

*Seacoast Reliability Project*  
*Need and Proposed Solution*

*Madbury Planning Board Meeting*  
*February 4, 2015*

- **Reliability in the NH Seacoast**
- **Project Need and Overview**
- **Selecting a Transmission Route**
- **Proposed Route**
- **Environmental Considerations**
- **Regulatory Permitting/Approval Process**
- **Opportunities for Public Participation**
- **Community Outreach**
- **Contact Information**

- **Reinforcing our infrastructure** to ensure an adequate and reliable energy supply is one of the most critical issues facing our state and all of New England.
- Eversource is making over \$330M in **investments in our electric infrastructure** across the state, to improve or supplement our existing system—including transmission and distribution system upgrades for the Seacoast area.
- **Seacoast Reliability Project**, a new \$70 million 115kV transmission line connecting the Madbury and Portsmouth substations, is a key piece among a suite of projects that are part of the Seacoast Solution. The suite of projects are needed to support the reliable delivery of electric power to meet the region's current demand and support the region's future economic growth.

- The Seacoast Region's electric demand is **growing at twice the rate** of any other region in the state, and is expected to represent approximately 25% of New Hampshire's electric demand in 2020.
- The electric transmission system serving the Seacoast Region **does not meet both thermal and voltage planning criteria**, putting the reliability of the system at risk even at today's electrical demand levels.
- If these criteria violations are not addressed, the risk of system overloads could lead to **power outages for large groups of customers** in the Seacoast and surrounding area.

The Independent System Operator of New England (ISO-NE) has concluded that:

- The Seacoast Region is in need of additional transmission capacity to support the reliable delivery of electric power to meet the region's current demand.

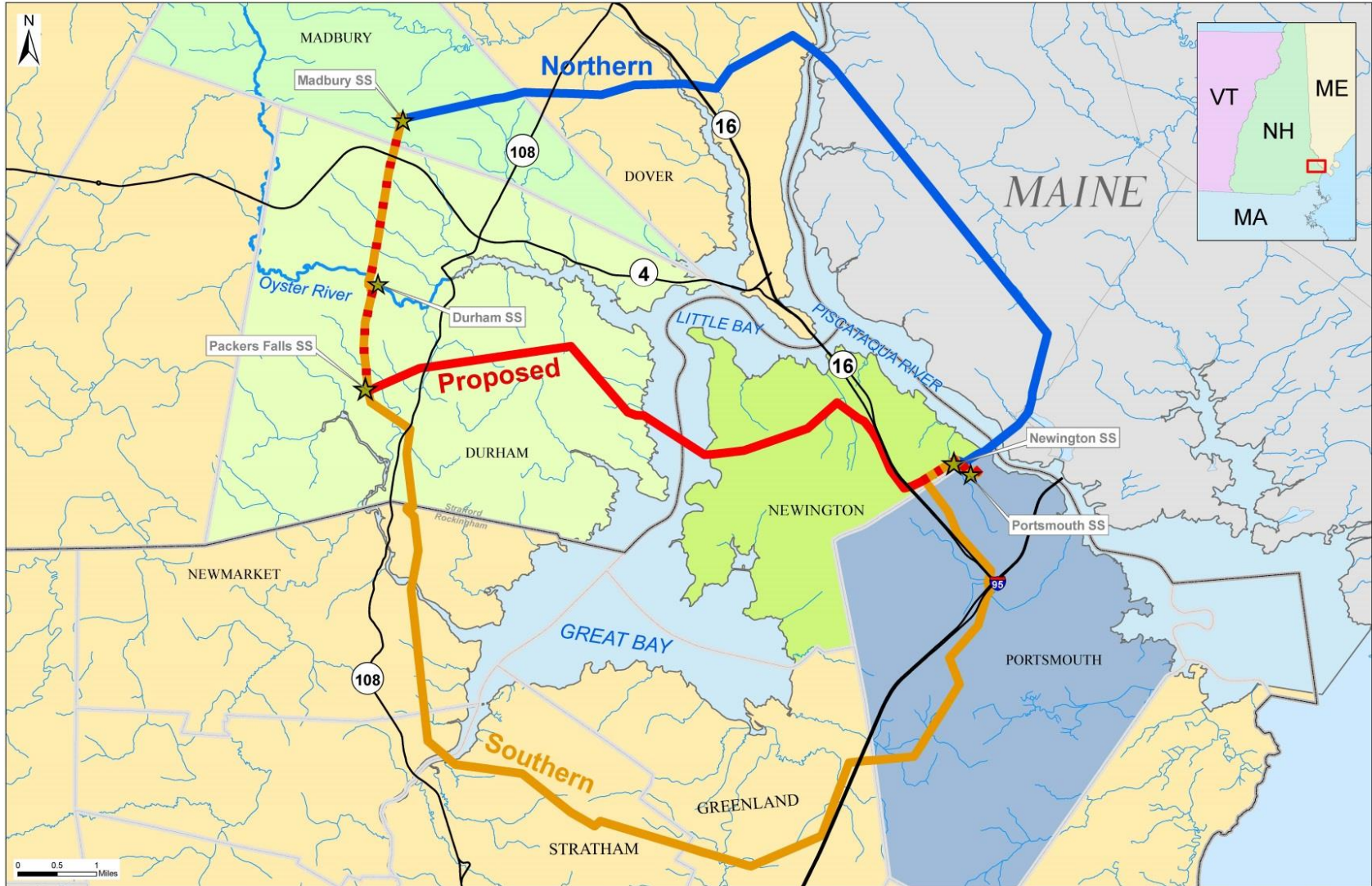
The ISO-NE forecast has been adjusted to account for:

- reduced level of growth in electrical demand from the recent economic downturn,
- the increased use of energy efficiency and demand response in the area, and
- new generation placements

# What We Consider When Selecting a Transmission Line Route

























- **Reliability Benefits/System Operability**
- **Environmental Impacts, including:**
  - Wetlands
  - Endangered species
  - Cultural and/or historical resources
- **Community Impacts, including:**
  - Existing vs. acquisition of easement rights
  - Impacts to residential and business community
  - Existing land uses
- **Cost, including:**
  - Underground vs. Overhead
  - Length of line
  - Regionalized or localized cost recovery
- **Constructability, including:**
  - Existing right-of-way; other options
  - Water crossings
- **Schedule to meet identified reliability need**

# Summary of Route Alternatives Considered \*



\* Does not include variations within primary routes.

# Comparison of Route Alternatives

Selection Criteria	Northern	Middle	Southern
Maximize Use of Existing Linear Corridors			
Minimize Need to Acquire new Land Rights			
Minimize Impacts to Densely Populated Areas			
Minimize Adverse Impacts to Environmental, Cultural and Scenic Resources and minimize Permitting Complexity			
Provide Electrical Reliability			
Improve/Maintain System Operability & Maintenance			
Cost			
Project Schedule			



# Seacoast Reliability Project: Proposed Route



## A new 115-kV transmission line connecting Madbury and Portsmouth substations

- The proposed transmission line is approximately 13 miles long and includes a combination of overhead and underground design in existing Eversource power line corridors traversing portions of the towns of Madbury, Durham, Newington and the City of Portsmouth.
- Overhead line design places both the existing line and the new line on the same structures
- Little Bay crossing will include utilization of specialized marine cable
- No new right-of-way is needed, though it may be necessary to modify some easements to accommodate the underground portions of the line, or to improve the line design or constructability
- The overall project cost is estimated at \$70 million

# Proposed Route through Madbury



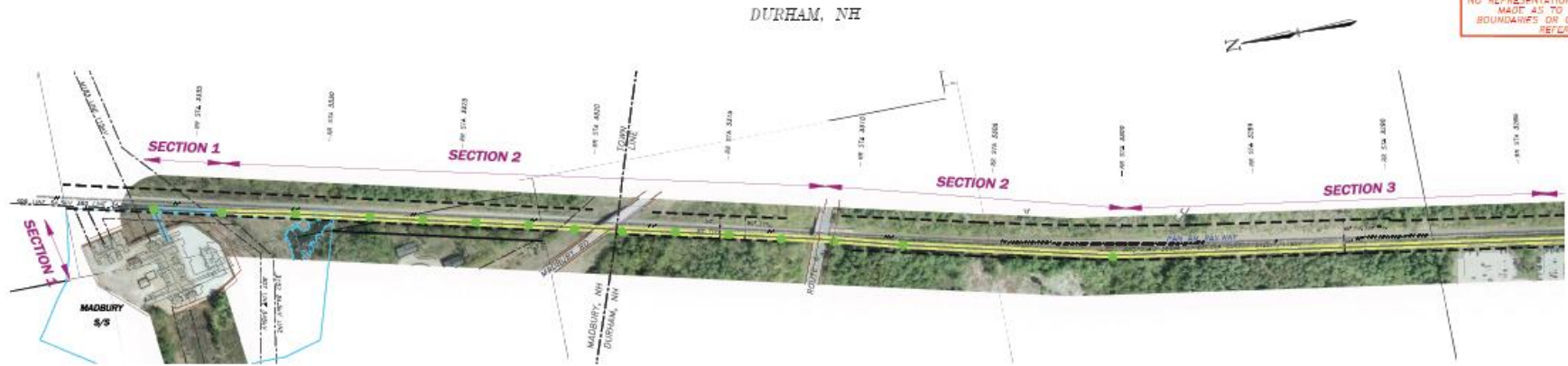
## Proposed Route

- 0.3 miles of 115-kV transmission line
- Begins at Eversource's Madbury Substation
- Overhead line follows existing railroad corridor to the town line
- Approximately 8 new steel monopoles (80 to 110 feet high) will replace the existing wood poles
- Estimated asset value in Madbury is \$3.5M



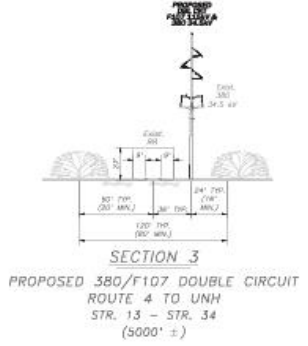
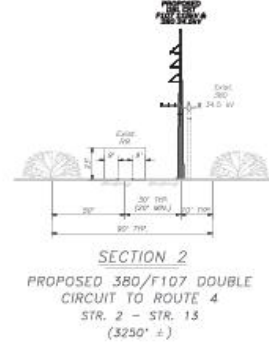
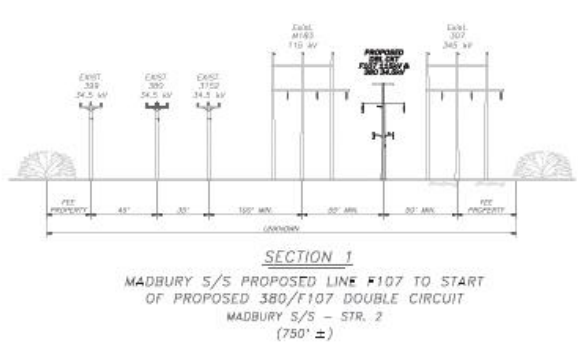
# Madbury Right-of-Way Cross Sections

THIS PLAN FOR REFERENCE ONLY. NO REPRESENTATION OR WARRANTY IS MADE AS TO LOCATION OF BOUNDARIES OR OTHER POINTS OF REFERENCE.



**PRELIMINARY**

FILE NO:	DATE:	PROJECT:	SCALE:
NO.:	BY:	DATE:	BY:
<input checked="" type="checkbox"/> Northeast Utilities Transmission Division		MADBURY S/S TO PORTSMOUTH S/S 115KV TRANSMISSION LINE LINE F107 MILE 1	
SHEET NO. 1107-43-801		TOTAL SHEETS 1107-43-801	



- LEGEND:**
- DENOTES R.O.W.
  - DENOTES RAILROAD R.O.W.
  - DENOTES FINISH FEE AREA
  - DENOTES EXISTING LINES
  - DENOTES PROPOSED 115KV LINE
  - DENOTES PROPOSED 34.5KV/115KV DOUBLE CIRCUIT
  - DENOTES PROPOSED 115KV UNDERGROUND LINE
  - DENOTES PROPOSED SELF-SUPPORTING STEEL POLE

- The current proposed Project route is intended to occupy an existing electric utility right-of-way corridor and existing railroad corridor.
- Eversource identifies environmental conditions and resources such as:
  - soils
  - water resources
  - wetlands and water quality
  - vegetation and wildlife
  - and threatened or endangered species habitat areas
- Eversource is committed to constructing the Project in an environmentally acceptable manner that will meet all the expectations of our regulators and will avoid long-term adverse impacts.
- During the various stages of the project, Eversource will work with state and federal environmental agencies to establish work methods that eliminate, or minimize, the impact to these resources.
- The majority of the environmental impact of the Project will be temporary and limited to the construction phase. Once constructed, the Project right-of-way will provide beneficial scrub/shrub and grassland habitats.







A Project requires an Application for a Certificate of Site and Facility to construct, operate and maintain an electric transmission line from the New Hampshire Site Evaluation Committee (SEC) if it meets the following criteria:

- ✓ Transmission Line Projects > than 100-kV , *and*
- ✓ > 10 miles long, *and*
- ✓ over a route not already occupied by a transmission line, *or*
- ✓  
over 200-kV, regardless of length or location

**Based on these criteria, the Seacoast Reliability Project requires SEC approval.**

# SEC Application Process and Public Participation Opportunities

*Schedule Is Estimated and Subject to Change*

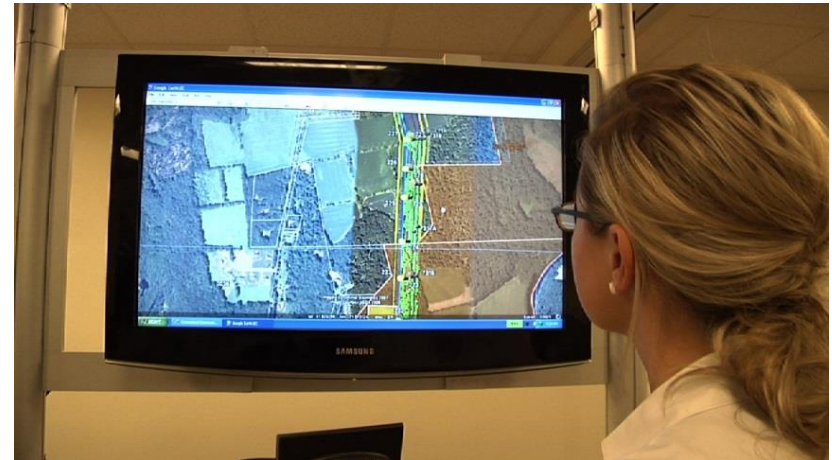
Opportunities for Public Participation	Activity	Q4 '14	Q1 '15	Q2 '15	Q3 '15	Q4 '15	Q1 '16	Q2 '16	Q3 '16
	Initial Project Update to Municipal Officials	█	█						
	Pre-Application Public Information Sessions (2)		█						
	File Application			█					
	SEC Accepts Application			█					
	Post-Application Public Information Sessions (2)			█					
	SEC/Agency Joint Public Hearings				█				
	SEC Hearings					█	█		
	SEC Decision						█		
	Start of Construction*								█
	Stakeholder Outreach	█	█	█	█	█	█	█	█

\*Pending Timing of SEC Decision  
Project Projected In Service Date: Q1 2018



- **Step 1:** At least 30 days prior to filing an Application with the SEC, Eversource will host two public information forums (and open houses), which describe and discuss the proposed project, one in each affected County.
- **Step 2:** Within 45 days after the Application has been reviewed and accepted by SEC, Eversource will host two additional public information forums, to describe and discuss the proposed Project, one will be held in each affected County.
- **Step 3:** 90 days after the acceptance of the Application, the SEC will hold additional public hearings, which will include questioning of the Applicant.

- Immediately prior to each SEC public information session, Eversource will host a Project Open House for the public to learn more about the proposed Project and public opportunities to participate in the regulators' consideration of the Project.
- Notification about the Open Houses (date, time, location, purpose) will be sent to municipal officials, other elected representatives of the Seacoast Region, residents who live along and near the proposed Project route, and other interested parties as appropriate.
- At the Open Houses, Project representatives and subject matter experts will be on hand to answer questions from attendees, and offer informational materials, including a Project video, have Project-specific information and kiosks (including Google Earth to view specific properties on or near the Project route) to provide Project information.





## Stakeholders

- Municipal officials
- State and federal elected officials and regulators
- Regional Planners
- Property owners & tenants
- Businesses
- Community Groups

## Project Communication for Municipalities

- Briefings & Presentations
- E-mail updates

## Public

- Transmission 1-800 Hotline
- Project Website and contact email address
- Community Meetings/Open Houses
- News Releases/Media Advisories
- Door hangers
- Letters



**Project Manager**

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**Project Hotline**

**1-888-926-5334**

**Project website (under construction):**

**[www.transmission-nu.com](http://www.transmission-nu.com)**

**Project Email:**

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