



September 13, 2024

VIA ELECTRONIC FILING

The Honorable Debbie-Anne A. Reese, Acting Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: ISO New England Inc., Correction to Interconnection Study Metrics Second Quarter, 2024 Processing Time Exceedance Report; Docket No. ER19-1951-000_

Dear Acting Secretary Reese:

On August 14, 2024, pursuant to Rule 1907 of the Federal Energy Regulatory Commission's ("Commission") Rules of Practice and Procedure,¹ ISO New England Inc. ("ISO-NE" or the "ISO")² submitted its *Interconnection Study Metrics Second Quarter, 2024 Processing Time Exceedance Report* (the "Report") in the above-referenced docket.³ The Report was submitted consistent with the requirements set forth in Order Nos. 845 and 845-A,⁴ and Section 3.5.4 of Schedule 22 of the ISO's Open Access Transmission Tariff ("OATT"), which contains the Large Generator Interconnection Procedures ("LGIP").

¹ 18 C.F.R. § 385.1907 (2019).

² Capitalized terms not otherwise defined herein have the meanings ascribed thereto in the ISO New England Inc. Transmission, Markets and Services Tariff ("Tariff"). Section II of the Tariff contains the ISO's Open Access Transmission Tariff ("OATT").

³ *ISO New England Inc., Interconnection Study Metrics Second Quarter, 2024 Processing Time Exceedance Report*, Docket No. ER19-1951-000 (filed Aug. 14, 2024) ("August 14 Filing").

⁴ *Reform of Generator Interconnection Procedures and Agreements*, Order No. 845, 163 FERC ¶ 61,043 ("Order No. 845"), *order on reh'g*, 166 FERC ¶ 61,137 (2019) ("Order No. 845-A").

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After the Report was filed, the ISO identified that the entry for Queue Position No. 1320 (“QP1320”) (Section 2.3 in both the Public and Confidential versions of the Report) contained an error. Specifically, Section 2.3.3 stated that:

The Interconnection Request for this project is dependent on the Interconnection Studies for the following higher-queued requests: QP944, QP1116, QP1121, QP1238, QP1292, and QP1298.

The entry should not have included QP1121 in the list of project dependencies because it is not electrically relevant to QP1320. Accordingly, Section 2.3.3 should instead read as follows.

The Interconnection Request for this project is dependent on the Interconnection Studies for the following higher-queued requests: QP944, QP1116, ~~QP1121~~, QP1238, QP1292, and QP1298.

To address this error, the ISO is submitting corrected Public and Confidential versions of the Report (“Corrected Report”) to the Commission along with this transmittal letter.

The ISO also notes that QP1121 had been erroneously listed in the final report for the Interconnection System Impact Study (“SIS”) for QP1320. For completeness, the references to QP1121 have been deleted from the study case list in the final SIS report for QP1320 as it was not electrically relevant, and the report has been reissued.

The ISO requests that the Commission treat the information contained in Section 3 of the un-redacted version of the Corrected Report as confidential under Section 388.112(b) of the Commission’s regulations, as requested in the August 14 Filing.

Please do not hesitate to contact me with any questions.

Respectfully submitted,

By: /s/ Graham Jesmer

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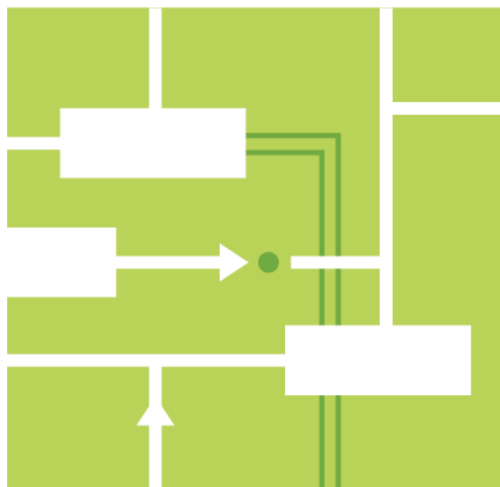
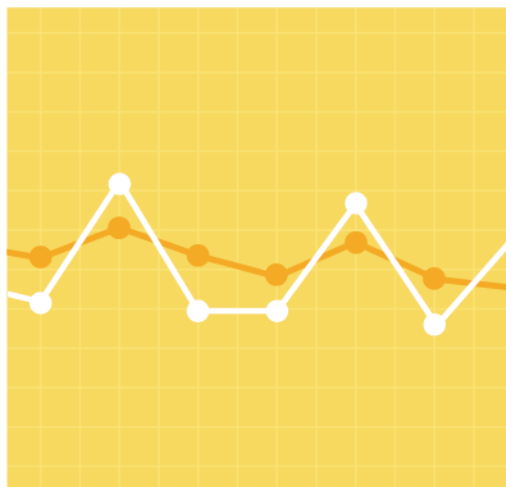
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Interconnection Study Metrics Second Quarter, 2024 Processing Time Exceedance Report

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AUGUST 14, 2024

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Section 1

Summary Metrics

Section 3.5.4 of Schedule 22 of the ISO New England Open Access Transmission Tariff requires that the ISO comply with specified reporting measures when certain Interconnection Study timeline metrics have been exceeded for consecutive calendar quarters.

In particular, the ISO must submit a report to the Commission describing the reason for each Interconnection Study (or group of clustered studies) undertaken pursuant to an Interconnection Request that exceeded its deadline for completion (excluding any allowance for Reasonable Efforts). The ISO must describe the reasons for each study delay and any steps taken to remedy these specific issues and, if applicable, prevent such delays in the future. This report must be filed with the Commission within 45 days of the end of the calendar quarter.¹

1.1 Q2 2024 Study Timeline Metrics Summary

In Q2 2024, one Interconnection Feasibility Study (Feasibility Study) report was delivered to the Interconnection Customer later than the best efforts completion timeline of 90 days. In addition, thirty-two Feasibility Studies that are not yet completed have exceeded the 90-day completion expectation. The average time from executed Feasibility Study Agreement receipt to delivery of completed Feasibility Study report to the Interconnection Customer was 307 days, which is approximately 125 days later than during Q1 2024. The delays are attributable partly to the need to iterate data with Interconnection Customers, the inability of the ISO to begin the studies because of project dependencies (i.e. the need to complete studies for higher queued projects), the timing needed for the Transmission Owners and Affected Parties to prepare cost estimates and time to construct estimates, as well as the need to include Affected System analyses.

In Q2 2024, four Interconnection System Impact Study (System Impact Study) reports were delivered to Interconnection Customers. Three of these System Impact Studies were delivered later than the best efforts completion timeline of 270 days. In addition, thirty-one System Impact Studies that are not yet completed have exceeded the 270-day completion expectation. The average time from executed System Impact Study Agreement receipt to delivery of completed System Impact Study report to the Interconnection Customer was 416 days, which has decreased by approximately 120 days since the previous quarter. The delays are mostly attributable to the inability of the ISO to begin the studies because of project dependencies (i.e. the need to complete studies for higher queued projects), the timing needed for the Transmission Owners and Affected Parties to prepare cost estimates and time to construct estimate, as well as iterative data issues. Late stage queue withdrawals have also triggered the need for several restudies.

In Q2 2024, no Facility Study reports were delivered to Interconnection Customers. In addition, three Facility Studies in process have exceeded the 90-day completion expectations for a 20% level of cost estimate.

¹ Note that, in addition to this report, as required by Section 3.5.4 of Schedule 22, the ISO posts on its website the total aggregate number of employee hours and third party consultant hours expended towards Interconnection Studies for its Administered Transmission System for that quarter [<http://www.oasis.oati.com/isne/>].

1.2 Study Timeline Trends

The first chart below represents the average number days from when Interconnection Customers executed study agreements to when they received completed study reports for each quarter. The second chart shows the average number of days from when studies commenced to when Interconnection Customers received completed study reports.

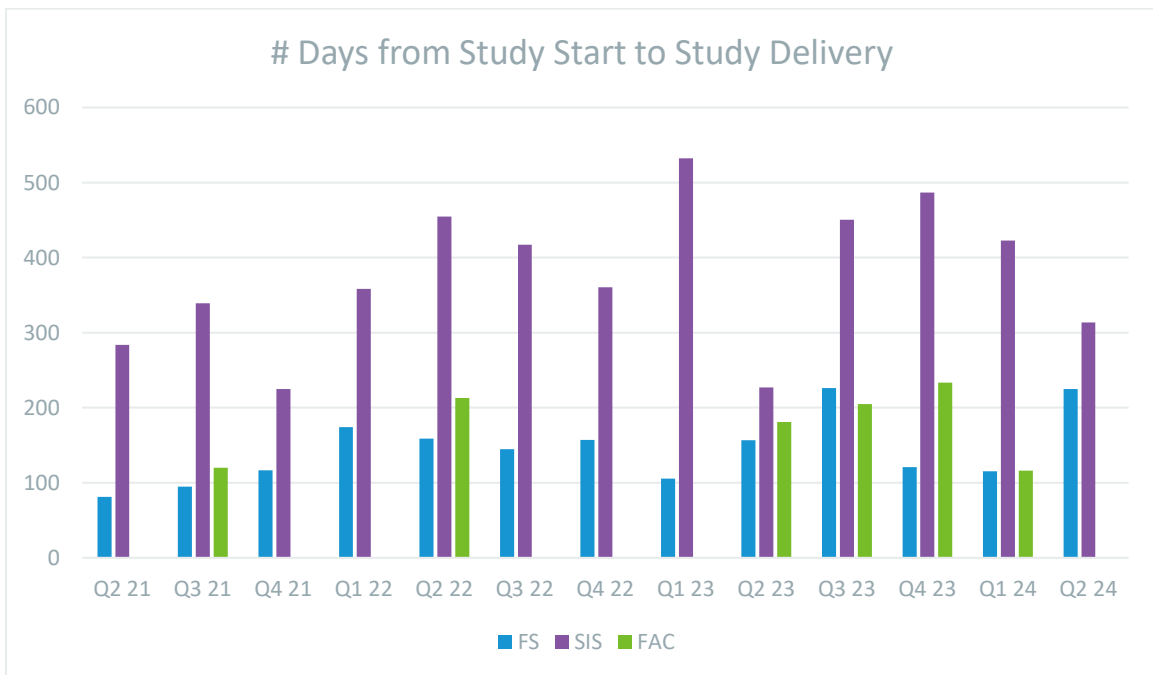
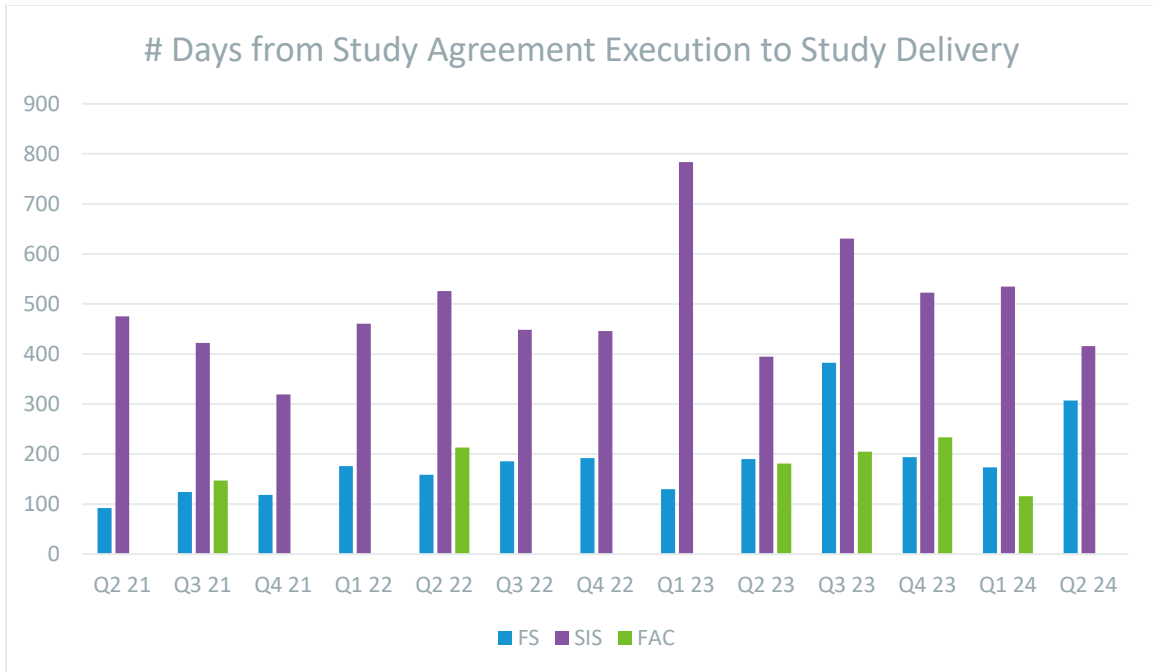
As discussed in Section 2 of this report, delays in completing studies within the best efforts completion timeline are generally attributable to factors outside the ISO's control - such as, data issues, issues related to higher-queued projects, delays in receiving cost estimates from Transmission Owners, or a combination thereof. In general, once studies begin, they have been completed closer to the best efforts periods.

Data issues continued to contribute to the delays observed for the Interconnection Studies timelines in Q2 2024. These studies included the analysis of large offshore wind farms and inverter-based resources, which generally require complex analysis, and the design of complex upgrades such as STATCOM devices. Delays related to complex studies are expected to be mitigated by the amendments proposed for the Order 2023 Compliance. Late stage queue withdrawal of Interconnection Requests have also contributed to delays due to the need to undertake restudies; the amendments proposed for the Order 2023 Compliance are also expected to mitigate this issue.

The details of studies completed during Q2 2024 follow in Section 2 of this report.²

² On November 19, 2020, the ISO initiated a Cluster Enabling Transmission Upgrade Regional Planning Study ("CRPS") – known as the Cape Cod Resource Integration Study ("CCRIS") pursuant to Section 4.2.1 of Schedule 22, Section 1.5.3.1 of Schedule 23, and Section 4.2.1 of Schedule 25 of Section II of the Tariff. The queue currently contains several Interconnection Requests for generation projects that will require common new transmission infrastructure to interconnect in that area of the system. In the CRPS, the ISO identified QP806, QP828, QP829, QP830, and QP922 as eligible to participate in the cluster. While QP806 and QP829, which was backfilled with QP1109 and QP1154 when QP829, QP830 and QP922 withdrew, were able to move forward with the associated Cluster System Impact Study, the ISO initiated a second CCRIS to address the remaining eligible projects.

Additional projects that proposed to interconnect in the Cape Cod Area, were included in the second CCRIS to identify additional Cluster Enabling Transmission Upgrades and associated system upgrades to enable the possible interconnection of additional resources proposed in the Interconnection Requests identified as cluster-eligible under the Interconnection Procedures. QP830, QP922, QP1059, QP1109, QP1142, QP1154 and QP1225 were identified to be eligible to participate in the Second CCRIS. QP829, QP830 and QP922 withdrew in May 2022. Subsequently several other projects that had been identified as cluster-eligible in the Second CCRIS withdrew from the ISO interconnection queue. As a result of these withdrawals, only one relevant project (Queue Position 1225) remains in the interconnection queue. As a result, on January 6, 2023, the ISO announced that it was terminating the Second CCRIS in accordance with Section 15.3 of Attachment K of the ISO Open Access Transmission Tariff (OATT) and QP1225 will be studied serially in accordance with the Large Generator Interconnection Procedures in Schedule 22 of the OATT. QP1225 will be studied, in queue order, after the first Cape Cod CSIS.



Section 2

Completed Individual Reports for Delayed Interconnection Studies

This Section 2 describes the Interconnection Study processing times for each completed study that exceeded the best efforts completion deadline during the quarter.

2.1 Queue Position No. 1374

Study Type	Feasibility Study
Unit Type	Battery Storage
Net MW	226
Point of Interconnection	Eversource 115 kV C196 Line
County, State	Merrimack, NH
Date of Study Agreement Execution by the Interconnection Customer	06/07/2023
Date of Study Completion	307
Number of Days to Complete Study	04/09/2024

2.1.1 Timeline Between Study Agreement Execution and Receipt of Data and Deposit from the Interconnection Customer

The deposit was received on 06/05/2023 and the data was received on 06/08/2023.

2.1.2 Timeline for Review and Correction of Interconnection Customer Data

There were no issues with the Interconnection Customer data.

2.1.3 Timeline In Which Study Did Not Commence Until Resolution of Higher Queue Positions (Backlog)

The Interconnection Request for this project is not dependent on the Interconnection Studies for the higher-queued requests.

2.1.4 Timeline for Study Conduct

The Feasibility Study was completed approximately 225 days after the start of the study.

2.1.5 Timeline for the Collection of Additional Data from the Interconnection Customer

No additional data was requested from the Interconnection Customer.

2.1.6 Timeline for the Collection of Study Data from the Interconnecting Transmission Owner

No data was requested from the Interconnecting Transmission Owner.

2.1.7 Timeline for Preparation of Cost Estimates by the Interconnecting Transmission Owner

Cost estimates were requested on 01/23/2024 and were provided on 03/29/2024.

2.2 Queue Position No. 1245

Study Type	System Impact Study
Unit Type	Solar
Net MW	150
Point of Interconnection	Eversource 345 kV 3419 Line
County, State	Hartford, CT
Date of Study Agreement Execution by the Interconnection Customer	03/28/2023
Date of Study Completion	05/29/2024
Number of Days to Complete Study	428

2.2.1 Timeline Between Study Agreement Execution and Receipt of Data and Deposit from the Interconnection Customer

The deposit was received on 04/21/2023 and the data was received on 04/19/2023.

2.2.2 Timeline for Review and Correction of Interconnection Customer Data

There were no issues with the Interconnection Customer data.

2.2.3 Timeline In Which Study Did Not Commence Until Resolution of Higher Queue Positions (Backlog)

The Interconnection Request for this project is dependent on the Interconnection Studies for the following higher-queued requests: QP1192 and QP1193.

2.2.4 Timeline for Study Conduct

The System Impact Study was completed approximately 380 days after the start of the study.

2.2.5 Timeline for the Collection of Additional Data from the Interconnection Customer

No additional data was requested from the Interconnection Customer.

2.2.6 Timeline for the Collection of Study Data from the Interconnecting Transmission Owner

No data was requested from the Interconnecting Transmission Owner.

2.2.7 Timeline for Preparation of Cost Estimates by the Interconnecting Transmission Owner

Cost estimates were requested on 02/23/2024 and were provided on 05/21/2024.

2.3 Queue Position No. 1320

Study Type	System Impact Study
Unit Type	Battery Storage
Net MW	217.25
Point of Interconnection	National Grid 115 KV Line R144
County, State	Worcester, MA
Date of Study Agreement Execution by the Interconnection Customer	01/20/2023
Date of Study Completion	05/07/2024
Number of Days to Complete Study	473

2.3.1 Timeline Between Study Agreement Execution and Receipt of Data and Deposit from the Interconnection Customer

The deposit was received on 01/09/2023 and the data was received on 01/20/2023.

2.3.2 Timeline for Review and Correction of Interconnection Customer Data

There were no issues with the Interconnection Customer data.

2.3.3 Timeline In Which Study Did Not Commence Until Resolution of Higher Queue Positions (Backlog)

The Interconnection Request for this project is dependent on the Interconnection Studies for the following higher-queued requests: QP944, QP1116, QP1238, QP1292, and QP1298.

2.3.4 Timeline for Study Conduct

The System Impact Study was completed approximately 327 days after the start of the study.

2.3.5 Timeline for the Collection of Additional Data from the Interconnection Customer

No additional data was requested from the Interconnection Customer.

2.3.6 Timeline for the Collection of Study Data from the Interconnecting Transmission Owner

No data was requested from the Interconnecting Transmission Owner.

2.3.7 Timeline for Preparation of Cost Estimates by the Interconnecting Transmission Owner

Cost estimates were requested on 03/04/2024 and were provided on 03/18/2024 by the Interconnecting Transmission Owner and on 04/05/2024 and 04/25/2024 by the Affected Transmission Owners.

2.4 Queue Position No. 1338

Study Type	System Impact Study
Unit Type	Battery Storage
Net MW	275.06
Point of Interconnection	Eversource 345 kV Agawam to Ludlow Line
County, State	Hampden, MA
Date of Study Agreement Execution by the Interconnection Customer	02/06/2023
Date of Study Completion	06/20/2024
Number of Days to Complete Study	500

2.4.1 Timeline Between Study Agreement Execution and Receipt of Data and Deposit from the Interconnection Customer

The deposit was received on 03/14/2023 and the data was received on 03/03/2023.

2.4.2 Timeline for Review and Correction of Interconnection Customer Data

There were no issues with the Interconnection Customer data.

2.4.3 Timeline In Which Study Did Not Commence Until Resolution of Higher Queue Positions (Backlog)

The Interconnection Request for this project is dependent on the Interconnection Studies for the following higher-queued requests: QP1117, QP1192, QP1245, and QP1272.

2.4.4 Timeline for Study Conduct

The System Impact Study was completed approximately 320 days after the start of the study.

2.4.5 Timeline for the Collection of Additional Data from the Interconnection Customer

No additional data was requested from the Interconnection Customer.

2.4.6 Timeline for the Collection of Study Data from the Interconnecting Transmission Owner

No data was requested from the Interconnecting Transmission Owner.

2.4.7 Timeline for Preparation of Cost Estimates by the Interconnecting Transmission Owner

Cost estimates were requested on 03/04/2024 and were provided on 04/24/2024.

Section 3

Interconnection Studies Not Yet Completed Due to Delays

CONFIDENTIAL INFORMATION REDACTED

Section 4

Steps to Remedy Issues and Prevent Future Delays

This Section describes the steps that are being taken to remedy issues and prevent future delays.

4.1 Transition of Standard Feasibility Study Scope

In a concurrent filing to the ISO's Order No. 845 compliance filing,³ the ISO proposed to modify the standard scope of the Feasibility Study to consist of the following:

The Interconnection Feasibility Study will consist of a limited power flow, including thermal analysis and voltage analysis, and short circuit analysis. The Interconnection Feasibility Study report will provide (i) the study findings; and (ii) a preliminary description of a non-binding good faith order of magnitude estimated cost of (unless the Interconnection Customer waives such cost estimate) and the time to construct the Interconnection Facilities and Network Upgrades necessary to interconnect the Large Generating Facility as identified within the scope of the analysis performed as part of the study.

Feasibility Studies that commenced after the Commission's acceptance of that modification are proceeding under the new narrower scope. The ISO anticipated that as a result more Feasibility Studies would be completed within the best-efforts timeline, but would also be subject to more uncertainty given that studies for higher Queue Positions may not yet be fully resolved. Despite these changes, however, issues with Interconnection Customer data and the time needed for Interconnecting Transmission Owner cost estimates continue to drive Feasibility Study delays.

Following the ISO's implementation of the first-ready, first-served Cluster Study Process required by Order No. 2023, the Feasibility Study will be eliminated from the interconnection process. Projects with an incomplete Feasibility Study will be eligible to enter the Transitional Cluster Study.

4.2 Backlog and Cluster Studies

In many cases, after a System Impact Study has started, it is being completed close to the best efforts timeline specified in the Interconnection Procedures. A primary driver of Interconnection Study timeline exceedance is delay in the commencement of the study due to a backlog of higher Queue Positions. In New England, backlog is locational and driven by external development incentives. For example, on the coast of southeast New England, there continues to be a backlog of Interconnection Requests for multiple offshore wind projects, all of which were submitted at approximately the same time. The Interconnection Requests were submitted for projects that have responded to large state procurement announcements.

The ISO is taking steps to mitigate the impact of these backlogs. In Massachusetts, after evaluating conditions, the ISO initiated its Clustering process. As part of that process, the ISO performed the

³ *ISO New England Inc., et al.*, Revisions to ISO New England Inc. Transmission, Markets and Services Tariff to Modify Timelines and Scope of Interconnection Studies, Docket No. ER19-1952-000 (May 22, 2019) ("Interconnection Studies Timeline Modifications"). *ISO New England Inc., et al.*, 170 FERC ¶ 61,218 (2020) (accepting the Interconnection Studies Timeline Modifications).

first CCRIS to identify the Cluster Enabling Transmission Upgrade and associated system upgrades to enable the possible interconnection of some of the resources proposed in the Interconnection Requests identified as cluster-eligible under the Interconnection Procedures. The result was the formation of the First Cape Cluster initially consisting of QP806 and QP829, and those Interconnection Requests proceeded to be studied as part of the associated CSIS. Because there remained additional projects proposing to interconnect in the Cape Cod Area, the ISO was performing the second CCRIS to identify additional Cluster Enabling Transmission Upgrades and associated system upgrades to enable the possible interconnection of additional resources proposed in the Interconnection Requests identified as cluster-eligible under the Interconnection Procedures. QP830, QP922, QP1059, QP1109, QP1142, QP1154 and QP1225 were identified to be eligible to participate in the Second CCRIS. QP829, QP830 and QP922 withdrew in May 2022. The withdrawal of QP829 triggered the cluster backfilling provisions in the Interconnection Procedures. The ISO was able to backfill the CSIS with QP1109 and QP1154, avoiding cluster collapse. Based on changes to the New England Transmission System, it was determined that QP1059 is no longer cluster eligible because it no longer is expected to share common upgrades with the other projects in the second CCRIS. QP1059 withdrew from the Queue in December 2022.

Additional projects that proposed to interconnect in the Cape Cod Area, were included in the second CCRIS to identify additional Cluster Enabling Transmission Upgrades and associated system upgrades to enable the possible interconnection of additional resources proposed in the Interconnection Requests identified as cluster-eligible under the Interconnection Procedures. Subsequently several other projects that had been identified as cluster-eligible in the Second CCRIS withdrew from the ISO interconnection queue. As a result of these withdrawals, only one relevant project (QP1225) remains in the interconnection queue. As a result on January 6, 2023, the ISO announced that it was terminating the Second CCRIS in accordance with Section 15.3 of Attachment K of the ISO Open Access Transmission Tariff (OATT) and QP1225 will be studied serially in accordance with the Large Generator Interconnection Procedures in Schedule 22 of the OATT. QP1225 will be studied, in queue order, after the first Cape Cod CSIS.

Similarly, in Maine, after evaluating conditions due to projects responding to large state procurement announcements, the ISO initiated the clustering provisions of its Interconnection Procedures. QP1210, QP1211, QP1227, QP1228, QP1230, QP1236, QP1243, QP1256, QP1257, QP1271, QP1295, QP1370, QP1371, QP1375, QP1379 and QP1429 have been identified to be eligible to participate in the Third Maine Resource Integration Study (MERIS). The cluster study process is currently underway.

As a result of Order No. 2023 implementation, all projects without a completed System Impact Study prior to August 30, 2024 will be eligible to enter the Transitional Cluster Study.

4.3 Interconnection Customer Data Issues

The ISO has moved the Interconnection Customer data review earlier in the Interconnection Request process for projects that are delayed due to dependencies on projects with higher-queued requests and resources continue to be expended to review multiple data iterations to ensure that the data is 'study ready' when it is time for the study to commence. This has helped in some cases for studies to be completed more efficiently once they commence. However, the ISO still faces delays when subsequent data problems have emerged during the course of a study and, often, multiple data iterations are necessary to fully address the problems.

Under the Order No. 2023 implementation, all projects will need to comply with the revised data requirements and include an Original Equipment Manufacturer Attestation.

4.4 Interconnecting Transmission Owner Cost Estimate Timeline

The Interconnection Studies Timelines Modifications, contained in Schedule 22 – Large Generator Interconnection Procedures, Section 6.2, changed the cost estimate for the upgrades resulting from the Feasibility Study to “a non-binding good faith order of magnitude estimated cost.”

The ISO continues to work with Interconnecting Transmission Owners to encourage a standardized cost estimate development timeline of 2-4 weeks for all Interconnection Studies. However, the time needed by the Interconnecting Transmission Owners to prepare estimates for both costs and time to construct upgrades and interconnection facilities is being impacted by the number of estimates needed within that same timeframe and the complexity associated with certain projects.

Interconnection Studies for projects with complex Points of Interconnection and/or upgrades will inherently take longer to scope and estimate. Additionally, because of growing numbers of distribution-connected projects in the ISO New England Queue, interconnection evaluations will involve consideration of upgrades to both the transmission and distribution systems. These types of projects, which are increasingly common, result in more complicated estimates and have a longer estimating cycle than a typical project interconnecting in a robust part of the transmission network.

As an effort to accelerate study-cycle time, Interconnecting Transmission Owners are beginning to engage in cost estimation for identified upgrades before the studies are finalized. Commencing cost estimation on expected upgrades prior to their finalization will afford Interconnecting Transmission Owners additional time for scoping and cost estimating, especially with the increasing number of more complicated projects in the queue.

As a result of Order No. 2023 implementation, costs estimates will be due toward the completion of the Cluster Study for all upgrades resulting from the Cluster Study.

4.5 Resources

Throughout Q2 2024, the ISO has continued working to complete studies with reduced personnel. Specifically, project resources were impacted due to jobs being vacated, as well as retirements. The ISO has undertaken efforts to reorganize resources to work on interconnection related tasks for the upcoming implementation of Order 2023.