

## Northeast Utilities Local Area Transmission Facilities Project Listing - NH

Need	Projected In-Service Month/Year	Project Area division	Project	Current Status	Needs Assessment	Solutions
Dist/Load Growth	06/01/2011	Southern	Add two 30 MVA, 115-12.47-kV transformers at Scobie Pond Distribution substation (previously Shields Brook substation, Londonderry)	Concept	Needed for PSNH 12.47kV system load growth.	New substation will be supplied by existing Transmission lines. New 12.47-kV infrastructure upgrades will allow local load growth and reliability of service.
Dist/Load Growth	06/01/2011	Southern	Install one 44.8 MVA, 115-34.5 kV transformer at new Thornton substation (Merrimack)	Concept	Needed for PSNH 34.5kV system load growth.	The new substation will be supplied by looping in and out with 115-kV Line K165. This provides the needed distribution transformation for the Merrimack area and to offload an overloaded substation.
Dist/Load Growth	06/01/2012	Western	Replace the 20 MVA, 115-34.5 kV transformer with a 44.8 MVA, 115-34.5 kV transformer at Pemigewasset substation	Concept	Needed for PSNH 34.5kV system load growth.	Straight change-out of a smaller transformer to a larger capacity transformer to supply local load growth.
Dist/Load Growth	06/01/2012	Seacoast	Add a second 44.8 MVA, 115-34.5 kV transformer and second 115-kV line at Kingston substation (Kingston)	Concept	Needed for UES 34.5kV system load growth and PSNH design criteria.	The new substation will be supplied by looping a Transmission line in and out. Added transformer capacity needed for local system load and reliability of service.
Dist/Load Growth	06/01/2014	Southern	Install two 44.8 MVA, 115-34.5 kV transformers at new Broad Street substation (Nashua)	Concept	Needed for PSNH 34.5kV system load growth and PSNH design criteria.	This meets the need to provide new 115-34.5 kV capacity near the load in the greater Nashua area.
Dist/Load Growth	06/01/2014	Southern	Add a second 44.8 MVA, 115-34.5 kV transformer at Rimmon substation (Manchester)	Concept	Needed for 34.5 kV system load growth and PSNH design criteria	The substation addition will involve extending a Transmission line and looping in and out of the substation. Additional capacity is needed to serve local area load and for system operational contingencies.
Dist/Load Growth	06/01/2014	Western	Install one 44.8 MVA, 115-12.47 kV transformer at new substation (North Keene)	Concept	Needed for PSNH 12.47kV system load growth in the Keene area.	This project will provide local area transformer capacity and load contingency flexibility.

**Northeast Utilites Local Area Transmission Facilities Project Listing - MA**

Need	Projected In-Service Month/Year	Project Area	Project	Current Status	Needs Assessment	Solutions
Dist/Load growth	2011-2013	Springfield	Southwick substation	Concept	Distribution load growth	Replace both transformers, currently rated 115-13.8 kV, 27MVA, with larger transformers to accomodate load growth.

## Northeast Utilities Local Area Transmission Facilities Project Listing - CT

Need	Projected In-Service Month/Year	Project Area	Project	Current Status	Needs Assessment	Solutions
Dist/Load Growth	Apr-10	Norwalk Stamford	Add a 2nd 115/13.2kV transformer at Cos Cob substation	Planned	Additional 13.2 kV capacity required because load is near capacity of the one existing 25 MVA transformer	Adding a used, 30MVA 13.2 kV transformer was the chosen solution. This will raise the station rating to 40 MVA. Main alternative considered was to add a new 47 MVA xf and switchgear. Less expensive solution chosen because it will meet projected load growth for at least 10 years. Also, additional feeders won't be needed until load exceeds the new station rating.
Dist/Load Growth	Dec-11	Southwest	Add a 4th 115/13.2kV transformer at South End substation	Concept	Distribution Load Growth	Add a fourth 115/13.2-kV transformer at South End Substation (Stamford).
Dist/Load Growth	Dec-13	Southwest	South End 1G S/S – Replace 47MVA XFs with 60MVA Units	Concept	Distribution Load Growth	replace the existing 1G-1X, 2X, and 3X 47MVA, 155-13.8KV power transformers with 60MVA rated units at South End 1G Substation
Dist/Load Growth	May-10	Eastern	Install a new 115-kV Waterford ( formally Cohanzie) Substation	Under Construction	The problem is at Flanders substation where the load has exceeded the station rating.	60 MVA transformers and 8 feeders. Two alternatives were considered. 1. Replace 47MVA transformers at Flanders with 60 MVA units. This was rejected because the new rating would still be exceeded by 2016. 2. Install a third 47 MVA unit at Flanders. This was rejected primarily due to lack of space in the Flanders yard.
Dist/Load Growth	Dec-10	Eastern	Replace one 115/34.5kV transformer and add two 115/13.8kV transformers at Mystic substation	Under Construction	Two transformer problems at Mystic substation. The 13.8-kV transformer capacity near rating and 1X transformer is gassing. Also, the 13.8-kV switchgear needs replacement.	Chosen solution is to add two 13.8 kV transformers (one new and one used), replace the 1X with a used transformer, and install new 13.8kV switchgear. No other practical solutions exist to solve the multiple problems.