EVERSOURCE

LOCAL SYSTEM PLAN 2020

Planning Advisory Committee Meeting

October 21, 2020

Update to Eversource LSP for 2020

- The Eversource Local System Plan (LSP) has been revised to incorporate the latest proposed changes to the Eversource Local transmission system for Connecticut, Massachusetts, and New Hampshire.
- The LSP Project List is a cumulative listing of proposed transmission solutions intended to meet local needs.
- This LSP-2020 supersedes Eversource's LSP-2019.

Purpose of the Local System Plan

Per Attachment K – Local, the LSP:

- Describes projected improvements to Non-PTF (Non-Pool Transmission Facilities) that are needed to maintain system reliability
- Reflects:
  - Local Needs Assessments
  - Public Policy Requirements (State, Federal, or Local)
  - Corresponding transmission system plans and future studies
  - Maps indicating project locations
- Identifies:
  - Local Planning Process
  - Criteria, Data, and Assumptions used in the Local System Planning Process

LSP Communication

- ISO-NE posts the materials on the PAC web page prior to the meeting.
- PAC, Transmission Customers, and other Stakeholders have 30 days after the meeting to provide any written comments for consideration by Eversource.
  - Comments to be directed to

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Eversource

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LSP Communication (cont.)

- Each PTO (Participating Transmission Owner) is individually responsible for publicly posting and updating the status of its respective LSP and transmission project list on their website in a format similar to the ISO-NE Regional System Plan (RSP) Project List .

- Eversource's project lists are located at:

  https://www.eversource.com/Content/ct-c/about/major-projects-infrastructure/transmission-rates-tariffs-interconnections/ferc-order-890-posting-and-676-e-requirements

Local System Planning Process

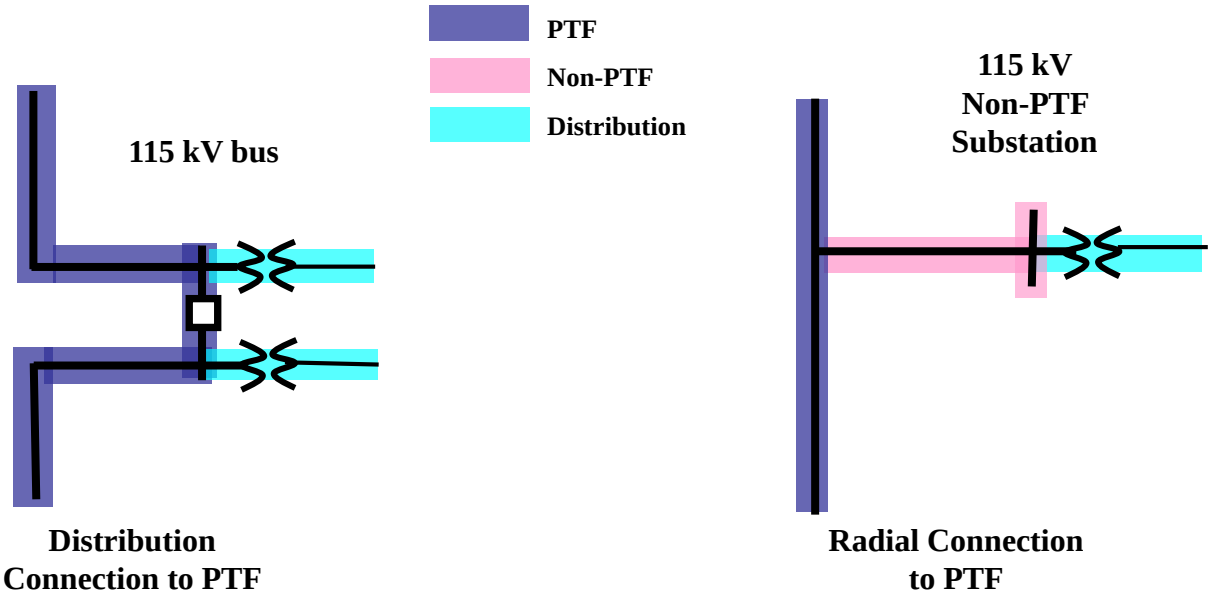
- Local studies can result from:
  - Load growth
  - Area reliability assessments
  - Point of delivery requests from customers
  - Public Policy Requirements (State, Federal, or Local)
  - Other efforts that may impact local facilities (*e.g.*, elective transmission upgrades, reliability transmission upgrades, generator interconnections, short circuit or temporary overvoltage studies)
- The Local System Plan:
  - Summarizes the needs
  - Summarizes the selection of preferred solution
  - Includes Local Projects that are related to projects listed in the RSP

Criteria and Assumptions

- All Eversource local transmission facilities (69 kV and above) are part of the interconnected Eversource system and shall be designed in accordance with criteria described in the Eversource transmission reliability guidelines.
- Eversource complies with NERC, NPCC, and ISO-NE planning criteria.
- The annual ISO-NE CELT Report forecasts for the New England area (90/10) load, with appropriate municipal customer forecasts and/or sub-area forecasts, are used.
  - When local area loads peak at times that are different from the ISO-NE System Peak (basis of CELT Report forecast loads), local substation peak loads may be substituted for the ISO-NE CELT forecast loads.
- Studies use the ISO-NE provided base cases and the ISO-NE short circuit database.

This Local System Plan includes the following types of Transmission System connections

(illustrative examples)



- Eversource has distribution connections and radial transmission connections.

NH, MA, and CT Projects in Regional System Plan

Large-scale reliability assessments may ultimately have Local ramifications. Assessment studies are described in the ISO-NE RSP. Several longer-term assessments have been completed, and others are being conducted. Information about studies being conducted that may affect the local system can be found in the ISO-NE 2019 RSP:

- New Hampshire, RSP sections 5.4 and 5.5.7
- Connecticut, RSP sections 5.4, 5.5.1, 5.5.2, and 5.5.8
- Eastern Massachusetts, RSP sections 5.5.4, and 5.5.5
- Western Massachusetts, RSP sections 5.4, 5.5.3

Public Policy Requirements

- On May 1, 2020, NESCOE communicated its decision not to request that ISO-NE initiate a Public Policy Transmission Study in the current planning cycle and determined that, at this time, there are no State or Federal Public Policy Requirements "driving transmission needs relating to the New England Transmission System."
- On June 17, 2020, ISO-NE communicated that it reviewed and agreed with NESCOE's position. ISO-NE also communicated that it was not aware of any local Public Policy Requirements driving the need for transmission and thus will not be conducting a Public Policy Transmission Study.
- On July 15, 2020, Eversource communicated that it has reviewed ISO-NE's and NESCOE's responses and determined that there are no Public Policy Requirements identified in the ISO-NE Public Policy Transmission Upgrade process that are potentially driving transmission needs on Eversource's Non-PTF systems.

LSP Project List

- The LSP Project List is a cumulative listing of proposed transmission solutions intended to meet LSP needs.

- The LSP Project List includes the status of each Local Pool Transmission Facility (PTF) project and Non-Pool Transmission Facility (Non-PTF) project. Costs are provided for Proposed, Planned, Under Construction, and In Service categories of projects, using the same guidelines as the various stages of RSP projects. Some projects may have costs yet to be determined.

  - **Concept** - Project is under consideration as a possible solution to a need, for which there is little to no analysis available.

  - **Proposed** – Eversource has determined that the project is an appropriate solution to the need, but a Proposed Plan Application (PPA) is not yet filed.

  - **Planned** - PPA has been filed and approved by ISO-NE.

  - **Under Construction** - Final engineering and internal approvals completed and project being implemented.

  - **In Service** - Project completed.

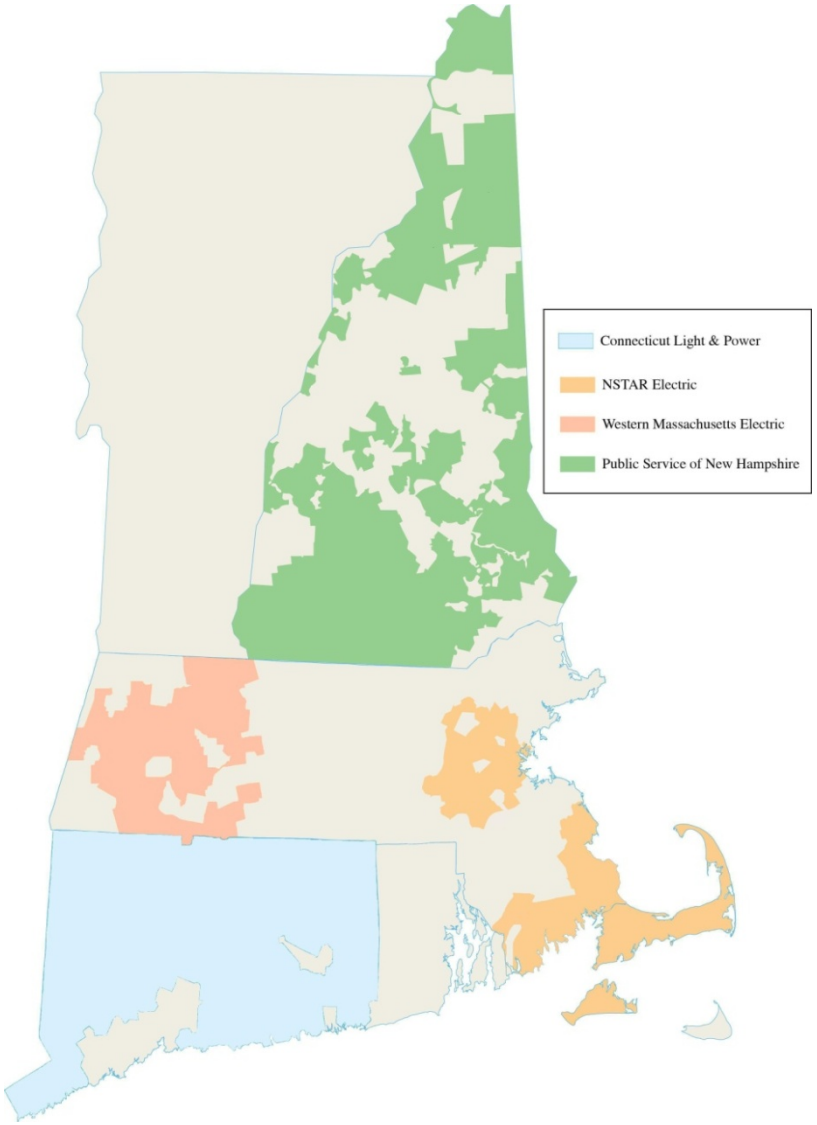
Eversource Service Territories

Eversource operates in three states:

Connecticut

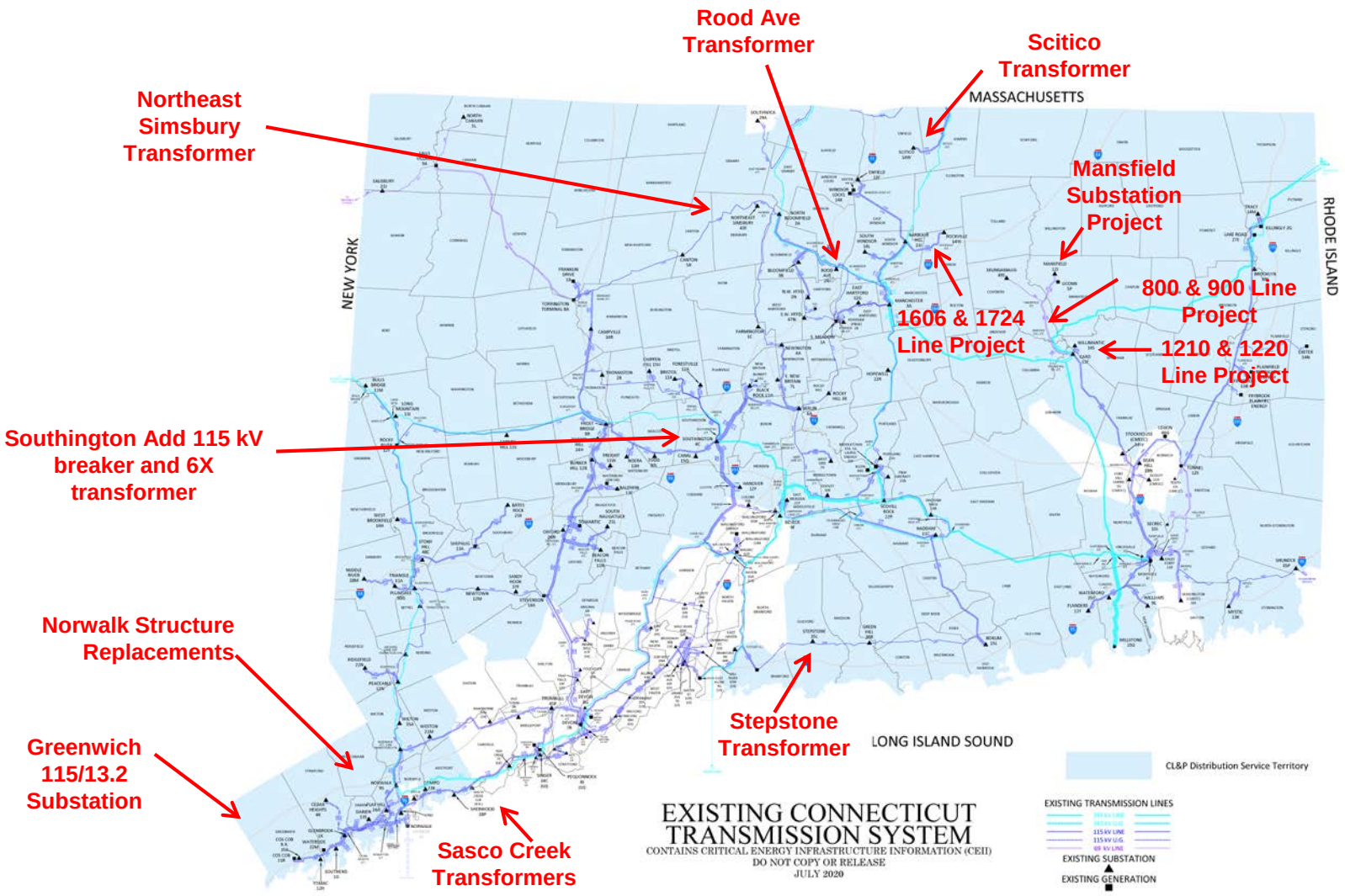
Massachusetts

New Hampshire



Connecticut Projects

Proposed, Planned, Under Construction, and In-Service projects only



Local System Plan – Connecticut

Status of project descriptors in blue have changed from previous LSP or are newly listed

Eversource Local Area Projects - Connecticut					
Need	**Projected ISD Month/Year (Cost >$5M dollars)**	**Project Area**	**Project**	**Status**	**Solution**
Local Reliability	Dec-19	Southwest	Southington Substation - Add a 115-kV circuit breaker with Southington 6X Distribution Transformer	**In-Service**	Add a 115 kV circuit breaker with the Southington 6X distribution transformer at the Southington substation.
Local Reliability	**Feb-20**	Eastern	Stepstone Substation - Transformer addition (Guilford)	**In-Service**	Install a second 115/23-kV, 62.5 MVA, transformer to increase capacity and improve reliability.
Local Reliability	**Mar-20**	Springfield (MA)	Scitico Substation - Transformer addition (Enfield)	**In-Service**	Add a third 115/23-kV, 62.5 MVA transformer and one 115-kV circuit breaker.
Local Reliability	**Oct-20 $90M**	Norwalk/ Stamford	Greenwich 115/13.2-kV Substation Project (Greenwich)	**In-Service**	Add a new 115/13.2-kV bulk power substation in the Greenwich area with two 62.5 MVA transformers and one circuit breaker to increase capacity and improve reliability. Also, two new 115-kV cable circuits from Cos Cob to Greenwich.
Local Reliability	**Dec-20**	Greater Hartford	Northeast Simsbury Substation - Transformer addition (Simsbury)	Under Construction	Install a 2nd 115/23-kV, 62.5 MVA, transformer to increase capacity and improve reliability.
Asset Condition	**Dec-20 $7.8M**	**Eastern**	**800 and 900 69 kV Line Structure Replacements**	**Under Construction**	**Replace existing structures due to Asset Condition.**
Asset Condition	**Dec-20 $9.1M**	**Greater Hartford**	**1606 and 1724 115 kV Line Structure Replacements**	**Under Construction**	**Replace existing structures due to Asset Condition.**

Local System Plan – Connecticut (continued)

Status of project descriptors in blue have changed from previous LSP or are newly listed

Eversource Local Area Projects - Connecticut					
Need	Projected ISD Month/Year (Cost >$5M dollars)	Project Area	Project	Status	Solution
Local Reliability	May-21	Southwest	Sasco Creek Substation - Metro North to replace transformers (Westport)	Proposed	Replacement of aging 1X and 2X 115/27.6-kV transformers.
Local Reliability	Dec-21	Greater Hartford	Newington Substation - Transformer replacements (Newington)	Concept	Replacement of aging 1X and 3X 115/23-kV, 45 MVA transformers with two new 115/23-kV, 62.5 MVA transformers.
Local Reliability	Dec-21	Northwest	Franklin Drive Substation - Transformer replacements (Torrington)	Concept	Replacement of aging 4X and 5X 115/13.2-kV, 25 MVA transformers with two new 115/13.2-kV, 62.5 MVA transformers.
Asset Condition/ Local Reliability	Dec-21	Eastern	115-kV Line 500 Copper Retirement	Concept	Replace deteriorating copper materials with ACSS conductor and OPGW shield wire
Asset Condition/ Local Reliability	Dec-21	Greater Hartford	115-kV Line 1724/ 1606 Copper Retirement	Concept	Replace deteriorating copper materials with ACSS conductor and OPGW shield wire
Local Reliability	2022	Greater Hartford	Rood Avenue Substation - Transformer addition (Windsor)	Planned	Add a second 115/23-kV, 62.5 MVA, transformer to increase capacity and improve reliability.
Asset Condition/ Local Reliability	2022	Greater Hartford	115-kV Line 1820/1830 Copper Conductor Replacement/ rebuild	Concept	Replace deteriorating structures and obsolete conductor
Local Reliability	2022	Southwest	Sandy Hook Substation - Transformer addition (Newtown)	Concept	Add a second 115/23-kV transformer 62.5 MVA to the substation to increase capacity and improve reliability.
Local Reliability	2022	Northwest	Carmel Hill Substation - Transformer addition. (Woodbury)	Concept	Add a second 115/23-kV transformer 62.5 MVA to the substation to increase capacity and improve reliability.

Local System Plan – Connecticut
(continued)

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Eversource Local Area Projects - Connecticut					
Need	Projected ISD Month/Year (Cost >$5M dollars)	Project Area	Project	Status	Solution
Local Reliability	2022	Northwest	Falls Village Substation - Transformer replacement (Canaan)	Concept	Replacement of aging 69/13.2 kV transformer with a new 62.5 MVA transformer.
Asset Condition/Local Reliability	2022	Greater Hartford	115-kV Lines 1100/1200/1300 - OPGW	Concept	Replace deteriorating copper and alumoweld shield wire with OPGW
Local Reliability	2023	Eastern	Mansfield Substation - Transformer additions and removal (Mansfield)	Planned	Install two 115/23-kV, 62.5 MVA transformers and eliminate the single 27.6-kV transformer.
Local Reliability	2023	Southwest	Norwalk -CDOT replace structures at Norwalk River crossing (Norwalk)	Proposed	Replace 115 kV structures at Norwalk River crossing
Asset Condition	2023	Eastern	1210 and 1220 115 kV Line Structure Replacements	Proposed	Replace existing structures due to Asset Condition.
Local Reliability	2023	Eastern	Bokum Substation - Transformer replacements (Old Saybrook)	Concept	Replacement of aging 115/27.6 kV transformers with new 62.5 MVA transformers.
Local Reliability	2023	Eastern	Southington Substation - Transformer replacement (Southington)	Concept	Add a 115/13.8 kV 62.5 MVA transformer to increase capacity and improve reliability.
Asset Condition/Local Reliability	2023	Southwest	115-kV Line 1690 Copper Retirement	Concept	Replace deteriorating copper materials with ACSS conductor and OPGW shield wire

Local System Plan – Connecticut
(continued)

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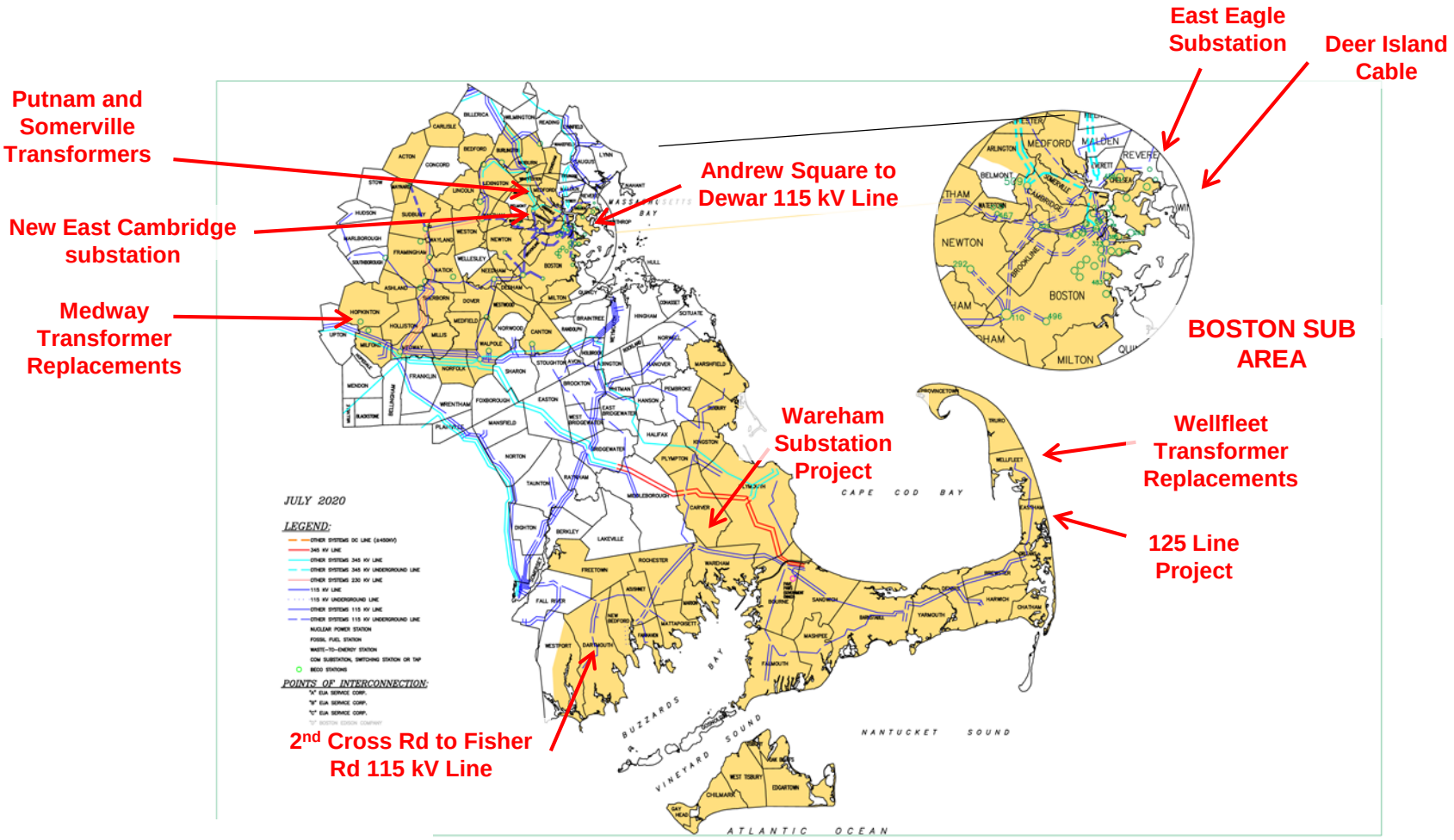
Eversource Local Area Projects - Connecticut					
Need	**Projected ISD Month/Year (Cost >$5M dollars)**	**Project Area**	**Project**	**Status**	**Solution**
Local Reliability	2024	Northwest	Salisbury Substation - Transformer replacement (Salisbury)	Concept	Replacement of aging 69/13.2 kV transformer with a new 62.5 MVA transformer.
Local Reliability	2024	Eastern	Skungamaug Substation - Transformer replacement (Coventry)	Concept	Replacement of aging 69/13.8 kV transformer with a new 62.5 MVA transformer.
Local Reliability	2024	Southwest	Peaceable Substation - Transformer replacement (Redding)	Concept	Replacement of two aging 115/13.8 kV 25 and 30 MVA transformers with two new 62.5 MVA transformers.
Local Reliability	**2024**	**Southwest**	**Bunker Hill Substation reconfiguration (Waterbury)**	**Concept**	**Reconfigure the Bunker Hill 115 kV substation into a six breaker ring bus including substation modifications.**

Eastern Massachusetts Projects

Proposed, Planned, Under Construction, and In-Service projects only



Local System Plan – Eastern Massachusetts

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Eversource Local Area Projects - Eastern Massachusetts					
Need	**Projected ISD Month/Year (Cost >$5M dollars)**	**Project Area**	**Project**	**Status**	**Solution**
Local Reliability	Dec-19	NEMA	Replacement of 115 kV 132-538 Line between K St. substation and Deer Island substation	**In-Service**	A new submarine 115-kV cable will be installed from K St. substation to Deer Island substation.
Local Reliability	**Sep-20**	NEMA	Putnam Station #831 - Transformer addition	**In-Service**	**Install a fourth 115/14kV 65.5 MVA transformer. Serve as interim solution to East Cambridge Station overload before station #8025 goes in-service.**
Local Reliability	Dec-20	SEMA	Wellfleet Substation #976- Transformer replacements	**Under Construction**	Replace two 115/23-kV 26 MVA transformers with 50 MVA transformers.
Asset Condition	**Mar-21 $19.0M**	**SEMA**	**Line 125 115 kV Line Structure Replacements**	**Under Construction**	**Replace existing structures due to Asset Condition.**
Local Reliability	**Jun-21**	SEMA	Fisher Road Supply Upgrade, 115-kV 4.4 miles line from Cross Road to Fisher Road.	**Proposed**	1) Install a 2nd 115-kV transmission line. 2) Construct additional distribution circuit backup.
DER Interconnections	**Jul-21**	**SEMA**	**Wareham Station #714 Upgrade project**	**Planned**	**"Double end" the existing single ended Wareham station with a 45/60/75 MVA 115/23 kV transformer #2 and associated equipment, including a 115 kV circuit switcher, 23 kV bus section, and a 23 kV 4.8 MVAR capacitor bank.**
Local Reliability	**Dec-21**	SEMA	Rochester Substation #745 - Transformer replacement	Concept	Replace the 115/13.8 kV 12.5 MVA transformer with new 62.5 MVA 115/14-kV transformer.

Local System Plan – Eastern Massachusetts (continued)

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Eversource Local Area Projects - Eastern Massachusetts					
Need	**Projected ISD Month/Year (Cost >$5M dollars)**	**Project Area**	**Project**	**Status**	**Solution**
Local Reliability	**Dec-21**	SEMA	Medway Substation #65 - Transformer replacement	**Proposed**	Replace the 115/13.8-kV 110A transformer with a 62.5 MVA transformer.
DER Interconnection	**Dec-21**	SEMA	Tremont Substation #713- Transformer Replacement	Concept	**Replace the 115/23-kV 20 MVA transformer with a new 45/60/75 MVA transformer.**
Local Reliability	**Dec-21**	SEMA	Kingston Substation #735 - Transformer replacements	Concept	Replace both 115/23-kV 20 MVA transformers with **62.5 MVA** transformers.
Local Reliability	**2022 $68.3M**	NEMA	Andrew Square to Dewar, new 115-kV Line	**Planned**	Install new 115-kV transmission line between Andrew Square and Dewar stations to provide alternative source to either station under N-1 contingencies.
Local Reliability	2022	SEMA	Medway Substation #65 - Transformer Replacement	**Proposed**	Replace the 115/13.8-kV 110B transformer with a 62.5 MVA transformer.
Local Reliability	**2022**	NEMA	Carver St. Substation #71 - Transformer replacements	**Proposed**	Replace both 115/13.8-kV 110A and 110B transformers with 90 MVA transformers.
Local Reliability	2022	NEMA	Maynard Station #416 - Transformer addition	Concept	Add a 115/14-kV 110A transformer with a 62.5 MVA transformer.

Local System Plan – Eastern Massachusetts (continued)

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Eversource Local Area Projects - Eastern Massachusetts					
Need	**Projected ISD Month/Year (Cost >$5M dollars)**	**Project Area**	**Project**	**Status**	**Solution**
Local Reliability	2022	NEMA	Hawkins Street #2 - Transformer addition	Concept	**Replace the 115/14-kV 110A transformer with a 90 MVA transformer.**
Local Reliability	**2023**	SEMA	East Eagle Substation #131 - New substation	Planned	Install two 115/13.8-kV 62.5 MVA transformers; relieves Chelsea Sta #488.
Local Reliability	**2023**	**NEMA**	**Somerville #402 - Transformer addition**	**Proposed**	**Install a 3rd 62.5MVA transformer at Somerville #402. Serve as interim solution to East. Cambridge overload.**
Local Reliability	2023	NEMA	Hawkins Street #2 - Transformer addition	Concept	**Replace the 115/14-kV 110B transformer with a 90 MVA transformer.**
Local Reliability	2023	NEMA	Maynard Station #416 - Transformer addition	Concept	Add a 115/14-kV 110B transformer with a 62.5 MVA transformer.
Local Reliability	2023	NEMA	North Burlington – New Substation	Concept	Install first of two 62.5 MVA 115/14-kV transformers.
Local Reliability	**2023**	NEMA	Reconductor 250-516/517 Lines North Washington St Bridge	Concept	The city of Boston is replacing the North Washington St. bridge. The lines will be relocated to the new bridge and reconductored utilizing XLPE cable.

Local System Plan – Eastern Massachusetts (continued)

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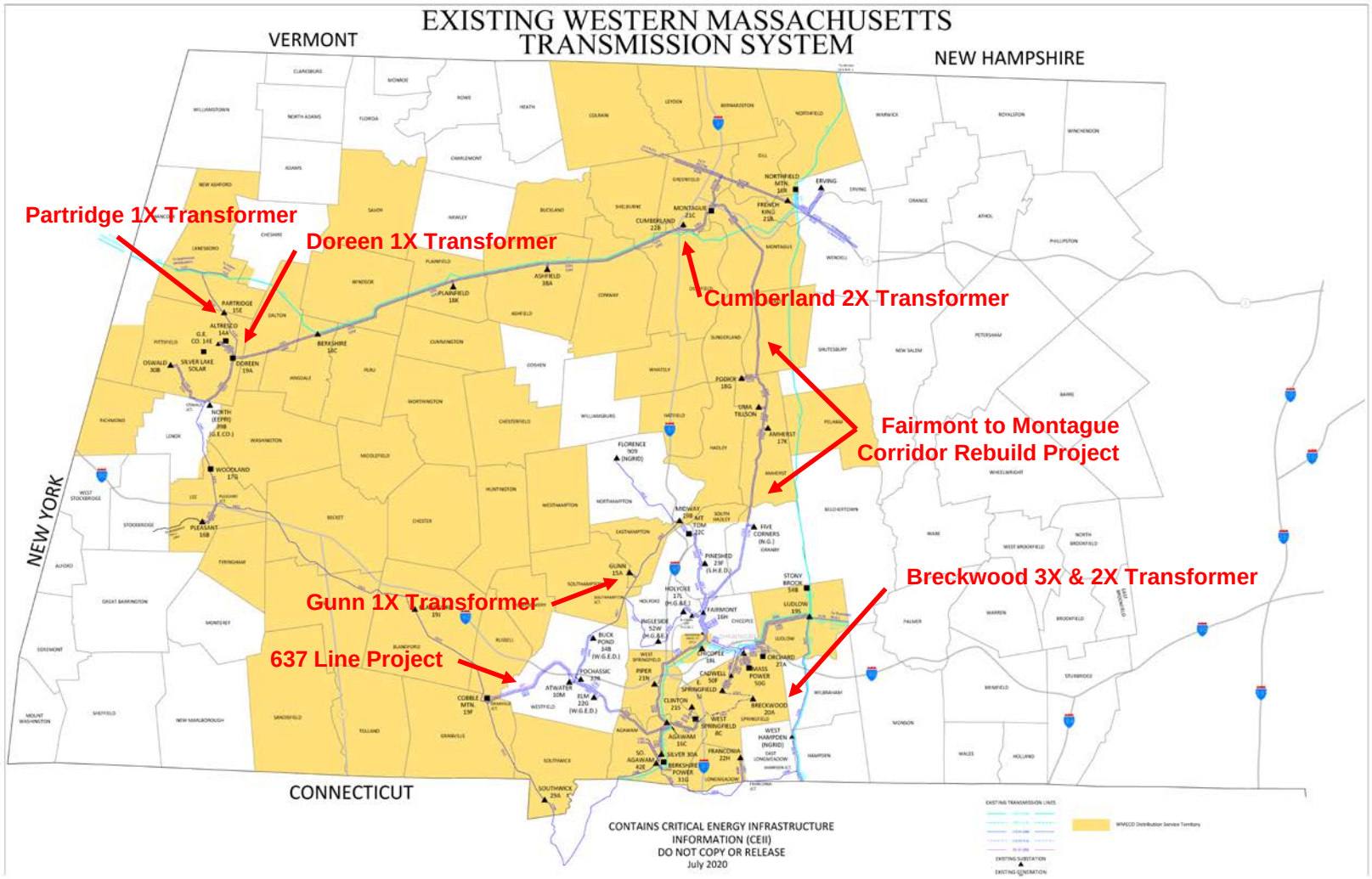
Eversource Local Area Projects - Eastern Massachusetts					
Need	**Projected ISD Month/Year (Cost >$5M dollars)**	**Project Area**	**Project**	**Status**	**Solution**
Local Reliability	2024	NEMA	Hyde Park – New Substation	Concept	Install first of two 75 MVA 115/14-kV transformers.
Local Reliability	2024	SEMA	Assonet – New Substation	Concept	A double-ended substation with two 62.5 MVA transformers and two 115 kV cables emanating from Bell Rock Substation #661.
Local Reliability	2024	NEMA	Manomet #721 – Transformer addition	Concept	Add a second 115/23-kV 50 MVA transformer.
Local Reliability	**2024**	SEMA	Falmouth Tap Switching Station Upgrade	Concept	Upgrade Falmouth Tap Switching Station from a 1-breaker series bus arrangement to a 115-kV breaker and a half scheme. Install a 115/23-kV bulk distribution station with one 30/40/50 MVA transformer to address area load growth
Local Reliability	**2024**	**SEMA**	**New Bourne to Falmouth Tap 115-kV Line**	**Concept**	**Install a new 115-kV transmission line between Bourne and Falmouth Tap substation to mitigate Consequential Load Loss violations under N-1-1 conditions.**
Asset Condition/ Reliability	**2024**	**SEMA**	**115-kV Line 142/143 XLPE Replacement**	**Concept**	**Replace pipe-type cable (PTC) circuits with solid dielectric cross-linked polyethylene (XLPE) technology**
Asset Condition/ Reliability	**2024**	**NEMA**	**115-kV Line 329-510/511 XLPE Replacement**	**Concept**	**Replace pipe-type cable (PTC) circuits between Somerville and Mystic with solid dielectric cross-linked polyethylene (XLPE) technology**
Local Reliability	**2025**	**NEMA**	**Saxonville or Natick 115/14kV station**	**Concept**	**115/14kV Station either at Saxonville or Mill Street, Natick, Two 65MVA transformer Station**
Local Reliability	**2027**	NEMA	**New East Cambridge Substation (#8025)**	Proposed	**Install three 90 MVA 115/14-kV transformers which will relieve East Cambridge #875, Putnam #831 and Prospect #819. East Cambridge will be supplied via 329-510/511 lines from Brighton which will be replaced with XLPE cables. The existing 831-538 and 875-539 lines will also interconnect with the new substation.**

Western Massachusetts Projects

Proposed, Planned, Under Construction, and In-Service projects only



Local System Plan – Western Massachusetts

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Eversource Local Area Projects - Western Massachusetts					
Need	**Projected ISD Month/Year (Cost >$5M dollars)**	**Project Area**	**Project**	**Status**	**Solution**
Asset Condition	**Sep-19 $5M**	Springfield	637 Line Structure Replacements	**In-Service**	Replace existing 69 kV structures due to Asset Condition.
Local Reliability	**Dec-20**	Springfield	Breckwood Substation - Transformer replacement (Springfield)	Under Construction	Replace existing 3X 115/13.8-kV 30 MVA transformer with a 62.5 MVA transformer.
Local Reliability	**Dec-20**	Hadley	Gunn Substation - Transformer replacement (Easthampton)	**Under Construction**	Replace existing 1X 115/23-kV 25 MVA transformer with a 62.5 MVA transformer.
DER Interconnection	**Aug-21**	**Pittsfield**	**Partridge Substation - Transformer replacement (Pittsfield)**	**Proposed**	**Replace existing 1X 115/23-kV 15/20/25 MVA transformer with a 62.5 MVA transformer.**
Local Reliability	**Dec-21**	Springfield	Breckwood Substation - Transformer replacement (Springfield)	Proposed	Replace existing 2X 115/13.8-kV 30 MVA transformer with a 62.5 MVA transformer.
Local Reliability	**Dec-21**	Greenfield	Cumberland Substation - Transformer replacement (Greenfield)	**Proposed**	Replace existing 2X 115/13.8-kV 30 MVA transformer with a 62.5 MVA transformer.

Local System Plan – Western Massachusetts (continued)

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Eversource Local Area Projects - Western Massachusetts					
Need	**Projected ISD Month/Year (Cost >$5M dollars)**	**Project Area**	**Project**	**Status**	**Solution**
Local Reliability	**2022**	Doreen	Doreen Substation - Transformer replacement (Pittsfield)	Proposed	Replace existing 1X 115/23-kV 25 MVA transformer with a 62.5 MVA transformer.
Local Reliability	**2022**	Springfield	Clinton Substation - Transformer replacement (Springfield)	Concept	Replace existing 3X 115/13.8-kV 30 MVA transformer with a 62.5 MVA transformer .
Local Reliability	**2022**	Springfield	Breckwood Substation - Transformer replacement (Springfield)	Concept	Replace existing 1X 115/13.8-kV 30 MVA transformer with a 62.5 MVA transformer.
Local Reliability	**2022**	**Springfield**	**Franconia Substation - Transformer replacement (Longmeadow)**	**Concept**	**Replace existing 2X 115/13.8-kV 28/37/47 MVA transformer with a 62.5 MVA transformer.**
Local Reliability	**2023 $193.2M**	Greenfield/ Springfield	Fairmont-Montague corridor transmission supply upgrade	**Planned**	**Rebuild the 115-kV transmission lines supplying the Amherst, Tillson, Podick, and Five Corners load pocket. Remove existing Type III Special Protection System.**
Local Reliability	**2023**	Springfield	Clinton Substation - Transformer replacement (Springfield)	Concept	Replace existing 2X 115/13.8-kV 30 MVA transformer with a 62.5 MVA transformer.
Local Reliability	**2023**	Greenfield	Montague Substation - Transformer replacement (Montague)	Concept	Replace existing 3X 115/13.8-kV 23 MVA transformer with a 62.5 MVA transformer.
Asset Condition/ Reliability	**2023**	**Springfield**	**Line 1433 115-kV Underground Cable Rebuild**	**Concept**	**Rebuild the existing 1433-line HPFF cable system with solid dielectric cross-linked polyethylene (XLPE) technology**
Local Reliability	**2023**	**Springfield**	**Franconia Substation - Transformer replacement (Longmeadow)**	**Concept**	**Replace existing 3X 115/13.8-kV 28/37/47 MVA transformer with a 62.5 MVA transformer.**

Local System Plan – Western Massachusetts (continued)

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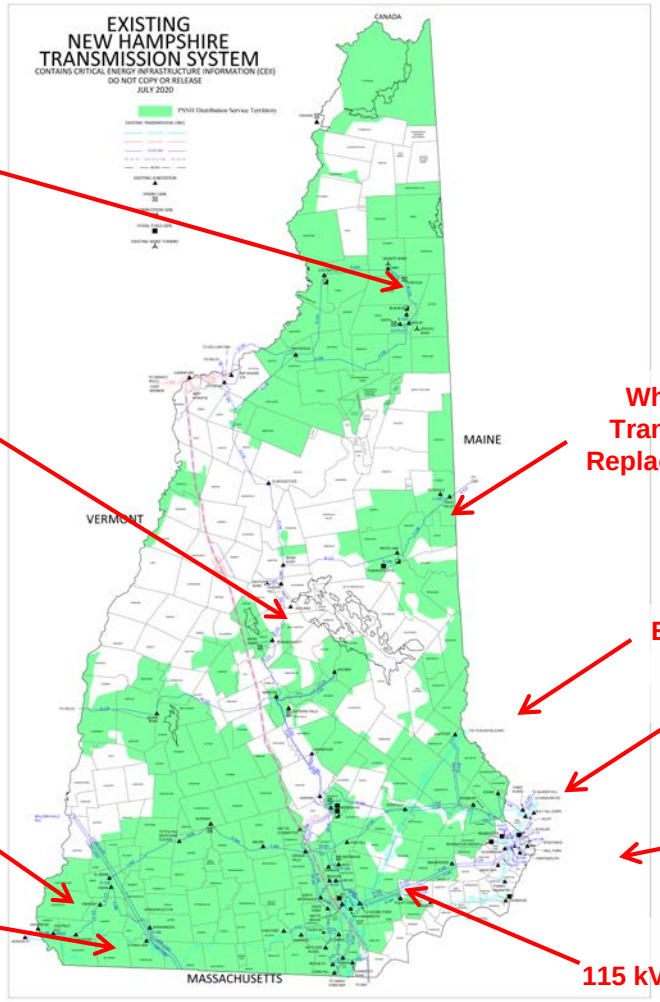
Eversource Local Area Projects - Western Massachusetts					
Need	**Month/Year (Cost >$5M dollars)**	**Project Area**	**Project**	**Status**	**Solution**
Local Reliability	**2024**	Springfield	Clinton Substation - Transformer replacement (Springfield)	Concept	Replace existing 1X 115/13.8-kV 30 MVA transformer with a 62.5 MVA transformer.
Local Reliability	2024	Springfield	Silver Substation – Transformer Replacement (Agawam)	Concept	Replace existing 1X 115/13.8 kV 47 MVA transformer with a 62.5 MVA transformer.
Asset Condition/ Reliability	**2024**	**Springfield**	**Line 1322 115-kV Underground Cable Rebuild**	**Concept**	**Rebuild the existing 1322-line HPFF cable system with solid dielectric cross-linked polyethylene (XLPE) technology**
Local Reliability	**2024 - 2026**	**Springfield**	**West Springfield Substation - Transformer replacements (West Springfield)**	**Concept**	**Replace the existing 115/13.8-kV transformers with 62.5 MVA transformers.**
Local Reliability	**2025**	Pittsfield	Pleasant Substation - Transformer replacement (Pittsfield)	Concept	Replace existing 2X 115/13.8-kV 30 MVA transformer with a 62.5 MVA transformer .
Local Reliability	**2025**	Pittsfield	Woodland Substation - Transformer replacement (Pittsfield)	Concept	Replace existing 1X 115/23-kV 25 MVA transformer with a 62.5 MVA transformer.
Local Reliability	**2025**	Springfield	Ludlow Substation - Transformer replacement (Ludlow)	Concept	Replace existing 1X 115/13.8-kV 25 MVA transformer with a 62.5 MVA transformer.

New Hampshire Projects



S136 Line Structure Replacements

Pemigewasett Transformer Replacement

White Lake Transformer Replacements

Eastport Breaker addition

Dover Transformer Replacements

Portsmouth Transformer Addition

Rebuild Keene substation

Monadnock Transformer Replacements

Eddy 115 kV Breaker addition

Local System Plan – New Hampshire

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Eversource Local Area Projects - New Hampshire					
Need	**Projected ISD Month/Year (Cost >$5M dollars)**	**Project Area**	**Project**	**Status**	**Solution**
Asset Condition	**Dec-20 $24.8M**	Northern	**S136 115 kV Line Structure Replacements and OPGW installation**	Under Construction	**Replace existing structures due to Asset Condition and install OPGW.**
Load Growth/ Reliability	**Dec-20**	Northern	Pemigewasset Substation - Transformer replacement (New Hampton)	Under Construction	Replace 20 MVA transformer with 62.5 MVA to address overload condition.
Load Growth/ Reliability	**Mar-21**	Eastern	Portsmouth Substation - Transformer addition (Portsmouth)	Under Construction	Replace the existing 44.8 MVA transformer with a 62.5 MVA transformer and add a second 62.5 MVA transformer.
Local Reliability	**May-21 $7.4M**	Eastern	Eastport Substation - Breaker additions (Rochester)	**Under Construction**	Add 115-kV breakers to complete ring bus configuration.
Local Reliability	**May-21**	Eastern	Eddy Substation – 115 kV Breaker addition (Manchester)	Planned	Add a 115-kV breaker.

Local System Plan – New Hampshire (continued)

Status of project descriptors in blue have changed from previous LSP or are newly listed

Eversource Local Area Projects - New Hampshire					
Need	**Projected ISD Month/Year (Cost >$5M dollars)**	**Project Area**	**Project**	**Current Status**	**Solution**
Asset Condition/ Reliability	**Dec-21**	Western	Emerald St. (Keene) Substation - Rebuild substation and add transformers (Keene)	Under Construction	Rebuild Emerald Street (Keene) Substation equipment with two new 30 MVA transformers and associated switchgear. The existing TB3 transformer (22.4 MVA) at Keene will remain.
Asset Condition/ Reliability	2022	Western	Monadnock Substation - Transformer replacements (Troy)	Proposed	**Replace the existing 115/34.5-kV, 20 & 28 MVA transformers at Monadnock substation with two new 115/34.5 kV, larger standard transformers.**
Asset Condition	**2022**	Northern	D142 115-kV Line Rebuild and Asset Condition Project	Concept	Rebuild the aging 115-kV line with larger conductor.
Asset Condition/ Reliability	**2022**	**Southern**	**G192 115-kV Line Conductor and Shield Wire replacement**	**Concept**	**Replace deteriorating copper materials with new conductor and OPGW between Bridge Street substation and Power Street substation.**
Asset Condition	**2022**	**Central**	**E115 Tap 115-kV Line Rebuild and Asset Condition Project**	**Concept**	**Rebuild the aging 115-kV line with larger conductor and OPGW.**

Local System Plan – New Hampshire (continued)

Status of project descriptors in blue have changed from previous LSP or are newly listed

Eversource Local Area Projects - New Hampshire					
Need	**Projected ISD Month/Year (Cost >$5M dollars)**	**Project Area**	**Project**	**Current Status**	**Solution**
Asset Condition	**2022**	**Northern**	**W179 115-kV Line Rebuild and Asset Condition Project**	**Concept**	**Rebuild the aging 115-kV line with larger conductor and OPGW.**
Asset Condition	2023	Northern	O154 115-kV Line Rebuild and Asset Condition Project	Concept	Rebuild the aging 115-kV line with larger conductor.
Asset Condition/ Reliability	2023	Northern	White Lake Substation - Transformer replacements (Tamworth)	Proposed	Replace the existing two 115/34.5-kV, 28 MVA transformers at White Lake substation with two new 115/34.5 kV, 62.5 MVA transformers.
Asset Condition/ Reliability	**2024**	Eastern	Cocheco St. (Dover) Substation - Transformer replacements (Dover)	Proposed	Replace the existing two 115/34.5-kV, 44.8 MVA transformers at Cocheco Street (Dover) Substation with two new 115/34.5 kV, 62.5 MVA transformers.
Load Growth and Reliability	**2024**	Southern	South Milford Substation - Transformer addition (Milford)	Concept	Add a second 115/34.5 kV transformer at South Milford substation. Transformer to be a 62.5 MVA unit.

Comments

Please provide any written comments for consideration by November 21, 2020 (as defined in the ISO-NE Open Access Transmission Tariff Section II – Attachment K Appendix 1 [Attachment K – Local], section 1.4).

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Thank you for participating in the Eversource LSP Presentation.

Questions?