

Eversource 2021 ASO Study Customer Kickoff Meeting

Western Massachusetts & Greater Boston Areas

August 6, 2021

Agenda

- Introductions
- Study types and definitions
- Study level determination
- Overview of ASO areas
- Level 3 technical data
- Process and next steps
- Q&A

ASO Overview – Study Types

- Level 0 - [No Studies](#)
 - Collection and validation of PSCAD models for each project will be required for all projects.
- Level 0 - [Transfer Limit Analysis](#)
 - Conduct transfer limit assessment to ensure no degradation of ISO-NE Interface Limits. If adverse impacts found, a Level 3 study will be required.
 - Level 0 screenings need to be completed before Level 3 studies start
 - Some Level 0 may require more detailed Level 3 studies, pending findings in Level 0 analysis
 - Collection and validation of PSCAD models for each project will be required for all projects
- Level 3 studies
 - Conduct thermal and voltage steady state, short circuit, stability analysis
 - Electromagnetic Transient Study using PSCAD will be required
 - Detailed technical data will be requested from projects and is required to start studies

ASO Overview – Study Types (continued)

- Project Sizes
 - > 1 MW and < 5 MW = [Level 0 - No Study](#) for substation or group of substations less than 5 MW
 - > 1 MW and < 5 MW = [Level 0 - Transfer Limit Analysis](#) for substation or group of substations less than 20 MW
 - > 1 MW and < 5 MW = Level 3 ASO Study for substation with 20 MW
 - ≥ 5 MW = Level 3 ASO Study
 - ≤ 1 MW = No ASO analysis/study (provided not co-located)

Notes: Distribution studies/progress is separate from content in this presentation

Study Level Spreadsheet

2021 Potential ASO

NOTICES AND INFORMATION

- [2021 ASO Notification](#)

REPORTS TO IMPACTED CUSTOMERS

Every two weeks prior to a study commencing, Eversource will report out to impacted customers.

- [August 2, 2021](#)
- [July 15, 2021](#)
- [July 1, 2021](#)
- [June 15, 2021](#)
- [June 1, 2021](#)
- [May 17, 2021](#)
- [May 3, 2021](#)
- [April 15, 2021](#)
- [April 1, 2021](#)
- [March 15, 2021](#)
- [March 1, 2021](#)
- [February 16, 2021](#)
- [February 1, 2021](#)
- [January 15, 2021](#)

- Eversource Proposed Study Level Determinations & ISO-NE Comments and Study Level Determinations - [Greater Boston Area](#) | [Western Mass Area](#)

- [Eversource's ASO Website](#)

- Greater Boston study level determinations
- Western MA study level determinations

ASO Overview – Western Massachusetts

Station Capacity (MW)	Level 0 - No Study	Level 0 - Transfer Limit Analysis	Level 3 Transmission Study	Grand Total
PITTSFIELD AREA	0	0	58	58
Berkshire 18C			8	8
Cumberland 22B			9	9
Doreen 19A			5	5
French King 21B			10	10
Montague 21C			12	12
Oswald			2	2
Pleasant 16B			4	4
Podick 18G			8	8
SPRINGFIELD AREA	2	19	17	37
Blandford 19J			17	17
East Springfield	2			2
Southwick		14		14
Southwick 29A		5		5
Grand Total	2	19	75	95

Number of Applications	Level 0 -No Study	Level 0 - Transfer Limit Analysis	Level 3 Transmission Study	Grand Total
PITTSFIELD AREA			20	20
Berkshire 18C			2	2
Cumberland 22B			3	3
Doreen 19A			1	1
French King 21B			5	5
Montague 21C			5	5
Oswald			1	1
Pleasant 16B			1	1
Podick 18G			2	2
SPRINGFIELD AREA	1	5	4	10
Blandford 19J			4	4
East Springfield	1			1
Southwick		4		4
Southwick 29A		1		1
Grand Total	1	5	24	30

- 12 substations impacted
- Level 0 - No Study
 - 2MW
 - 1 application
- Level 0 – Transfer Limit Analysis
 - 19 MW
 - 5 applications
- Level 3 – Transmission Study
 - 75 MW
 - 24 applications

ASO Overview – Greater Boston

Station Capacity (MW)	Level 0 - No Study	Level 0 - Transfer Limit Analysis	Level 3 Transmission Study	Grand Total	Number of Application Station Capacity (MW)	Level 0 - No Study	Level 0 - Transfer Limit Analysis	Level 3 Transmission Study	Grand Total
Holliston 130			10	10	Holliston 130			2	2
Hopkinton 126			9	9	Hopkinton 126			2	2
Maynard 416		10	19	29	Maynard 416		2	16	18
Medway 65			22	22	Medway 65			5	5
Newton Highlands 292	2			2	Newton Highlands 292	1			1
No. Lexington 319	3			3	No. Lexington 319	1			1
No. Woburn 375	2			2	No. Woburn 375	1			1
Roslindale 13 / West Roxbury 313	1			1	Roslindale 13 / West Roxbury 313	1			1
Sherborn 274		2		2	Sherborn 274		7		7
Grand Total	9	12	61	81	Grand Total	4	9	25	38

- 10 substations impacted
- Level 0 - No Study
 - 9 MW
 - 4 applications
- Level 0 – Transfer Limit Analysis
 - 12 MW
 - 9 applications
- Level 3 – Transmission Study
 - 61 MW
 - 25 applications

Technical Data Required

- Data required to support Level 0 PPA approval
 - Fully functioning PSCAD model that meets the PSCAD model requirements
 - Inverter model information (e.g., BESS description if applicable, frequency and voltage relay trip settings)
 - Stamped one-line diagram including inverters
 - Project market information (e.g., In-service date, whether in ISO-NE market per OP-14 generator definition)
- Data required for Level 3 study (**in addition to all of above**)
 - Detailed project technical data including the collector system and step-up transformer information.
 - Project specific stability model in PSS/E standard library format (for projects $\geq 5\text{MW}$).
- **Please read and follow the Technical Data Request Requirements.**

[EVERSOURCE MODEL AND TECHNICAL DATA REQUEST LIST FOR AFFECTED SYSTEM OPERATOR \(ASO\) TRANSMISSION STUDIES](#)

Process and Next Steps

Date	Milestone
Next Week	PowerClerk email to customers requesting: <ol style="list-style-type: none">1. To opt in or out of the study2. Make payment3. Upload modeling files into the portal This requires action within 10 Business Days (BDs) upon receipt.
10 BDs after receipt of email (August)	Customers opt in/out, provide payment and upload technical data
10 BDs after submittal (September)	<u>Cure Period for Technical Data</u> timeframe to get project's modeling rectified and update any missed requirements
End of Cure Period (September)	<u>Working Model Deadline</u> customer data models must be fully functioning, otherwise project will not be able to participate in this ASO study
October 2021	Eversource holds kickoff meeting with ISO-NE
October 2021	Level 0 studies commence <ol style="list-style-type: none">1. Level 0 No Study Needed, 1-2 months duration2. Level 0 Transfer Limit Analysis, 3-4 months duration
February 2022	Level 3 studies commence

Next Steps

- Review technical data requirements sheet on the ASO website for modeling requirements, in preparation for uploading
- Look for an email from the PowerClerk portal requesting that you opt in or out of the study, make payment and submit data with 10 business days upon receipt
 - No response will indicate an “opt out”
- Stay up to date with study schedule via biweekly reports, monthly reports and ad-hoc updates

OPEN Q&A