

Sudbury to Hudson Transmission Reliability Project

Stow, Massachusetts Board of Selectmen Presentation

February 23, 2016

Revised 3-24-16

- **Page 4 – revised last bullet on Route Analysis Process.**
- **Page 9 – revised preferred route (overhead) visual simulation (panned to the right to include the house)**
- **Page 10 – revised noticed variation design (underground) visual simulation (panned to the right to include the house)**

- Greater Boston and New Hampshire Energy Solutions
- Sudbury to Hudson Transmission Reliability Project
 - ✓ Energy Solutions
 - ✓ Project Need and Benefits
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 - ✓ Candidate Routes Selected for Scoring
 - ✓ Proposed Project Summary
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 - ✓ MBTA Multi-Use Path & Photo Simulation
 - ✓ Environmental Permitting
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- Proactive Municipal and Community Outreach throughout Project Duration
- Contact Information

- A strong electrical transmission grid is vital to the safety, security, and economic prosperity of the region. The transmission system serves a critical role to ensure that electricity flows with a high degree of reliability to where power is needed.
- In a recent study, ISO-New England, the independent system operator for New England, concluded that there are inadequate transmission resources to serve the electricity needs in the Greater Boston and New Hampshire area.
- To proactively address these deficiencies and the growing customer demands on the electric system, ISO-New England has directed utilities to implement a series of transmission projects as needed.
- One of the projects to come out of the solution to solve the identified system reliability problems is a new power line between existing substations in Sudbury and Hudson.

Sudbury to Hudson Transmission Reliability Project

Project Need & Benefits

The new 115-kV power line between Sudbury and Hudson will provide a separate transmission path to supplement the existing system and address the identified thermal and voltage problems in the area:

- ✓ Hudson Light & Power is currently supplied by two transmission lines from the same substation (National Grid's Northboro Road Substation in Southborough). Adding a 3rd line from a different substation, would provide redundancy to their current transmission supply.
- ✓ Currently, a contingency involving the loss of a double circuit tower would result in loss of power to the Hudson substation.
- ✓ Under other contingencies, the Hudson substation would lose power due to voltage collapse and approximately 550 MW of load would be lost throughout the area.

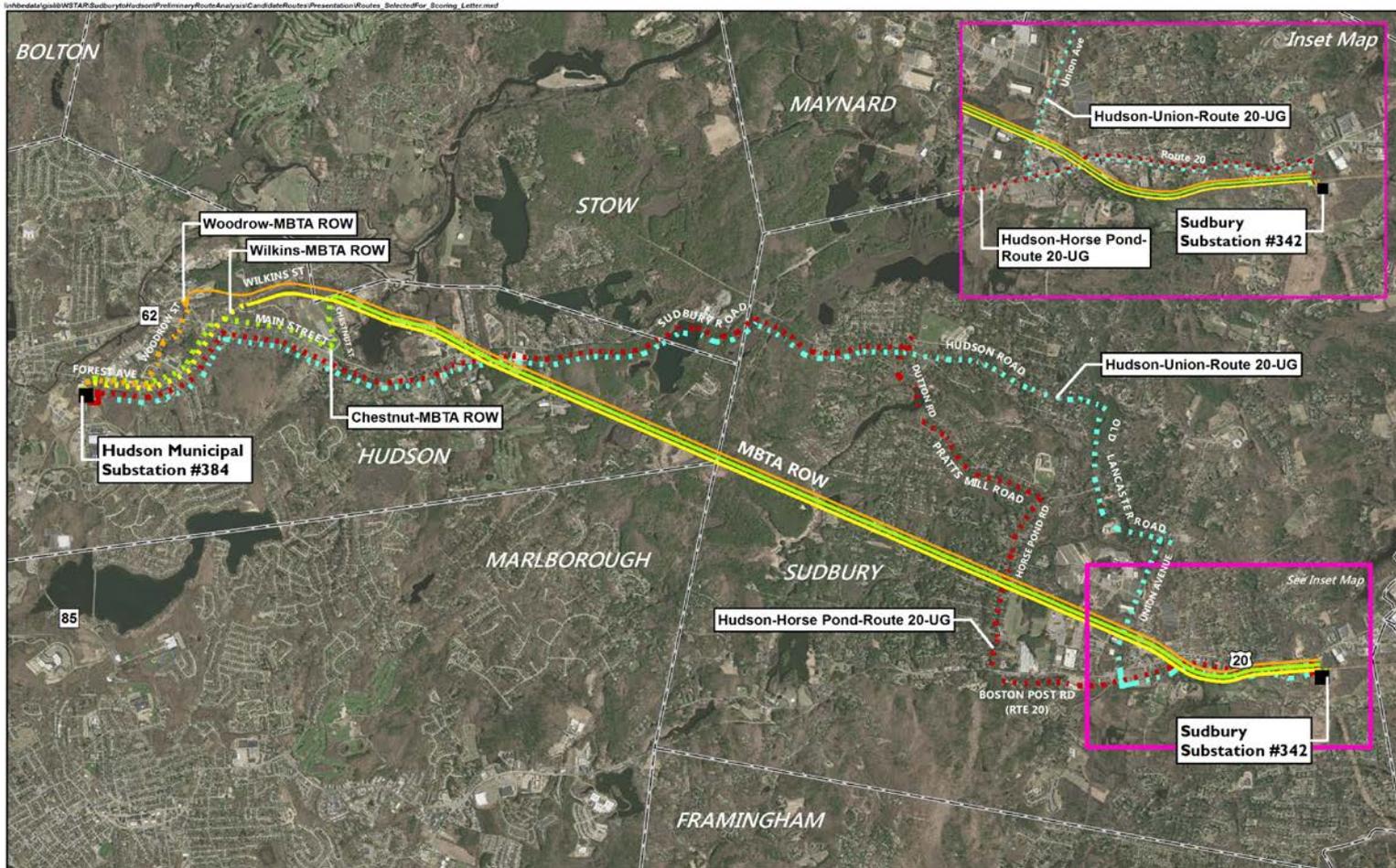
Sudbury to Hudson Transmission Reliability Project

Route Analysis Process

- Evaluations were performed to determine the Preferred and potential Alternative routes.
- Eversource, with environmental consultant VHB, Inc. established route selection guidelines to identify all potentially feasible routes between the Sudbury and Hudson substations.
- Routes with obvious flaws were eliminated.
- The candidate routes were evaluated, scored and ranked by applying detailed environmental, constructability, community impact, and conceptual cost estimate criteria.
- Eversource used the scoring and ranking system to select a Preferred Route and a potential Alternative Route, as previously included in Energy Facilities Siting Board (EFSB) petitions.
- At the November 15, 2015 meeting with the towns of Hudson and Sudbury, it was requested that Eversource evaluate an underground MBTA route.
- Eversource continues to consider alternative routes, including potential Noticed Alternative routes, to ensure that its route selection process is complete and consistent with Siting Board standards.

Sudbury to Hudson Transmission Reliability Project

Candidate Routes Selected For Scoring

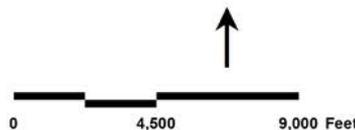


Candidate Routes/Design Options Selected for Scoring

- Wilkins-MBTA ROW-UG ••••• Chestnut-MBTA ROW-UG
- Wilkins-MBTA ROW-OH — Chestnut-MBTA ROW-OH
- Woodrow-MBTA ROW-UG — Hudson-Horse Pond-Route 20-UG
- Woodrow-MBTA ROW-OH — Hudson-Union-Route 20-UG

NOTE: Not to scale. Alignments shown are for graphical purposes only. Lines that appear immediately adjacent to each other should be assumed to follow the same alignment.

Source: MassGIS, VHB



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Proposed 115 kV Line Sudbury Substation 342 to Hudson Municipal Substation 384

Candidate Routes/Design Options Selected for Scoring

DRAFT subject to change

Sudbury to Hudson Transmission Reliability Project

Proposed Project Summary

Install a new 115-kV transmission line between Station 342, Sudbury, MA and the Hudson Light and Power substation in Hudson, MA between the towns of Sudbury, Hudson and Stow, and the City of Marlborough.

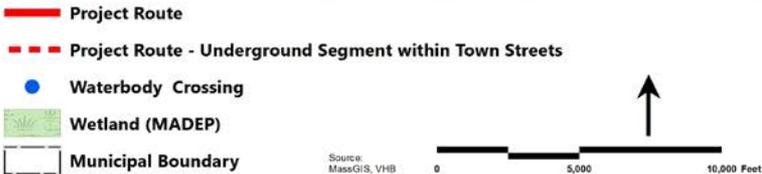
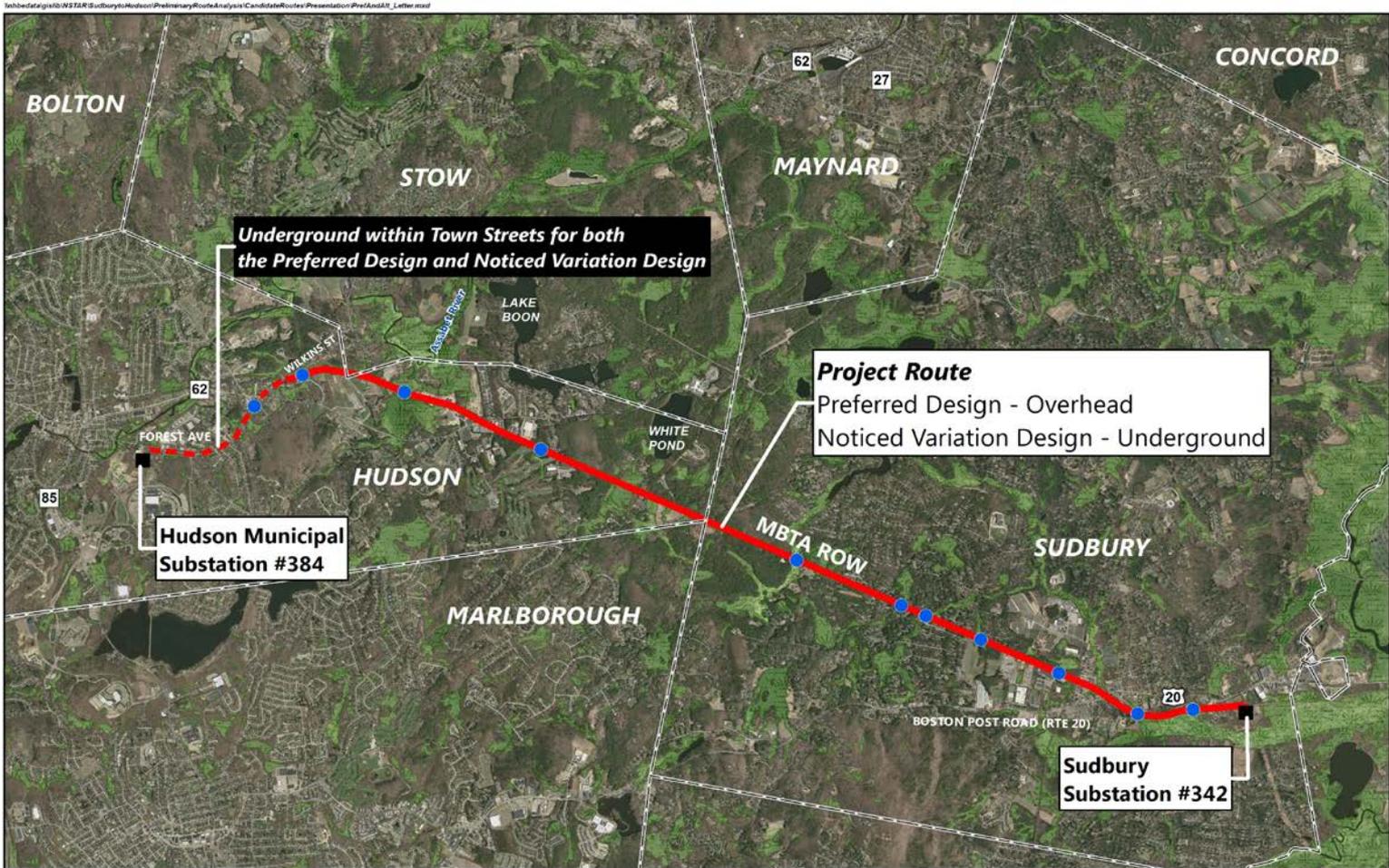
- **Preferred Route :**

- ✓ New overhead line utilizes an existing abandoned MBTA railroad bed (MBTA owned property) which runs adjacent to the Sudbury substation for approximately 7.6 miles into the town of Hudson. The remaining 1.3 miles to Hudson substation will be underground within Hudson city street limits.
- ✓ The total length of the new line is estimated to be 8.9 miles, of which approximately 4.3 miles will be in Sudbury and 4.6 miles in Hudson. The proposed route also includes small portions within Marlborough and Stow.
- ✓ As part of construction of the Project, a 12 foot wide access road will be created which may be used by others as a bike path after Project construction is complete.

- **Noticed Variation Design:**

- ✓ The Noticed Variation Design route utilizes the same route as the Preferred Route above, except the route will be underground in the MBTA owned Right-of-Way.

Sudbury to Hudson Transmission Reliability Project Overview Map



EVERSOURCE
ENERGY

Proposed 115 kV Line Sudbury Substation #342 to Hudson Municipal Substation #384

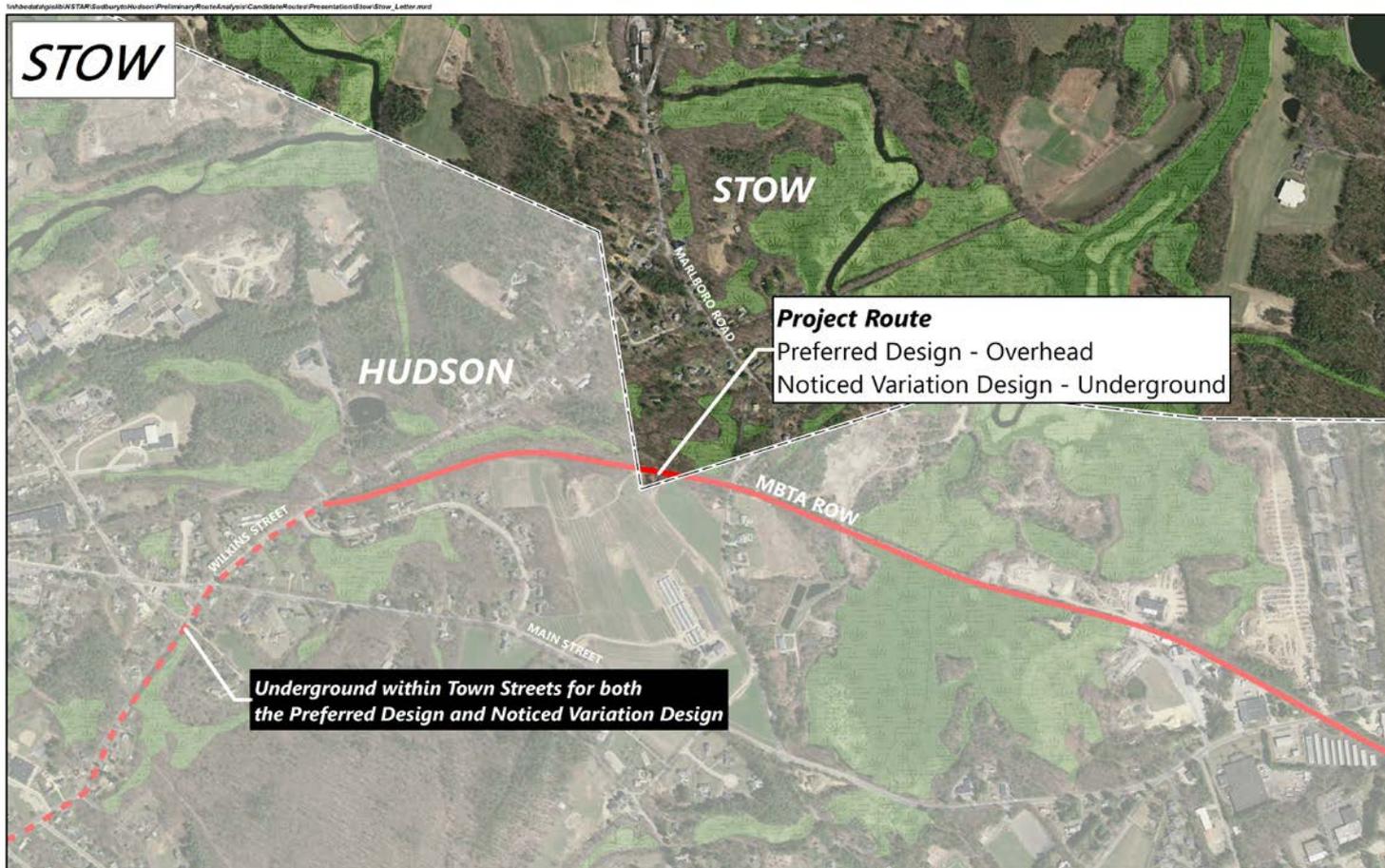
Preferred Project and Noticed Variation

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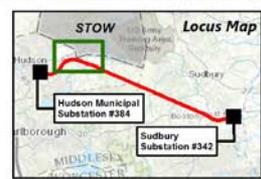
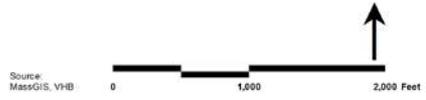


Sudbury to Hudson Transmission Reliability Project

Stow Map (estimated 388 feet)



- Project Route
- - - Project Route - Underground Segment within Town Streets
- Wetland (MADEP)
- Municipal Boundary



Proposed 115 kV Line Sudbury Substation #342 to Hudson Municipal Substation #384

Preferred Project and Noticed Variation

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Sudbury to Hudson Transmission Reliability Project Photo Simulation of MBTA Multi-Use Path

Boston Post Road & Station Road, Sudbury (Facing East)
Sudbury-Hudson Line and Proposed Rail Trail



Sudbury to Hudson Transmission Reliability Project Photo Simulation of MBTA Multi-Use Path

Boston Post Road & Station Road, Sudbury (Facing East)
Sudbury-Hudson Line and Proposed Rail Trail



Sudbury to Hudson Transmission Reliability Project

MBTA Multi-Use Path

The Project intends to coordinate with the proposed rail trail project along the MBTA corridor.

The Project has begun to reach out to the following identified rail to trail organizations to keep them informed of proposed Project:

- Sudbury Valley Trustees (Sudbury-Marlborough)
- Friends of Bruce Freeman Trail (Sudbury)
- Sudbury Greenways (Sudbury)
- Assabet River Rail Trail (Hudson)
- Track Road Committee (Stow)

- Local Conservation Commissions
- State Review and Permitting:
 - MEPA
 - Mass Historic Commission
 - Natural Heritage Endangered Species Program
 - Mass DEP Water Quality
- Federal Review and Permitting:
 - Army Corps of Engineers
 - US Fish and Wildlife Service
 - US Environmental Protection Agency

Sudbury to Hudson Transmission Reliability Project

Next Steps



First Step (ongoing)

Solicit municipal input regarding proposed project and potential routes.

Stow Board of Selectman – February 23

Second Step

Conduct Open Houses to gather community input. All property owners abutting the proposed route will be invited to both open houses.

Hudson Town Hall Auditorium – March 15

Sudbury Town Hall – March 16

Third Step

File an application with the Energy Facilities Siting Board (EFSB) – early Q2 2016

After we file, the EFSB will conduct a local public hearing, offering additional opportunity for community input. Abutters will be notified.

Fourth Step

EFSB issues its Decision – estimated 2017

Construction start (pending approvals) -- 2017

In-Service (pending approvals) – estimated 2019

Stakeholders

- Municipal officials
- State and federal elected officials and regulators
- Property owners & tenants
- Businesses
- Community Groups
- Rail to Trail organizations

Project Communication for Municipalities

- Briefings & Presentations
- E-mail updates

Project Communication for the Public

- Releases/Media Advisories
- Door to door outreach, including door hangers
- Project Hotline: 1-800-793-2202
- E-Mail: TransmissionInfo@Eversource.com
- Project webpage: under development



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