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## *Seacoast Reliability Project* *Need and Proposed Solution*

Newington Planning Board

January 29, 2015



- 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.

- **Reliability in the NH Seacoast**
- **Project Need and Overview**
- **Selecting a Transmission Route**
- **Proposed Route**
- **Alternative Routes through Newington**
- **Discussion of Little Bay, Gundalow Landing and the Frink Farm**
- **Environmental Considerations**
- **Regulatory Permitting/Approval Process**
- **Opportunities for Public Participation**
- **Community Outreach**
- **Contact Information**

# PSNH's commitment to statewide energy infrastructure improvement



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- **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.
- **PSNH 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 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

The system upgrades that are needed are separate and unrelated to NPT.

# What We Consider When Selecting a Transmission Line Route



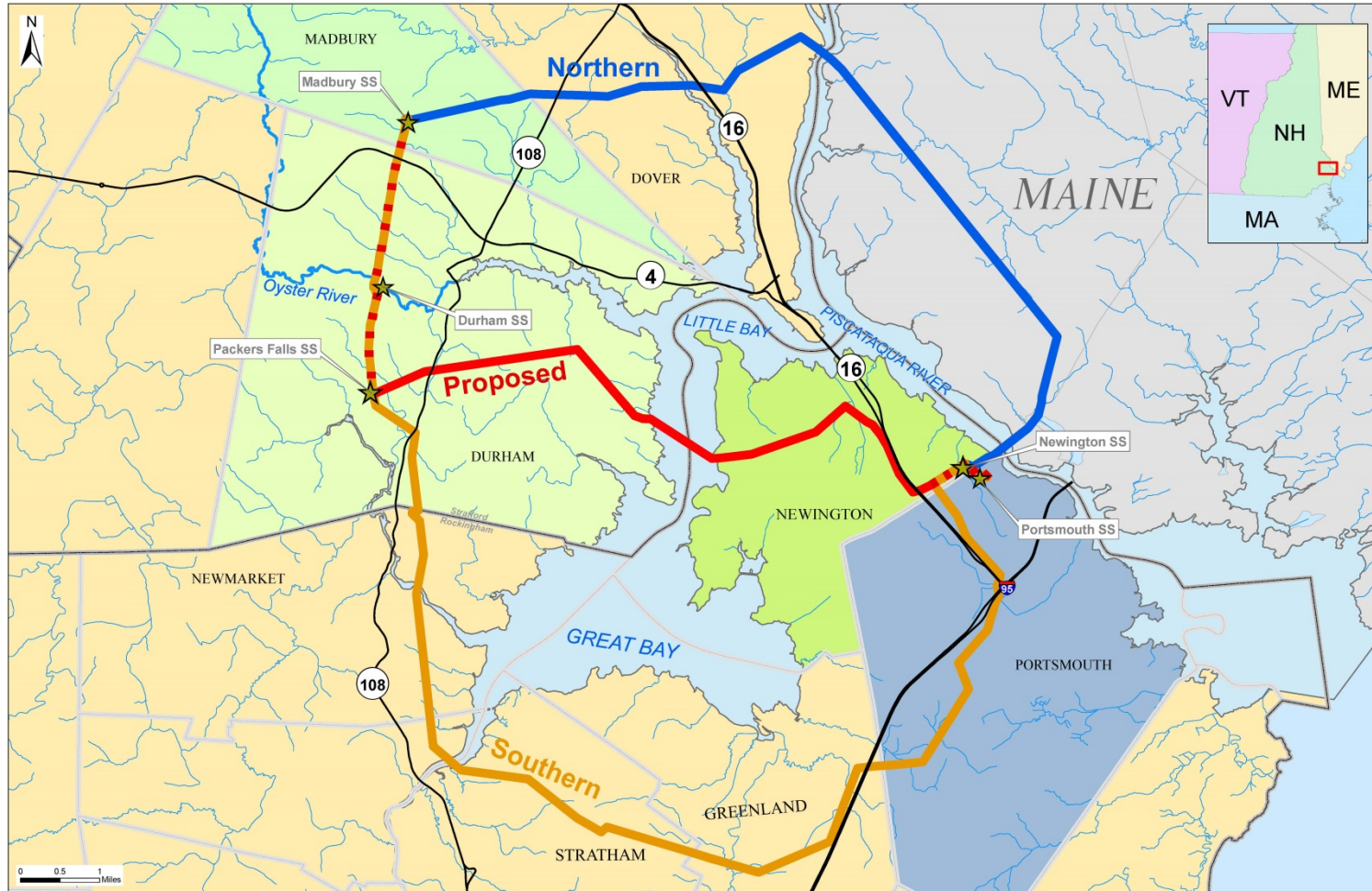
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- **Reliability Benefits/System Operability**
- **Environmental Impacts, including:**
  - Wetlands & Wildlife
  - Endangered species
  - Cultural and/or historical resources
- **Community Impacts, including:**
  - Existing vs. acquisition of easement 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 \*



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\* Does not include variations within primary routes.

# Comparison of Route Alternatives



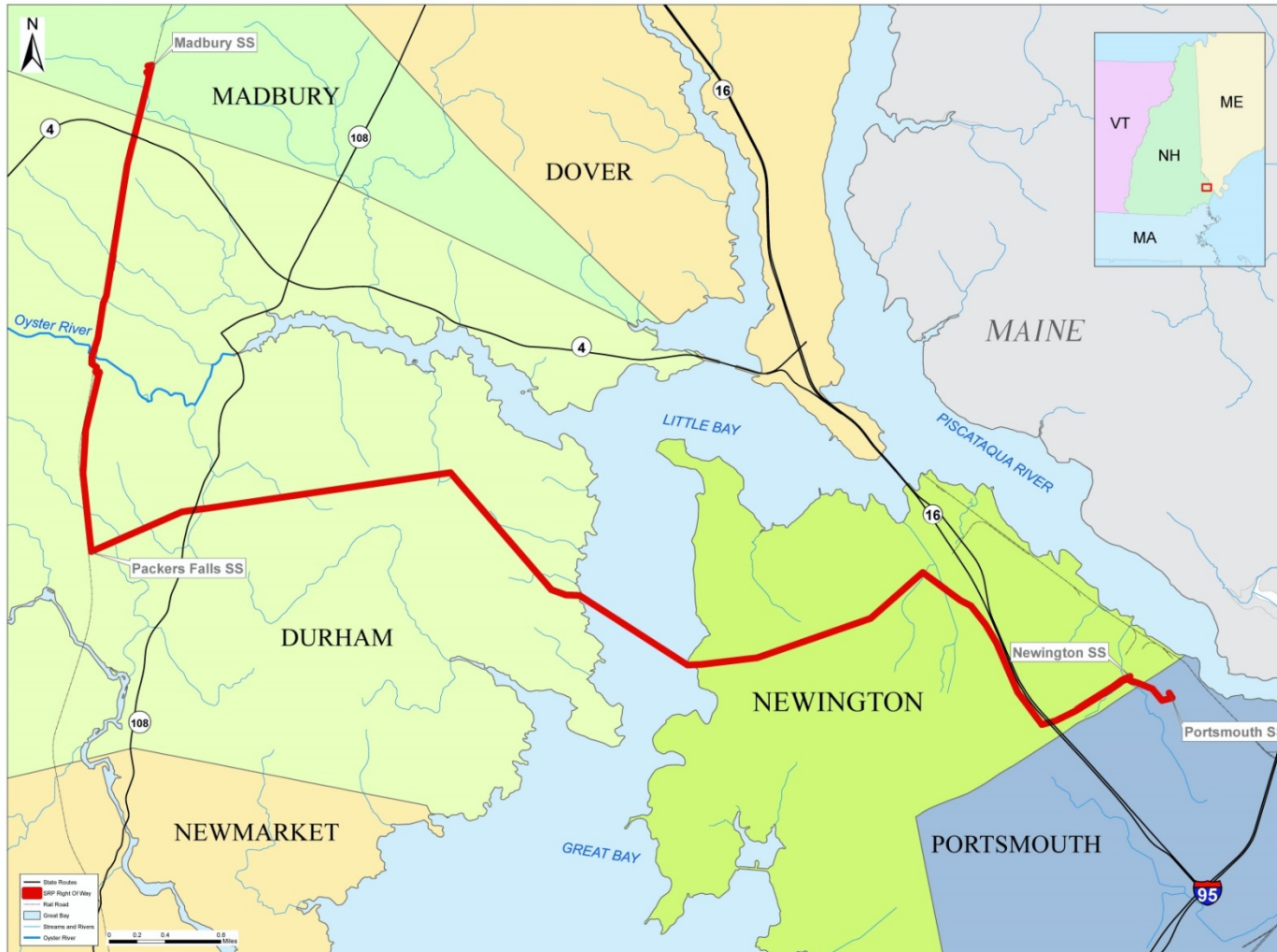
Selection Criteria	Northern	Middle	Southern
Maximize Use of Existing Linear Corridors			
Minimize Need to Acquire new Land Rights			
Minimize Impacts to Densely Populated Areas			
Minimize Adverse Impacts to Environmental, Cultural and Scenic Resources and minimize Permitting Complexity			
Provide Electrical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



# Seacoast Reliability Project : Proposed Route



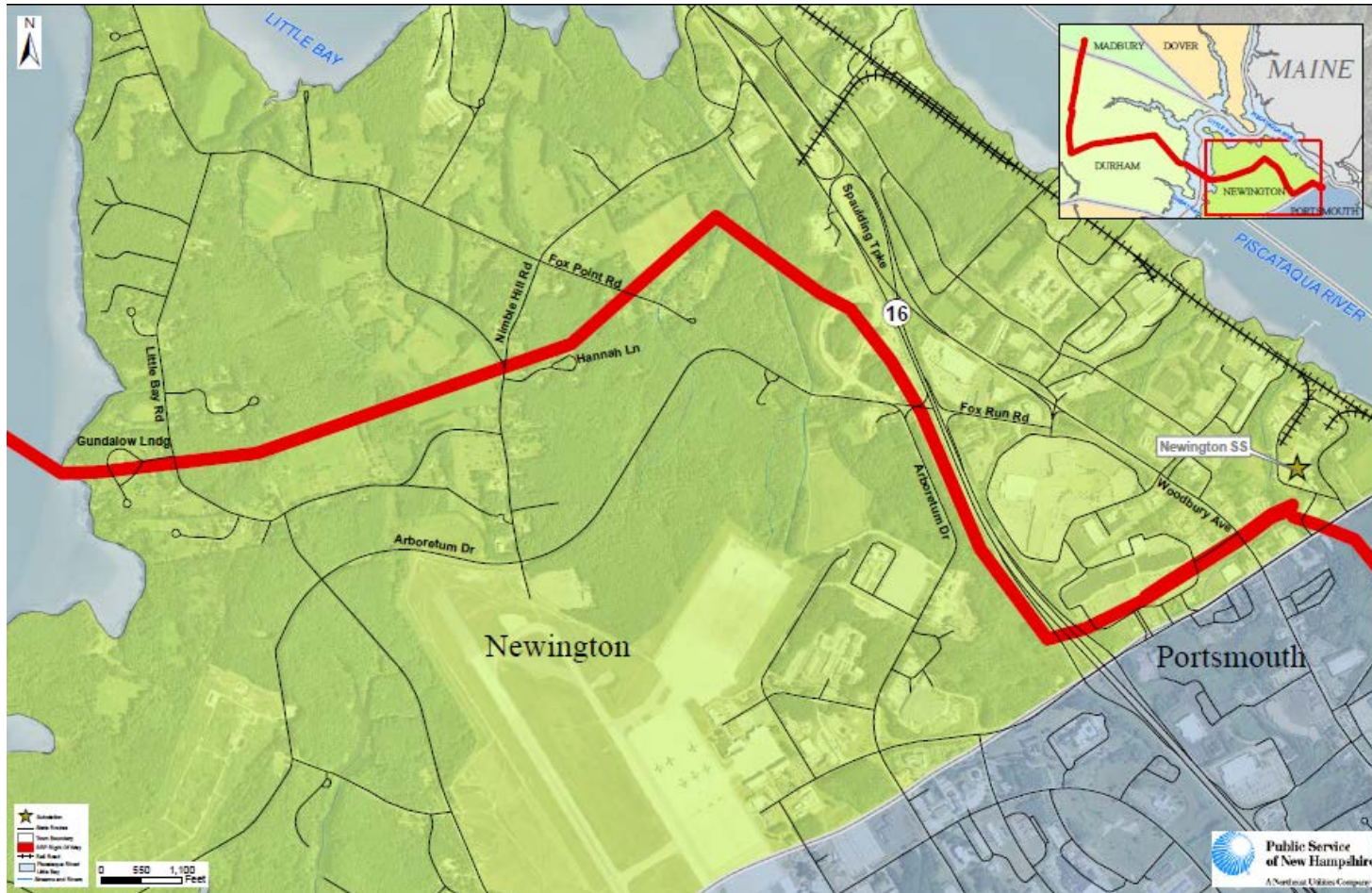
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## A new 115-kV transmission line connecting Madbury and Portsmouth substations

- The proposed transmission line is approximately 13 miles long and includes a combination of overhead and underground design in existing PSNH 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 Newington



## Proposed Route

- 4 miles of 115-kV transmission line
- Begins at the east shore of Little Bay
- Continues underground to Little Bay Road
- Approximately 50 new laminated wood or steel monopoles (85 to 100 feet high) will replace the existing wood poles.

# Other Alternate Newington Routes Considered



## **National Wild Life Refuge – Alt 1: Little Bay – Welsh Cove – National Wildlife Refuge – PDA/Arboretum Dr.**

- USFWS / Great Bay National Wildlife Refuge would not consider a route across their property
- Creation of a ROW or any type of open area is not conducive to the habitat that the NWR is trying to create. A ROW is required for overhead or underground crossings.

## **Gundalow Landing – Alt 2: Little Bay- Gundalow Landing – Little Bay Rd. - McIntyre Rd.- PDA/Arboretum Dr.**

- Additional +\$25M for underground construction



- Underwater crossing begins at a transition structure at the west shore of Little Bay within an existing PSNH right-of-way.
- The underwater crossing (consisting of 6 cables) will be within an existing utility corridor currently occupied by de-energized distribution cables.
- Construction will have limited and temporary environmental impacts to the Bay and no long-term adverse affect on the health and well-being of the Bay.

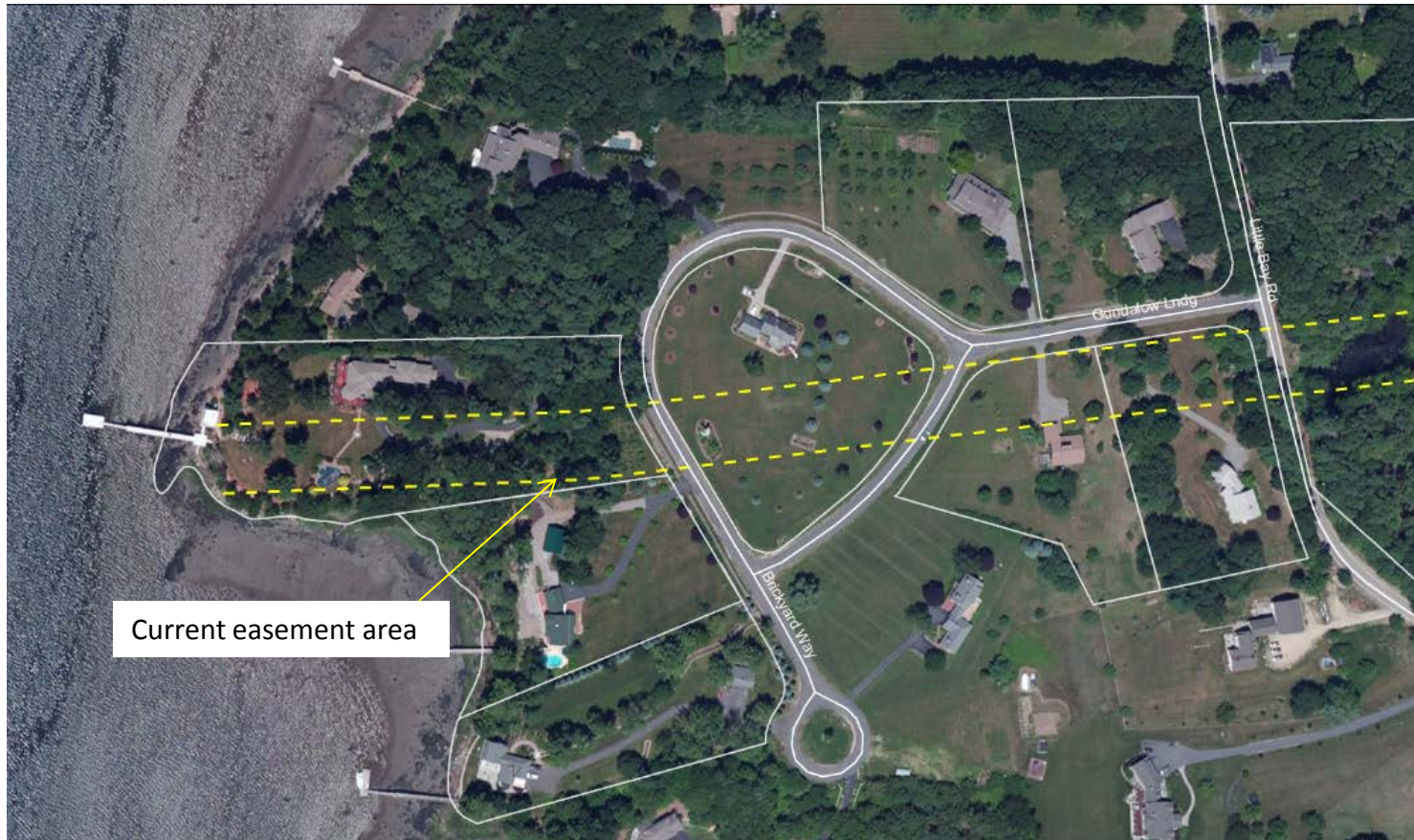
# Seacoast Reliability Project: Little Bay Crossing



# Seacoast Reliability Project: Gundalow Landing



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## Gundalow Landing Line Design

- Underground to Little Bay Road



## Frink Farm Line Design

- Initial Line Design
  - Double Circuiting Transmission with Existing Distribution
- Preferred Design/Under Review
  - Moving Existing Distribution road-side to allow for more flexibility in Transmission Line Design through the Farm
- Expect to have discussions with the owner of Frink Farm.



- The current proposed Project route is intended to occupy an existing electric utility right-of-way corridor and existing railroad corridor.
- PSNH identifies environmental conditions and resources such as:
  - water resources,
  - wetlands and water quality,
  - vegetation and wildlife,
  - and threatened or endangered species habitat areas,
  - historic and archeological resources
- PSNH 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, PSNH 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.



# Project Siting/Permitting – SEC Application Required



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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.**

# Public Participation in SEC Process



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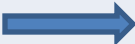






- **Step 1:** At least 30 days prior to filing an Application with the SEC, PSNH will host two public information forums (and open houses), which describe and discuss the proposed project, one in each affected County.
- **Step 2:** Within 45 days after the Application has been reviewed and accepted by SEC, PSNH 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.

# 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



- **Immediately prior to each SEC public information session, PSNH 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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## **Transmission Project Outreach**

**Sandra Gagnon**

**(603) 634-3181**

**[Sandra.Gagnon@psnh.com](mailto:Sandra.Gagnon@psnh.com)**

## **Project Hotline**

**1-888-926-5334**

## **Project website (under construction):**

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

## **Project Email:**

**[TransmissionInfo@psnh.com](mailto:TransmissionInfo@psnh.com)**