Queue Position.</p>	<p>Clarifies that the POI can be updated, pursuant to this clause, during the Cluster Study.</p>

Tariff Section	Tariff Change	Reason for Change
LGIP Section 5.1.1.2	<p> <u>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 which that 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.</u> </p>	Clarified language based on feedback from stakeholders.

Tariff Section	Tariff Change	Reason for Change
LGIP Section 6.1	<p><u>These metrics must be calculated based on the power flow model of the Administered Transmission System with the transfer simulated from each point of interconnection to the whole Administered Transmission System footprint (to approximate Capacity Network Resource Interconnection Service), and with the incremental capacity at each point of interconnection decremented by the existing and queued Generating Facilities (based on the existing or requested interconnection service limit of the generation).</u></p>	<p>Consistent with the requirements of Order No. 2023, the ISO's compliance proposal will be for the Heatmap to approximate CNRIS. The ISO will continue to evaluate further enhancements to the Heatmap in the future.</p>



Tariff Section	Tariff Change	Reason for Change
LGIP Section 7.3	<p> <u>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 Transmission Provider’s evaluation for each technology in the Cluster Study Report.</u> </p>	<p> Including Order No. 2023 language that was inadvertently left out of the last draft. The ISO will provide process details in the Planning Procedures and will include explanations of the outcomes in the study reports. </p>



Tariff Section	Tariff Change	Reason for Change
LGIP Section 7.5	<p> Notwithstanding the foregoing sentence, the option to waive the Interconnection Facilities Study is not available for Interconnection Customers that share responsibility for the same Network Upgrades identified in a Cluster Study or Cluster Restudy unless each </p> <p> Where more than one Interconnection Customer is responsible for the same Network Upgrades resulting from a Cluster Study or Cluster Restudy, all such Interconnection Customers must agree in writing to waive the Interconnection Facilities Study. In a case where Interconnection Customers share responsibility for the same Network Upgrades identified in a Cluster Study or Cluster Restudy and do not agree to waive the Interconnection Facilities Study, such study shall be performed at a level of +/- 20% </p>	<p>Clarifies the ability of Interconnection Customers to waive the Facility Study in the case where there are shared upgrades. Where there are shared upgrades, the estimate accuracy is +/- 20%.</p>



Tariff Section	Tariff Change	Reason for Change
<p>LGIP Section 11.1</p>	<p>Interconnection Customer shall tender comments or provide notice, in writing, to the System Operator and Interconnecting Transmission Owner that the Interconnection Customer has no comments on the draft Interconnection Facilities Study Report or on the draft Cluster Study Report (or associated restudies) Interconnection System Impact Study report if the Interconnection Customer waived the Interconnection Facilities Study, within thirty (30) Calendar Days of receipt of the report. Except as provided in the E&P Agreement or any mutual agreement by the entities that would be Parties to the LGIA, the System Operator shall initiate the development of the LGIA process within fifteen (15) Calendar Days after the comments are submitted or waived, or within fifteen (15) Calendar Days of notifying System Operator that it will waive the Facilities Study</p>	<p>Clarifies the timing of tender of the IA if the Facilities Study is waived.</p>

Tariff Section	Tariff Change	Reason for Change
<p>LGIP Section 11.2</p>	<p><u>In the event that the Interconnection Customer waives the Interconnection Facilities Study and proceeds directly from the Cluster Study or Cluster Restudy to LGIA negotiation, the Interconnection Customer shall provide the an additional deposit that brings the total Commercial Readiness Deposit submitted to the System Operator to ten percent (10%) additional 5% Commercial Readiness Deposit required by Section 8.1 of this LGIP within thirty (30) Calendar Days of the Cluster Study Report Meeting or Cluster Restudy Report meeting (as applicable)</u></p>	<p>Clarifies that the Commercial Readiness Deposit needed bring the deposit to a total of 10%. at the time of the Facilities Study is required to be made in the case where the Facilities Study is waived</p>

Tariff Section	Tariff Change	Reason for Change
LGIP Section 11.3.1.2	<p>At the same time, the Interconnection Customer with an Interconnection Request that was not studied using Clustering shall commit to a schedule for the payment of upgrades identified in the Interconnection Studies or an E&P Agreement</p>	<p>Restoring inadvertently deleted language.</p>



LGIP Appendix 1 – Interconnection Request

Requested capacity (in MW) of Interconnection Service (in MW) (if lower than the Generating

Facility Capacity):

Temperatures ¹ Service Level ²	Requested Gross MW Electrical Output ³	Requested Net MW Electrical Output ³	Requested Net MW Capability at the Point of Interconnection ⁴
CNR Capability SummerAt or above 90 degrees F			
NR Capability SummerAt or above 50 degrees F			
CNR Capability WinterAt or above 20 degrees F			
NR Capability WinterAt or above 0 degrees F			

Clarifies entries are specific levels of service requested

STAKEHOLDER SCHEDULE



Transmission Committee Stakeholder Schedule

Stakeholder Committee and Date	Scheduled Project Milestone
Transmission Committee <u>August 22, 2023</u>	NEPOOL Counsel's Overview Presentation
Transmission Committee <u>September 27, 2023</u>	ISO-NE Overview on Order 2023, Discussion of Capacity Interconnection Service Considerations, and Discussion of Transition Process
Transmission Committee <u>October 17, 2023</u>	ISO-NE Presentation & Initial Review of Tariff Redlines Stakeholder Conceptual Amendments
Transmission Committee <u>November 9, 2023</u>	ISO-NE Updates Filing Plans, Delivers additional detail on Transition Timeline as it Relates to FCA 19 Delay Stakeholder Conceptual Amendments
Transmission Committee <u>December 21, 2023</u>	ISO-NE Redline Review of Compliance Stakeholder Amendments (time permitting)

Transmission Committee Stakeholder Schedule

Stakeholder Committee and Date	Scheduled Project Milestone
Transmission Committee January 4, 2024	Stakeholder Amendments
Transmission Committee January 23, 2024	ISO-NE Continues Discussion on Compliance and 205 Proposal, Reviews Substantive Incremental Redlines, Responds to Stakeholder Questions Stakeholder Amendment Discussions
Transmission Committee February 15, 2024	Review of Incremental Updates to Compliance and 205 Filing Language, Respond to Stakeholder questions, Vote Stakeholder Amendments & Votes
Participants Committee March 7, 2024	Vote
April 1, 2024	File Compliance and 205 Filings

Questions

