

ASO Study Biweekly Report to Impacted Customers

This is Eversource's fifth biweekly report to customers impacted by the five Affected System Operator (ASO) studies announced on October 24, 2019. The reports were emailed to customers and posted to the website on 11/21/2019, 12/5/2019, 12/19/2019 and 1/2/2020. Please note the update issued on 12/5/19 related to the ASO kickoff meeting.

As a follow up to the Dec. 12 ASO Study kickoff meeting, Level 0/1 ASO study customers were sent an email on Dec. 18 asking that they opt in or opt out of the study by January 6th. Most customers have chosen to opt-in to the Level 0/1 study with only 7 customers opting out.

Payments from all customers who have opted in must be provided by this Monday (January 20th). Account Executives have been following up via phone and email over the last few days reminding customers whose payments haven't been received yet of this upcoming deadline. To date, approximately 30% of the Level 0/1 funds have been received. An updated schedule for the Level 0/1 studies can be found under item #2 below.

In the Dec. 12 Kickoff Meeting, a listing of what would be required by Eversource for a Level 3 Study was provided to customers. At the meeting it was suggested that Customers start gathering this info as early as possible. In addition, earlier today, Level 3 customers received a checklist of technical data that they should begin gathering in preparation to provide to Eversource prior to the study commencing in late March 2020. The data customers provide for the study will formally lock in their project's scope.

ASO information and materials 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>

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

Eversource issued initial ASO Study notifications on Nov. 13 to all applicants that were identified as requiring a Level 0/1 or a Level 3 ASO study. Eversource has increased its communications with ISO-NE from monthly to daily to solidify project study level determinations and groupings.

To date, there has been no change to the need for these five ASO transmission study groups as defined.

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

As noted above, ASO studies will be required and five ASO transmission study groups have been developed. The ASO studies have not yet commenced. The Level 0/1 studies will need to be completed before the Level 3 studies can begin. An overview summary of the next steps and overall process is described below with status updates for reference:

- Eversource held an ASO Study Customer Kickoff meeting on Dec. 12 at Eversource's Westwood, Massachusetts office.

- Customers identified for the Level 0/1 studies will review the study cost provided by Eversource.
- Customers identified for the Level 0/1 studies will opt in or opt out within the timeframe communicated to them (January 6); if the customer opts in they will need to formalize this with the study payment.
- Customers identified for the Level 0/1 studies that opt in must pay for the studies by January 20, 2020.
- Eversource will request additional technical information and models from customers participating in Level 0/1 studies, if needed. For customers in a Level 3 study, Eversource has provided a Level 3 Technical checklist on January 16th to support customer data and information gathering. This technical checklist list has also been posted to the ASO website.
- Customers will provide information as requested.

For Level 0/1 studies, the studies can commence once all impacted customers opt in or out and complete payment. All customers have made a decision to opt-in or opt out at this time, with most payments still outstanding. Eversource aims to follow this milestone schedule for conducting the Level 0/1 studies:

Level 0/1 Kickoff Meeting With ISO-NE	1/21/2020
Preliminary Results Shared With ISO-NE For Review & Concurrence	2/17/2020
Update to ASO Customers on preliminary findings and any potential Level 3 projects	2/27/2020

For Level 3 studies, the steps above need to be completed for all customers in the three eastern MA ASO study areas and the two western MA ASO study areas; at that time both Level 3 studies can commence. Exact dates for Level 3 studies to commence are not known at this time, Eversource is aiming to receive all customer requested technical data back by March 16, 2020 so the scopes of the projects will be locked and ready for the Level 3 ASO study to commence thereafter.

Level 3 studies cannot commence prior to the completion of Level 0/1 because:

- Level 0/1 system upgrades, if identified, are required to be modeled in the Level 3 study
- Based on the Level 0/1 results, Eversource may identify projects that require further Level 3 studies and those projects (if any) will add to the final scope of the Level 3 study conducted
- The completion of the Level 0/1 study must be completed prior to Level 3 studies commencing due to ISO-NE requirements to sequentially model the projects based on their PPA approval

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 three 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 typically takes about nine months from commencement.

Exact costs for Level 3 studies are unknown at this time due to variables such as 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, with the Greater Boston and Springfield areas at the top of this range.

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 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.

Projects that had interconnection service agreements (ISAs) prior to the ASO study announcement on Oct. 24, 2019 that required transmission studies will continue with their separate transmission studies outside of these five ASO group studies. Eversource is also continuing to perform distribution group studies where the same customer has multiple projects in sequence on a single circuit.

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

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