

Affected System Operator (ASO) Report to Potentially Affected Customers

This is Eversource's biweekly report to customers who have the potential to be included in a future Affected System Operator (ASO) study. In accordance with the MA DPU Orders D.P.U. 19-55-C, D.P.U. 19-55-D, and the issuance of the *DG Guidelines For Interconnection*, these reports will be issued on the first and fifteenth business day of each month. The ASO study underway impacts Eversource's Massachusetts service area in the Greater Boston, Upper Southeastern Massachusetts ("SEMA"), Cape, Springfield and Pittsfield regions and these regions will remain consistent for any future ASO study conducted.

Currently Eversource is in the process of completing its ASO Study announced on October 24, 2019 with the remaining ISO-New England (ISO-NE) Reliability Committee (RC) approvals now expected to occur by the August 2021 RC meeting for the SEMA and Cape areas. The western MA projects were approved at the January 2021 RC meeting and the Greater Boston project was approved at the February 2021 RC meeting.

The completion of the Level 3 SEMA/Cape ASO study in progress has been delayed a few months due to several factors including: cancellation of consulting services for studies due to vendor's unwillingness and inability to agree to confidentiality provisions needed to protect customer's intellectual property and additional study scenarios needed and requested by ISO-NE.

Since the inception of the current ASO study, applications for new projects have continued to come in the queue behind these projects, creating additional saturation on circuits across these same MA sub-regions. Currently there are 122 applications across these regions that have been identified as needing a potential ASO study with 27 in western MA and 95 in eastern MA. This total is a combination of new applications and prior applications that opted out of the ASO study currently underway.

These reports along with general ASO information can be found on the ASO Website: <https://www.eversource.com/content/ema-c/about/about-us/doing-business-with-us/builders-contractors/interconnections/massachusetts/affected-system-operator-studies>

Please direct questions related to the ASO to your respective Account Executive so that they can be circulated to the appropriate party for response, and if applicable, added to the ASO Website's FAQ section for others to review.

1. What additional information is needed to determine if an ASO study is necessary?

Eversource needs to complete the current ASO study underway prior to assigning new projects in queue a transmission study level. Eversource has issued initial ASO Study notifications to potential customers impacted requiring their project be reviewed for study level agreement by ISO-NE for either a Level 0/1 or a Level 3 ASO study. Once project study levels are identified, customers will receive a follow-up verification on study level for their project.

Projects in the Greater Boston area and in western MA have started preliminary individual reviews by the transmission team for technical data completeness. Eversource Transmission presented the first batch of western MA and Greater Boston projects to ISO-NE for study level determinations on March 19th. Eversource is currently working in conjunction with ISO on study level determinations for each project. After these reviews are complete and there is concurrence on study level for each project, individual projects will be notified of their study level by their Account Executive. Projects in the SEMA and Cape areas are targeted to begin screening in the September 2021 timeframe.

If a project is initially assigned a Level 0/1 study, it is possible that during the Level 0/1 study process, that some projects may be identified as requiring further Level 3 studies and those projects (if any) will add to the final scope of the Level 3 study conducted.

2. When will the EDC know whether an ASO study is required?

As noted above, the ASO studies still underway need to be completed with RC approval before new projects' study levels can be proposed and finalized with ISO-NE. Pending a project's location, Greater Boston and western MA projects will be proceeding in a next round of ASO studies and projects in SEMA and the Cape will know if an ASO is required by September 2021. Eversource has added the process diagram for ASO Impact Screens, that it worked to develop with the other MA Electric Distribution Companies (EDCs), to its ASO website as an additional customer reference.

3. What are the potential impacts on interconnection timelines and costs?

At this time for planning purposes, Eversource anticipates Level 0/1 studies to cost approximately \$60,000 (or about \$500/MW) and take around 4 months from study commencement. Level 3 studies will begin once Level 0/1 studies are complete so that the applicable transmission and distribution upgrades are known and can be modeled in a Level 3 study. The Level 3 study per ISO-NE PP5-3¹ typically takes up to 12 months, depending on complexity and scope.

Exact costs for Level 3 studies are unknown at this time due to variables such as the results of the Level 0/1 studies, potential changes in ISO-NE study requirements, as well as customers who may choose to opt out of the study, thereby increasing the cost to the remaining applicants. However, for planning purposes costs may range from \$5,000 to \$15,000 per MW.

4. Are there any proposed resolutions that the EDC is exploring to enable some affected DG applicants to proceed with the interconnection process prior to completion of the ASO study?

Eversource is continuing to proceed with distribution-level studies, including distribution Group Studies authorized by D.P.U. 17-164, while ASO transmission-level studies are getting ready to be conducted. This is being done to reduce the distribution-level study wait time and increase value to customers.

¹ https://www.iso-ne.com/static-assets/documents/rules_proceeds/isone_plan/pp05_3/pp5_3_final.pdf

5. How does the EDC plan to address the situation and minimize delays to interconnection timelines of potentially affected DG applicants?

There are distribution study efficiencies that Eversource has implemented to minimize study timelines for highly congested areas warranting the formation of a Group Study. With distribution Group Studies, there will also be an associated group solution to support cost sharing potential amongst customers. For any future transmission studies, Eversource will be able to utilize load models and DER models aggregated by bus that have been set up for the ASO underway and anticipates the ramp up time for any future ASO study to be shorter, as some preparation work has already been completed.

Eversource has also created technical guidance documentation for customers to utilize to proactively gather modeling data needed for an ASO study. This documentation is available on the ASO website. It is strongly recommended that customers use this documentation to work with their inverter manufacturers and other technical stakeholders early in the process (once an ASO study level is known) to obtain the necessary comprehensive and accurate technical files, all customers will see a benefit to schedule improvement and study commencement.