

Northeast Utilities Local Area Transmission Facilities Project Listing - NH

Need	Projected In-Service	Project Area division	Project	Current Status	Needs Assessment	Solutions
Dist/Load Growth	Dec-11	Southern	Add two Distribution transformers at new Scobie Pond distribution substation (previously Shields Brook substation, Londonderry)	Under Construction	Needed for PSNH 12.47-kV system load growth.	New distribution substation will be supplied by existing Transmission lines. Infrastructure upgrades will allow local load growth and reliability of service.
Dist/Load Growth	Jun-12	Southern	Install one transformer at new Thornton distribution substation (Merrimack)	Under Construction	Needed for PSNH 34.5-kV system load growth.	The new substation will be supplied by looping in and out with 115-kV line, providing the needed distribution transformation for the Merrimack area and to offload an overloaded substation. Part of this project is PTF and is listed in the Oct ISO-NE RSP project listing (1182).
Dist/Load Growth	2014	Seacoast	Rochester Area Project (Rochester)	Planned	The Dover/Rochester area has projected load growth. (Part of Deerfield Autotransformer project)	Build a new 6.9 mile radial 115-kV line from Rochester/Eastport to new North Rochester Distribution Substation, and install a single transformer. Part of this project is PTF and is listed in the ISO-NE RSP project listing (1141).
Dist/Load Growth	2014	Seacoast	Install a new 115/12.47-kV transformer at a new distribution substation in the Portsmouth area	Concept	Needed for PSNH 12.47-kV load growth	The new Distribution substation will be supplied by existing Transmission lines. Distribution infrastructure upgrades will serve local load growth and provide reliability of service.
Reliability/Load Growth	2016	Seacoast	Build a new 115/34.5-kV substation in the Deerfield Area (Deerfield)	Concept	Existing distribution load substations are projected to approach their respective rating limitations. Project also provides operational and reliability benefits.	Build a new radial 115-kV line from Deerfield substation to a new 115/34.5-kV distribution substation in the Deerfield area and install a single transformer to serve local area load.
Dist/Load Growth	2016	Southern	Build a new 115/34.5-kV Massabesic substation (Manchester)	Concept	Existing distribution load substations are projected to approach their respective rating limitations. Project also provides operational and reliability benefits.	Build a new 115-kV line from Huse Rd. or Pine Hill substation to a new 115/34.5-kV Massabesic substation and install a single transformer to serve local area load
Dist/Load Growth	2017	Southern	Build a new Broken Ground Substation (Concord)	Concept	Existing distribution load substations are projected to approach their respective rating limitations.	This a Unitol Electric System project; PSNH is only involved with the offloading of PSNH's Garvins and Oak Hill substations.

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Reliability/ Load growth	Oct-11	Springfield	Southwick Substation transformer (Southwick)	In Service	This substation has experienced an increase in load. Southwick is unique in WMECo in that it supplies distribution load at both 13.8-kV and 23-kV, through two 13.8-kV transformers connected to the 115-kV system, and one 13.8/23-kV transformer. Existing 13.8-kV load levels on the distribution circuits frequently result in poor performance. Added transformer capacity is needed for local system load and reliability of service.	Replace both 13.8-kV transformers with larger capacity transformer. Converting to the higher voltage (23kv) will increase the capacity of the circuits by nearly 60%, improving reliability.
Reliability/ Load growth	2013	Springfield	Southwick Substation transformer (Southwick)	Planned		
Reliability/ Obsolescence	2014	Greenfield	Montague Substation Rebuild	Concept	Existing 13.8-kV breakers and bus at Montague substation are obsolete. Existing bus is open air, susceptible to wildlife outages.	Replace existing 13.8-kV breakers and bus with new metalclad switchgear, double bus. This will be resistant to wildlife outages and allows for breaker maintenance without taking the circuit out of service, and provides redundancy if there is a bus outage.
Reliability/ Load growth	2016	Hadley	Amherst Substation expansion or new substation (Amherst)	Concept	Upgrades are necessary in the Hadley area to accommodate load increases at UMASS-Amherst.	Add a third 115/13.8-kV transformer and associated breakers dedicated for UMASS at Amherst 17K. An alternative solution under consideration is installing a new customer owned and operated 115/13.8-kV substation adjacent to the UMASS campus.
Distribution/ Load growth	2016	Hadley	Podick Substation (Amherst)	Concept	Load growth at UMass will exceed the ratings of the 115-kV lines feeding Podick in the near term	Install 115-kV bus tie breaker between the transformers

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Reliability	2015	Springfield	West Springfield Substation asset replacement	Concept	Deterioration of substation asset conditions	Evaluation on-going
Reliability	2017	Hadley	Podick Substation rebuild (Amherst)	Concept	Existing 13.8-kV breakers and bus at Podick substation are obsolete. Existing bus is open air, susceptible to wildlife outages.	Replace existing 13.8-kV breakers and bus with new metalclad switchgear, double bus. This will be resistant to wildlife outages and allows for breaker maintenance without taking the circuit out of service, and provides redundancy if there is a bus outage.

Northeast Utilites Local Area Transmission Facilities Projects - CT

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Dist/Load Growth	Dec-10	Eastern	Replace one 115/34.5kV transformer and add two 115/13.8kV transformers at Mystic substation (Stonington)	In-Service	Two transformer problems at Mystic substation. The 13.8-kV transformer capacity near rating and transformer is gassing.	Chosen solution is to add two 13.8-kV transformers.
Dist/Load Growth	Jun-11	Norwalk/Stamford	Add a 2nd 115/13.2-kV transformer at Cos Cob substation (Greenwich)	In-Service	Additional 13.2-kV capacity required because load is near capacity of the one existing 25-MVA transformer	Adding a used transformer to increase the rating of the station was the chosen solution. Main alternative considered was to add a new transformer and switchgear. The less expensive solution chosen because it will meet projected load growth for at least 10 years.
Reliability/ Load growth	Dec-11	Greater Hartford	Black Rock Substation transformer (New Britain)	Under Construction	Due to the single source supply, obtaining adequate outages is very difficult. The equipment is very old (the transformer is greater than 60 years old) and needs to be replaced. The transformer is experiencing minor leaks and the condition is manageable until the equipment can be replaced.	The transformer shall be replaced with a 115/69 kV transformer (identical to the system spare stored at Torrington Terminal to ensure system interchangeability).
Dist/Load Growth	2012	Southwest Connecticut	Add a 3rd 115/13.2-kV transformer at Newtown substation (Newtown)	Concept	Due to area load the substation capacity approaches its limit	Adding a third transformer to increase the capacity of the substation.
Dist Load Growth	2014	Norwalk/Stamford	Add a 3rd 115/13.2-kV transformer (60-MVA) at Norwalk substation. (Norwalk)	Concept	Due to area load the substation capacity approaches its limit	Adding a third transformer to increase the capacity of the substation.
Dist/Load Growth	2015	Eastern	Replace two 25-MVA transformers with 47-MVA units at Uncasville substation. (Montville)	Concept	Due to area load the substation capacity approaches its limit	Replacing the two existing 25-MVA transformers with larger capacity transformers will increase the capacity of the substation to accommodate increased load growth. It will also free up the two 25-MVA units for use elsewhere on the system.
Dist Load Growth	2015	Greater Hartford	Add 3rd 115/23-kV transformer at North Bloomfield substation (Bloomfield)	Concept	Due to area load the substation capacity approaches its limit	Add a third transformer to increase the capacity of the substation.

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Load growth	2015	Southwest	Canal substation, add 115/23-kV transformer (Southington)	Concept	Due to area load the substation capacity approaches its limit	Add a second bulk power transformer of 60 MVA, potential 115-kV circuit breaker, and a PCE (power control enclosure) to the Canal substation.
Reliability/ Load growth	2017	Southwest	New Greenwich Substation	Concept	Due to area load growth, a bulk substation and two distribution stations are approaching their limits. The new substation will be in the center of the load area, which will improve the reliability of the 27.6-kV and 13.2-kV distribution systems.	Add a new bulk power substation in the Greenwich area.