Northeast Utilities

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March 30, 2012

Mr. Robert Stein
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Docket No. CSC 424 - Interstate Reliability Project

Dear Mr. Stein:

This letter provides the response to requests for the information listed below.

Response to CSC-01 Interrogatories dated 03/09/2012
CSC-001, 004, 008, 011, 012, 014, 015, 016, 023, 024, 025

Very truly yours,

Robert Carberry /tr

Robert Carberry
Manager
Siting and Permitting
NUSCO
As Agent for CL&P

cc: Service List

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:
What is the geographical territory of each of the companies involved in the proposed Interstate project?

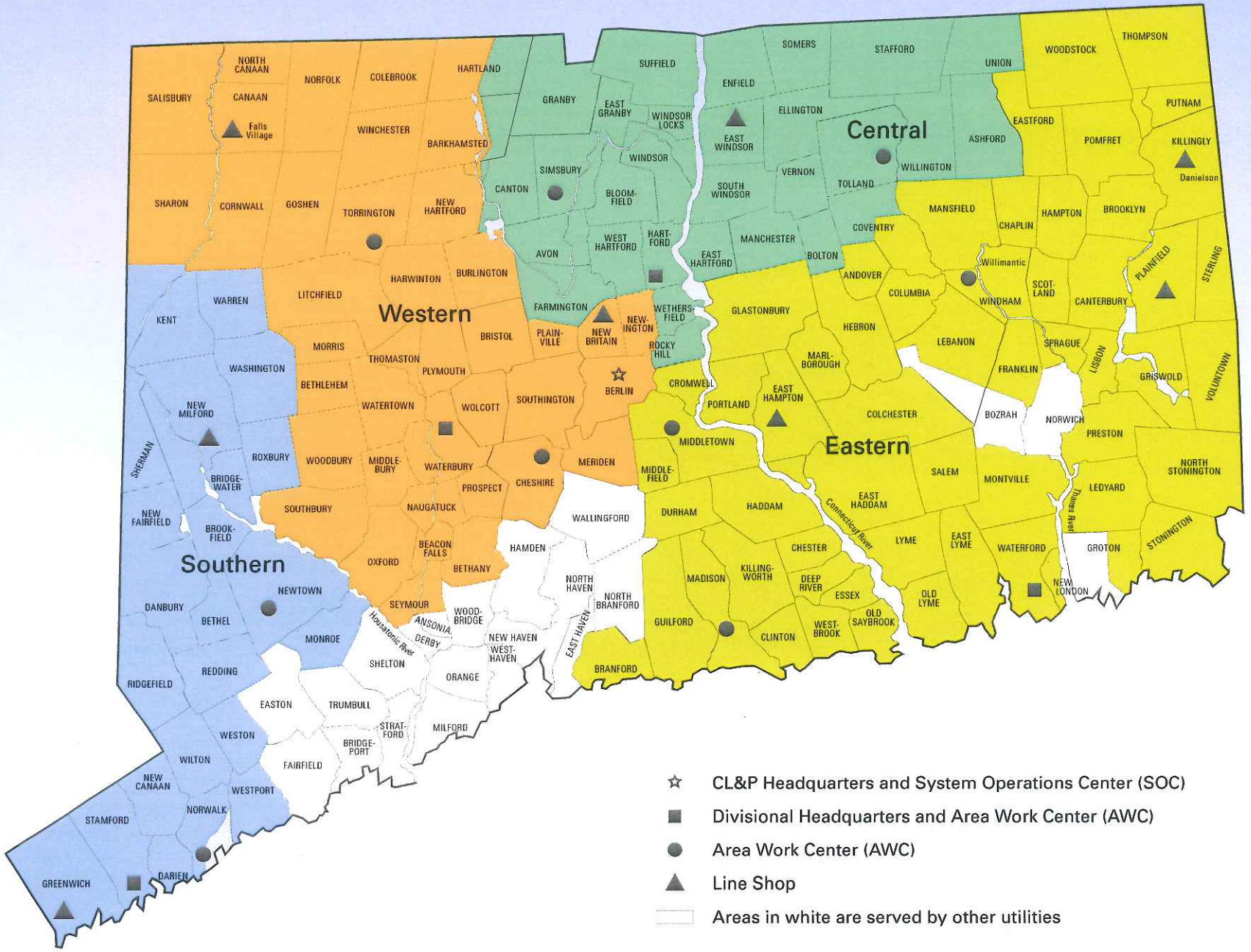
Response:

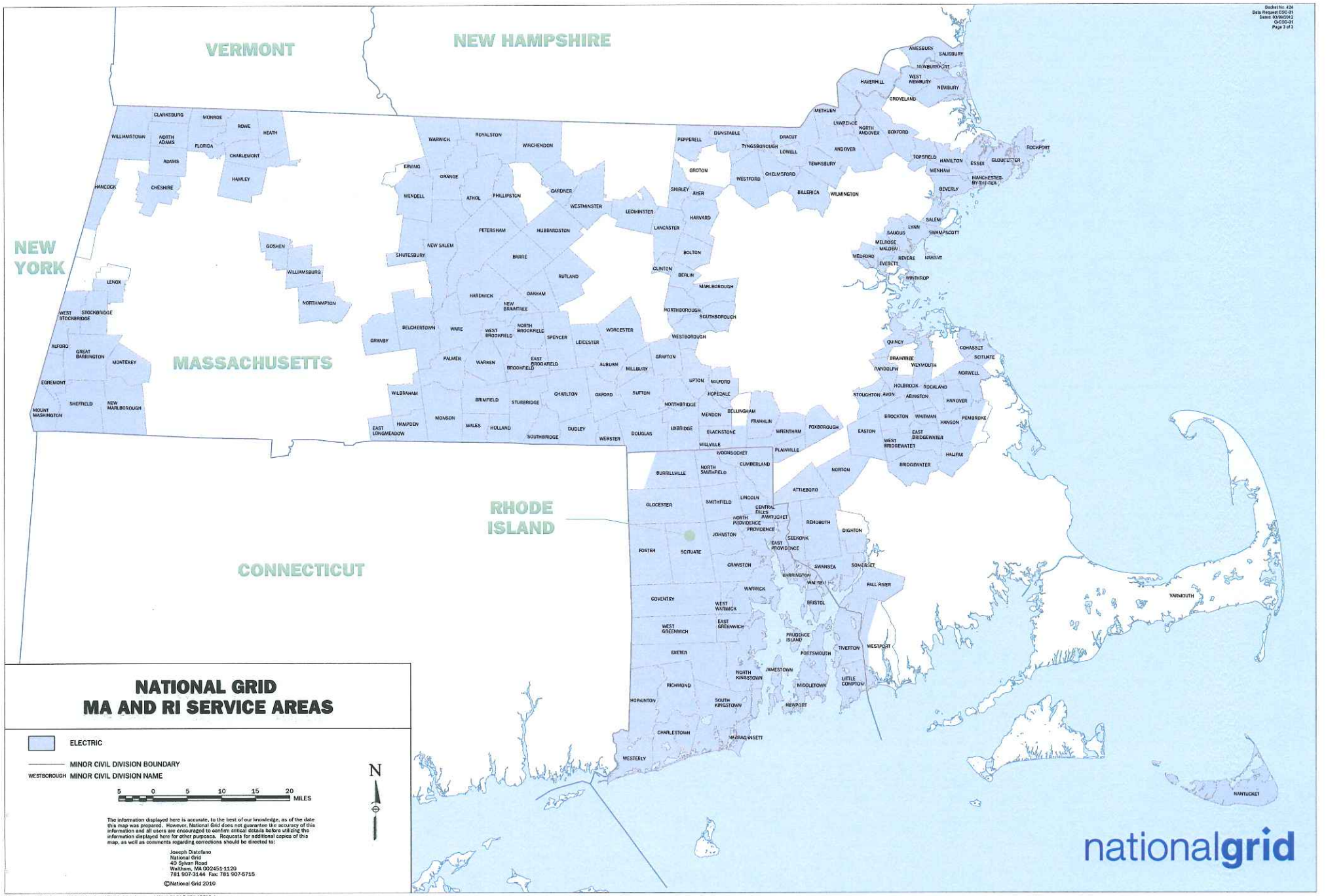
The companies involved in the proposed Interstate project are CL&P, the Narragansett Electric Company, and the New England Power Company.

Towns shaded with a non-white color on the Connecticut map that is page 2 of 3 of this response represent the CL&P service territory. Similarly blue-colored towns on the Rhode Island and Massachusetts map that is page 3 of 3 of this response represent the National Grid USA service territory in those two states. National Grid USA's affiliate, The Narragansett Electric Company, serves customer load in Rhode Island. Two other National Grid USA affiliates, the Massachusetts Electric Company and the Nantucket Electric Company, serve customer load in Massachusetts. The New England Power Company holds the transmission assets of National Grid USA and provides services to the three affiliate companies in Massachusetts and Rhode Island. The New England Power Company also controls National Grid USA transmission assets in New Hampshire, where its affiliate company, Granite State Electric, serves customer load, and in Vermont.

Connecticut Light & Power
A Northeast Utilities Company

CL&P Divisions and Facility Locations





NATIONAL GRID
MA AND RI SERVICE AREAS

ELECTRIC

MINOR CIVIL DIVISION BOUNDARY

WESTBOROUGH MINOR CIVIL DIVISION NAME

5 0 5 10 15 20 MILES

N

The information displayed here is accurate, to the best of our knowledge, as of the date this map was prepared. However, National Grid does not guarantee the accuracy of this information and all users are encouraged to confirm critical details before utilizing the information displayed here for other purposes. Requests for additional copies of this map, as well as comments regarding corrections should be directed to:

Joseph Distefano
National Grid
40 Sylvan Road
Waltham, MA 02451-1120
781 907-3144 Fax: 781 907-5715

FILE: e:\maps\Map_Requests\2012\Northeast Utilities\Service areas\MA & RI G&E SRV AREAS.dgn
DATE: 12-Mar-12 13:59

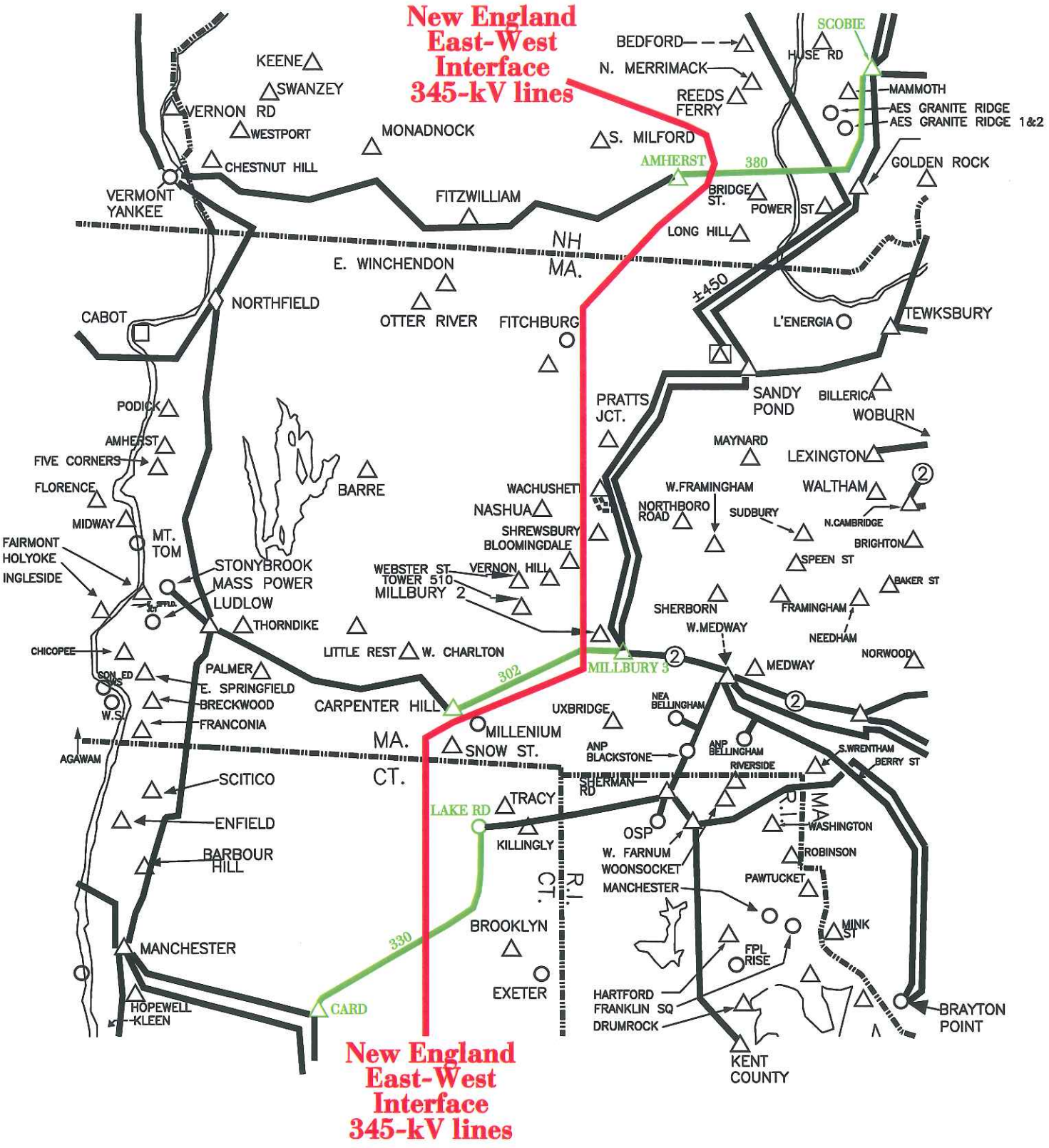
nationalgrid

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:
What existing 345-kV lines currently cross the New England East- West Interface?

Response:

There are three 345-kV transmission lines that currently cross the New England East-West Interface. These three lines are shown with green coloring on a geographic map on page 2 of 2.


New England
East-West
Interface
345-kV lines
KEENE
SWANZEY
VERNON RD
WESTPORT
MONADNOCK
CHESTNUT HILL
VERMONT
YANKEE
FITZWILLIAM
NH
MA.
E. WINCHENDON
OTTER RIVER
CABOT
NORTHFIELD
FITCHBURG
BEDFORD
N. MERRIMACK
REEDS
FERRY
S. MILFORD
AMHERST
380
BRIDGE
ST.
POWER ST
LONG HILL
SCOBIE
HUSE RD
MAMMOTH
AES GRANITE RIDGE
AES GRANITE RIDGE 1&2
GOLDEN ROCK
±450
L'ENERGIA
TEWKSBURY
PRATTS
JCT.
SANDY
POND
BILLERICA
WOBURN
MAYNARD
LEXINGTON
WALTHAM
W.FRAMINGHAM
NORTHBORO
ROAD
SUDBURY
N.CAMBRIDGE
BRIGHTON
SPEEN ST
BAKER ST
FRAMINGHAM
NEEDHAM
NORWOOD
SHERBORN
W.MEDWAY
MEDWAY
MILLBURY 3
302
PODICK
AMHERST
FIVE CORNERS
FLORENCE
MIDWAY
MT.
TOM
FAIRMONT
HOLYOKE
INGLESIDE
BARRE
WACHUSHETT
NASHUA
SHREWSBURY
BLOOMINGDALE
WEBSTER ST
TOWER 510
MILLBURY 2
VERNON HILL
STONYBROOK
MASS POWER
LUDLOW
THORNDIKE
LITTLE REST
W. CHARLTON
CHICOPEE
SON ED
W.S.
PALMER
E. SPRINGFIELD
BRECKWOOD
FRANCONIA
AGAWAM
CARPENTER HILL
MILLENIUM
SNOW ST.
MA.
CT.
UXBRIDGE
NEA
BELLINGHAM
ANP
BLACKSTONE
ANP
BELLINGHAM
S.WRENTHAM
BERRY ST
RIVERSIDE
SHERMAN
RD
SCITICO
ENFIELD
BARBOUR
HILL
LAKE RD
TRACY
KILLINGLY
OSP
W. FARNUM
WOONSOCKET
MANCHESTER
R.I.
CT.
R.I.
MA
WASHINGTON
ROBINSON
PAWTUCKET
MINK
ST
FPL
RISE
BROOKLYN
EXETER
330
CARD
MANCHESTER
HOPEWELL
KLEEN
HARTFORD
FRANKLIN SQ
DRUMROCK
KENT
COUNTY
BRAYTON
POINT
New England
East-West
Interface
345-kV lines

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:
The application (Vol. I, p. 3-6) mentions relocation of existing guy wires as part of the proposed project. Is the potential environmental impact (e.g. in wetland areas) of the relocation included in the assessment of the proposed project? If not, what is the estimated additional disturbance from the proposed guy wire relocation?

Response:

As discussed in Section 6.1.2.2 (Volume 1 of the Application) and summarized in Table 6-2, the construction of the Project is expected to result in approximately 8.9 acres of temporary impacts to wetlands. Included in this temporary impact calculation is an estimated 0.9-acre temporary impact of "guy easements". In addition, Table 6-2 includes an estimated permanent effect of less than 0.1 acre for guy-anchor installation.

These impact estimates are conservative and are based on the available level of Project engineering design information. The relocation of guy wires on existing structures to facilitate the construction of the new 345-kV transmission line is not explicitly defined in Table 6-2. However, the de minimus effects that would be associated with the temporary work in wetlands as a result of this activity are encompassed by the conservative wetland impact estimates presented in Table 6-2.

The following text briefly reviews the status of the constructability reviews regarding the need for existing guy wire relocations for the construction of the Project and summarizes the anticipated effects of removing or relocating guy wires in wetlands. Detailed information regarding the exact locations of guy-wire relocations will be developed as part of the final engineering design of the Project.

Guy wires attach at various points on a transmission line structure and are anchored to the ground to lend stability to structures that are subject to stress, such as dead-end or angle structures. Typically, guy wires and anchors are within the existing right-of-way (ROW) and are anchored within approximately 100 to 120 feet from a structure. Some of the guy wires used on CL&P's existing 115- and 345-kV line structures along the Project ROW are likely anchored with screw anchors, whereas heavier guy wires may be anchored with plate anchors (i.e., a steel plate that is embedded in concrete in the ground).

The guy wires on certain existing transmission line structures will have to be temporarily relocated during the construction of a new 345-kV transmission line within the existing ROW. The existing structures at which guy-wire relocations are anticipated are listed in Table Q-CSC-008-1 on page 3 of 3 . As this table shows, based on the constructability reviews conducted to date, guy wires on 33 existing 345-kV transmission line structures and two 115-kV transmission line structures will have to be relocated for the Project construction. Of these 35 guy wire locations, 14 will entail work in wetlands, either to remove the existing guy-wire anchors or to install temporary guy-wire anchors.

All activities involved in guy-anchor removal, temporary relocation, and -- as necessary - return to pre-construction sites, would be temporary, minor, and highly localized to the vicinity of the guy anchors. In order to relocate the existing guy wires, access to the guy anchors is required. Where guy anchors are located in wetlands, this may involve using timber mats, log rip rap, or equivalent temporary support to allow construction equipment to access the anchor sites, if necessary. Low-impact equipment also may be used. The exact method of accessing the guy anchors located in wetlands will depend on site-specific wetland characteristics (e.g., cohesiveness of soils to support equipment), time of year (if ground is frozen, access without mats or log rip rap may be practicable), and the location of the guy anchors within

each wetland.

To remove the guy wires from the existing anchor points, a small hole would be excavated to expose the below-ground anchor and the guy wire would be cut off. Old wires may be removed entirely or relocated, depending on the location where the temporary anchor must be set and the length of wire needed. The existing anchors (whether plate or screw type) typically would be left in place, minimizing the amount of soil disturbance. Any disturbed soils will be replaced and no long-term wetland functions or hydrology will be affected by the guy anchor removal process.

The installation or removal of guys will typically result in a temporary impact to an area of approximately 10 feet by 10 feet at each guy-anchor location. In wetlands, a temporary access road, consisting of timber mats, corduroy road, or equivalent, may be installed to reach guy-anchor locations that cannot otherwise be accessed from other Project work pads (e.g., for new structure installation) or access roads. We assume that equipment needed to remove the guy wires or to install anchors will work off the access road. The length of temporary access road required to reach the guy-anchor sites in each wetland cannot be determined with certainty until a more detailed Project design is developed.

Where practical, temporary guy anchors will not be placed in wetlands. However, in some areas, it is likely that guy anchors must be placed in wetlands to achieve the proper tension for structure stability. In such locations where temporary wetland impacts are unavoidable, measures will be taken to minimize adverse wetland effects. For example, temporary guy anchors will consist of the screw-type anchor and will not involve the placement of any concrete in wetlands. Construction work that must be performed in wetlands to install the guy anchors and guys will be limited to the extent practical. After the guy anchor is installed, wetland soils will be replaced over the top of the anchor. Temporary guy anchors and temporary guy wires will remain for the duration of the new line construction.

After the new 345-kV line structures are installed, the temporary guy wires used to support the existing 115- and 345-kV line structures will be returned to their original permanent guy-anchor sites, as appropriate. Whereas the guy wires will typically be relocated, the temporary guy anchors may be either removed or left in place, depending on site-specific conditions and taking into consideration the minimization or avoidance of impacts to wetlands. For example, if the removal of a temporary guy anchor would require construction access and excavation that would unnecessarily disrupt a wetland, the guy anchor may be left in place to avoid further disturbance to the wetland. On the other hand, guy anchors may be removed from wetlands where it is determined that the removal can be accomplished with minimal adverse environmental effects and where leaving the temporary anchor may otherwise have an adverse impact. The exact approach used will depend on site-specific wetland conditions, as well as the size and location of the temporary guy anchor within a particular wetland.

Overall, the effects of installing the guy anchors in wetlands will result in negligible, short-term effects.

Table Q-CSC-008-1
Existing Structures Requiring Guy Modifications for Interstate Reliability Project Construction

Structure Number	Circuit Number	Structure Type	Wetland	Proposed Modification
Columbia				
9011	330	Type "E"	None	Re-position Shield Wire Guys and Top Phase Conductor Guys
9014	330	Type "E"	W20-11	Re-position Shield Wire Guys and Top Phase Conductor Guys
9019	330	Type "E"	W20-19	Re-position Shield Wire Guys and Top Phase Conductor Guys
Coventry				
9027	330	Type "F"	W20-28	Temporary Re-position of Top Phase Guys
9033	330	Type "F"	None	Temporary Re-position of Shield Wire Bisector Guy
Mansfield				
9041	330	Type "F"	W20-38	Widen Shield Wire Guys
9061	330	Type "C"	W20-54	Widen Phase Guys
9068	330	Type "C"	None	Widen Phase Guys
9077	330	Type "F"	None	Widen Shield Wire Guys
9080	330	Type "F"	None	Widen Shield Wire Guys
9088	330	Type "F"	None	Widen Shield Wire Guys
Chaplin				
9099	330	Type "D"	W20-76	Widen Phase Guys
9103	330	Type "C"	W20-81	Widen Phase Guys
Hampton				
9123	330	Type "D"	None	Widen Phase Guys
9126	330	Type "C"	None	Widen Phase Guys
9157	330	Type "E"	None	Re-position Shield Wire Bisector Guy & Possibly Widen Phase Guys
Brooklyn				
9163	330	Type "C"	W20-122	Widen Phase Guys
9173	330	Type "D"	None	Widen Phase Guys
9182	330	Type "F"	W20-138	Widen Shield Wire Guys
9195	330	Type "C"	None	Widen Phase Guys
9207	330	Type "F"	None	Widen Shield Wire Guys
9209	330	Type "D"	W20-157	Widen Phase Guys
9213	330	Type "E"	W20-158 / BR-19-VP	Re-position Shield Wire Bisector Guy & Possibly Widen Phase Guys
Pomfret				
9237	330	Type "D"	None	Widen Phase Guys
Killingly				
9240	330	Type "F"	None	Widen Shield Wire Guys
7337	1505	115-kV	None	Re-position Shield Wire Guys and Top Phase Conductor Guys: 115-kV line
7341	1505	115-kV	W20-169	Re-position Shield Wire Guys and Top Phase Conductor Guys: 115-kV line
9253	330	Type "E"	None	Re-position Shield Wire Bisector Guy & Possibly Widen Phase Guys
9255	330	Type "F"	None	Widen Shield Wire Guys
9259	330	Type "E"	None	Re-position Shield Wire Bisector Guy & Possibly Widen Phase Guys
9263-9264	330		None	Re-move Span guys?
Putnam				
9287	347	Type "F"	W20-187 / PU-5-VP	Widen Shield Wire Guys
9301	347	Type "C"	W20-195 / PU-10-VP	Widen Phase Guys
Thompson				
9319	347	Type "F"	None	Widen Shield Wire Guys
9330	347	Type "C"	N	Widen Phase Guys

The modifications are based on the current Project design and may change as engineering and constructability revi
Structure types referenced are as follows: "Type C, D, and E" = three-pole angle design ; "Type F" = three-pole de

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:
In assessing the Non-Transmission Alternative of generation and demand resources, CL&P states that the "combination NTA reduced the number of violations significantly" on page 13-43 ofVol.IA. Did ICF consider this combination NTA with a potentially shorter transmission line route as a solution to the remaining severe violations?

Response:

No. Within the context of this study ICF did not consider combinations of non-transmission resources and modified transmission configurations as potential solutions to the remaining severe violations. However, ICF is in the process of assessing the performance of a modified transmission option in which the segment of the Interstate Project from Millbury to West Farnum is not constructed. This work is currently underway.

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:
Are renewable generation projects within the northeast considered in the power flow analyses?

Response:

Yes. Renewable generation projects which have obtained ISO-NE Proposed Plan Application (PPA) approval to interconnect under Section I.3.9 of the ISO-NE Tariff and have cleared a ISO-NE Forward Capacity Auction are included in the power-flow analyses. In addition, although it has not qualified for a ISO-NE Forward Capacity Auction, Cape Wind, which has PPA approval, was included in the dispatch for the east-to-west analyses as a proxy for future generation in the east.

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:
What noise emissions are associated with the installation of the proposed transmission lines? Would CL&P notify nearby property owners of the planned schedule of installation?

Response:

Various construction-related activities will occur at different times of the project's construction. Noise-producing activities that would occur along the right-of-way, along with the various pieces of equipment that would be used during construction, are listed in a table on page 3 of 4. Page 4 of 4 provides the range of noise levels for typical construction equipment at 100 feet from the equipment. The noise impacts of line construction activities can vary considerably based on the proximity of residences or businesses to the activities. None of the equipment will operate directly at a residence, and a distance of 100 feet is a conservative choice for most residences along the right-of-way. Lower sound levels will occur at greater distances.

The equipment listed on page 3 of 3 will be used at various times and for various amounts of time, and most activities would not occur at the same time or location. The construction phases will not typically occur simultaneously but rather sequentially, often separated by periods of no construction. CL&P expects that the maximum sound level during any of these activities could be between 80 and 90 dBA at 100 feet for a short duration.

Construction noise levels would quickly drop similar to the sound of a car passing by. Sound levels for this typical construction equipment are expected to generally be in the 60 to 70 dBA range (similar to noise levels along a busy street) for areas where activities are occurring at distances greater than 100 feet away. For reference, a lawn mower will produce 70 dBA at 100 feet away, or 95 dBA at 3 feet. Normal speech is typically 65 dBA at 3 feet.

Noise associated with construction activities will have a temporary impact on the residences adjacent to those activities. There will be times when residents will experience sounds that would be considered loud. These sounds, however, will be temporary in nature. Depending on the activity this could be only momentary (e.g., installation of implosive connections) or over several days (e.g., foundation drilling). Once construction activities have stopped, the sound levels nearby would return to the existing ambient sound levels. Sound levels from any use of implosive conductor connections would exceed the values on page 4 of 4 for construction equipment but for a very short duration. The Project would not propose the use of implosive connectors when homes or buildings are within 300 feet of the construction site.

CL&P conducted extensive community outreach during the siting phase and will continue these efforts throughout the construction phase of the Project. The Project has an established toll-free number, dedicated email address, and comprehensive web site that will also continue to be used during the construction process. During construction, the web site will be updated weekly and will provide information on the town-by-town construction activities taking place that week.

Construction notifications will begin prior to the start of construction and will continue on a regular basis throughout the construction period. Community outreach in support of construction will include notifications to local residents or businesses (retail, commercial or industrial) on or adjacent to the Project right-of-way, as well as those nearby who are not direct Project route abutters but who may be affected (visually or audibly) by the Project.

Notifications will include what to expect during the construction process, Project contact information, and the Project website address. Other types of notifications will include a combination of mass media, mailings (e.g., brochures and/or postcards), emails, face-to-face meetings and door hangers. Notifications will be made at each key stage of construction, including but not limited to:

- Right-of-way clearing and work area preparation (access roads, crane pads)
- Structure foundation installation and new structure installation
- Wire stringing (may include use of helicopter, and implosive connections)
- Restoration

Additionally, public open houses are held prior to the start of construction to explain the design and provide details on the construction plan and process. Dedicated community relations representatives will be assigned to the Project and have the responsibility for the day-to-day outreach and interactions with residents affected by the construction process.

Construction Phase	Typical Equipment/Materials Required
Establish erosion and sediment controls	• Pickup and other small trucks
Clear for new access roads or improve existing roads	• Flat-bed truck • Brush hog • Bulldozer • Bucket trucks for canopy trimming • Wood chipper • Side booms, fork lifts and cranes to handle materials
Construction of new access road or improve existing roads to provide a travel way of at least 15 to 20 feet in width	• Bulldozer or front loader • Pickup or stake-body trucks for culverts, etc. • Dump trucks for crushed stone or gravel • Pickups or stake-body trucks for culverts • Mat installer for wetland mats • Roads may be wood, gravel, or matted; using culverts or crushed stone for wet areas; roads may be temporary or permanent. Roads must have sufficient width and capacity for heavy construction equipment, both over-the-road and off-road vehicles, including oversize tractor trailers. The need for access for flat-bed trailers and concrete truck often determines the scope of access road improvements. Road grades must be negotiable for over-the-road trucks; 10 percent maximum, and less if wet weather or surface conditions provide traction problems. Vehicles with tracks or tires are used.
Preparation of off-ROW staging and laydown areas	• Same equipment for access road construction will be used. • Establish field office trailers, sanitary facilities, and parking areas, as well locations for material and equipment storage.
Preparation of work area at sites of existing and new structures	• Same equipment for access road construction and staging area preparation will be used. • Reel trailers to haul out old conductors • Trucks to haul out old hardware • Flat-bed trucks with a crane to pick up loads • Trucks with welding equipment to cut steel supports or components • Dump trucks to haul smaller components
Construction of new line	• Same equipment for access road construction and staging area preparation will be used with addition of caissons for foundations, flat-bed trucks for structure components, auger, excavator, cranes, other trucks for reinforcing rods, concrete trucks for structures requiring concrete pads or foundations, bucket trucks and hardware, conductor reels, and conductor pulling rigs. Dump trucks are needed for the foundation work if excess excavated material has to be removed from the ROW. In wet conditions or if groundwater is encountered, the water is pumped to a temporary settling basin with erosion and sedimentation controls including geotextile fabric, silt fence, hay bales and crushed stone. As with all other activities, this would have to comply with any applicable regulation.
Removal of existing line (if applicable)	• Bucket trucks for dismantling existing lines, with reel trailers to capture and store old conductors, trucks to remove old hardware, flat-bed truck with crane to remove structures, trucks with welding equipment to cut steel supports or components, stake or dump trucks to remove smaller components. To minimize wetland impacts or to access structures with challenging topography, helicopter may be used for removal.
Restoration	• Pickup and other small trucks. • All debris is to be removed from the ROW for disposal; but brush may be piled, scattered, or chipped. Disturbed ground is back bladed to its pre-construction contours unless directed otherwise. If the work site is in an agricultural field, the soil can be de-compacted by disking. Erosion controls are left in place until vegetation is established. Steep areas are stabilized with jute netting or pre-made erosion control fabric containing seed, mulch, and fertilizer. Access roads where culverts or crushed stone fords were installed will be left in place or removed as directed by the regulatory authorities in accordance with permit/certificate conditions.

Typical Construction Equipment Noise Levels at 100 feet from Source

Generic Construction Equipment	Range of Noise Levels (dBA)
Backhoes	68 - 86
Compacters (Rollers)	67 - 70
Compressors	67 - 80
Concrete Mixers	70 - 82
Cranes (movable)	64 - 88
Dozers	59 - 89
Front Loaders	71 - 90
Generators	65 - 77
Graders	66 - 85
Jack Hammers and Rock Drills	74 - 92
Pavers	79 - 81
Pumps	63 - 65
Scrapers	70 - 89
Tractors	71 - 89
Trucks	77 - 90

1.Values adapted from FHWA Highway Construction noise (http://www.fhwa.dot.gov/environment/noise/highway/hcn06.htm) and the HEARS database

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:
How long into the future would the proposed project be adequate to satisfy area requirements?

Response:

The Interstate Reliability Project is designed to provide adequate transmission transfer capability into Connecticut and across the New England East - West and West - East interfaces over the ten-year ISO-NE planning horizon through 2022. CL&P expects that higher transfer capability and system benefits from the Project will continue over the useful life of the facility. However, the regional transmission system planning process in New England will require that further studies be conducted in the future if projected levels of generation, load and/or demand response change significantly. These future studies would determine if additional enhancements or modifications to the transmission network are needed.

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:
In determining need for the proposed project, were the NRG generating plant in Meriden and the GE Financial generating plant in Oxford assumed to be in service? If not, how would need for the proposed project change if those two plants were in service?

Response:

No. For the purpose of need and solution studies, the NRG Meriden plant and the GE Financial plant in Oxford ("Towantic") were not modeled. The ISO-NE Attachment K process to determine need requires modeling of only generating units that clear the ISO-NE Forward Capacity Auction ("FCA") or that are supported by contracts. NRG Meriden and Towantic have not reached these milestones.

NRG Meriden and Towantic each requested an interconnection study from ISO-NE and subsequently received technical approval from ISO-NE under Section I.3.9 of the ISO-NE Tariff. However, many years have since passed and each project has failed to complete construction. Towantic has not received ISO-NE qualification eligibility for any annual auction. The NRG Meriden project has sought and obtained ISO-NE qualification eligibility for previous FCA's but did not qualify for the current FCA6 for the years 2015-16. Through ISO-NE's FCA5, NRG Meriden has not "cleared" the auction and has not received payments as a capacity resource.

Uncertainty as to the continued development and construction of the NRG Meriden plant warrants it not being dispatched as a power-supply resource in the regional power-flow base cases. Towantic recently filed for termination from the ISO-NE queue in 2012 and subsequently re-applied to undergo the study process again and obtain a new technical approval.

These generation additions in Connecticut, absent any offsetting resource retirements, would increase the amount of capacity in Connecticut and delay the need date for additional east-to-west transfer capability and Connecticut import capacity. However, this new generation would add to the supply in the west if not offset by the retirement of older, less efficient generation in Connecticut, and its export to serve eastern New England loads would exceed the west-to-east transfer limit. The addition of this new generation does not alleviate the need to increase the west-to-east transfer limit. Furthermore, if this new generation in the west caused less efficient generation in the east to retire, there would be a greater need to increase the west-east interface transfer capability.

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:
Provide the per capita electric usage for 2000 and 2010 for the northeastern Connecticut area and the entire State of Connecticut.

Response:

For this response, we define the northeastern Connecticut area as including the following towns/cities: Andover, Ashford, Bolton, Brooklyn, Canterbury, Chaplin, Columbia, Coventry, Eastford, Ellington, Hampton, Killingly, Lebanon, Mansfield, Plainfield, Pomfret, Putnam, Stafford, Scotland, Somers, Sterling, Thompson, Tolland, Union, Vernon, Windham, Willington and Woodstock.

The table below contains the per capita electric usage (kW-hr/capita) for CL&P and northeastern Connecticut.

Year	CL&P	Northeastern Connecticut
2000	8,525	6,845
2010	8,299	6,260

The per capita electric usage was lower in 2010 than in 2000. However, there are presently more residential households in northeastern Connecticut, and despite the reduction in the per capita consumption of electricity, the peak load demand for electricity during this same period in northeastern Connecticut, as well as in the remaining portion of the state served by CL&P, has increased.

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:
Provide projected peak demand and mean demand for 2015, 2020 and 2025.

Response:

The projected peak demand and mean demand in Connecticut and New England for 2015, 2020 and 2025 are contained in the table below. The peak demand data was obtained from the 2011 ISO-NE Capacity, Energy, Loads and Transmission (CELT) Report and is representative of the 90/10 forecast. The ISO-NE 2011 CELT forecast includes only projected peak demands for the years 2011 to 2020. To forecast the 2025 peak demand, the CELT growth rate for the years 2019 to 2020 was applied for the years 2021 to 2025. The mean demand data was then calculated using the 2011 CELT forecasted hourly load for 2015, 2019 and 2020. To estimate the mean data for 2025, the percent increase from 2019 to 2020 in the CELT Report data was applied to the period between 2020 and 2025.

	Connecticut		New England	
	Peak Demand - MW	Mean Demand - MW	Peak Demand - MW	Mean Demand - MW
2015	8,355 MW	4,007 MW	31,705 MW	15,974 MW
2020	8,825 MW	4,148 MW	33,700 MW	16,656 MW
2025	9,263 MW	4,275 MW	35,586 MW	17,311 MW

Witness: CL&P Panel
Request from: Connecticut Siting Council

Question:
How would the proposed project recover its costs? Have any costs ($/kWh) been calculated?

Response:

CL&P's goal in planning, designing, and siting its transmission facilities is to ultimately construct facilities that are eligible for regional cost support under the principles set forth under Schedule 12C of the ISO-NE Inc. Transmission, Markets and Services Tariff and ISO-NE's Planning Procedure No. 4.

CL&P can recover its transmission costs that ISO-NE allows to be regionalized in the ISO-NE Inc. Open Access Transmission Tariff. Regionalized project costs recovered under this Tariff are billed out to all New England load based on each individual company's monthly peak load.

If ISO-NE deems a portion of this transmission project's costs to be "localized" costs, then CL&P can recover its localized transmission costs from a designated set of customers as specified under Schedule 21-NU of the ISO-NE Inc. Open Access Transmission Tariff. However, prior to CL&P billing any of these localized costs to its customers, CL&P is required to make a Section 205 Rate filing to seek FERC approval to recover the localized costs from a designated set of customers. Following FERC approval, CL&P would then submit a Transmission Adjustment Clause filing with the Connecticut Public Utilities Regulatory Authority to recover these wholesale transmission costs through its retail transmission rate.

In its application in this docket, CL&P provided a cost estimate for the Connecticut portion of the project of approximately $218 million. This proposed project's estimate includes $4.3 million of potential localized costs for EMF mitigation along the proposed route (reference the response to Data Request CSC-01, Q-CSC-007). For the calculation in the following paragraph, we assumed $4.3 million of localized cost recovery from Connecticut customers only.

The estimated incremental CL&P retail rate impact for the CL&P portion of the project is approximately $0.00034/kWh (i.e., CL&P's estimated first-year revenue requirement of $7.4 million divided by 22,151,826 MWh of projected billed sales in that year). This incremental retail rate impact for a 700-kWh Rate 1 residential customer would be a $0.24 increase to an average monthly bill of $123.61.

The estimated incremental CL&P retail rate impact for the National Grid portion of the project (assuming 100% regionalization) is approximately $0.00043/kWh (i.e., CL&P's estimated first-year revenue requirement of $ 9.4 million divided by 22,151,826 MWh of project billed sales). This incremental retail rate impact for a 700-kWh Rate 1 residential customer would be a $0.30 increase to an average monthly bill of $123.61.

The entire Interstate Reliability Project will therefore have an incremental retail rate impact of approximately $0.54 per month for a 700-kWh Rate 1 residential customer.