Hingham Municipal Lighting Plant

Hingham Municipal Lighting Plant:
Proposed 115 kV Project

Hingham Community Meeting
October 18, 2021

OBJECTIVES FOR THIS COMMUNITY MEETING

- Introduce the Hingham Electrical Infrastructure Reliability Project to Hingham residents and businesses
- Explain why this 115 kV transmission line project is needed
- Discuss how HMLP selected the Hingham transfer station site for its new substation
- Talk about next steps
- Answer questions
- Obtain valuable community feedback

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PROJECT TEAM

HMLP

LIG Consultants – Engineering and Design

Tighe & Bond – Environmental and Permitting

Cape Power Systems – ISO-NE Advisor

Duncan & Allen NE – Legal and Regulatory

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HINGHAM ELECTRICAL INFRASTRUCTURE RELIABILITY PROJECT

- HMLP proposes to construct a new, approximately 3.7-mile underground 115 kilovolt (kV) transmission line and a new substation primarily to address reliability, and secondarily, to address future capacity needs
- Town of Hingham is currently served by two transmission lines on a single set of towers
- This double-circuit tower configuration is susceptible to contingency events that would result in total loss of supply to Hingham

HINGHAM ELECTRICAL INFRASTRUCTURE RELIABILITY PROJECT

- Proposed new underground line would interconnect with Eversource system in Weymouth and terminate at a new substation at the transfer station site in Hingham located near HMLP's existing Hobart Substation.

- This new 115 kV line – in essence, an additional, independent transmission feed – will protect Hingham customers from the possibility of an extended outage and support the Town's Climate Action Plan (CAP) and electrification goals.

- Construction proposed to begin in 2024/2025

- Initial operations expected by 2025/2026

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HMLP'S EXISTING SYSTEM

PRIVILEGED/CONFIDENTIAL/ATTORNEY WORK PRODUCT

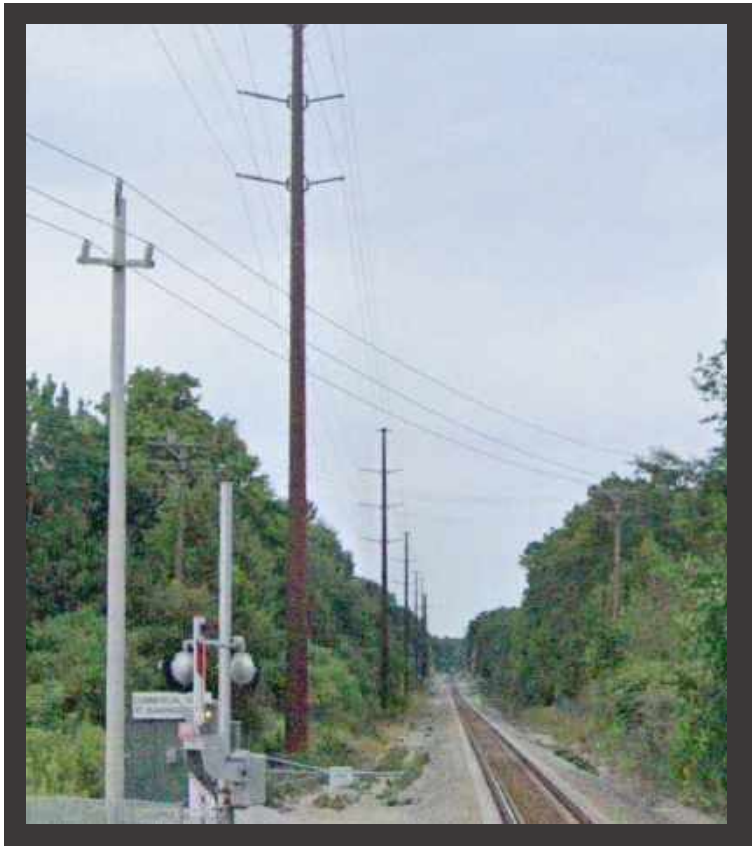
Project Need

- ***Reliability –***

  - A tower failure associated with the existing line could result in an extended outage for Hingham customers.

  - Past severe weather events have resulted in damage to portions of the line and recent experience in Texas has underscored the importance of planning to address contingencies.

  - During maintenance on either of Eversource's #478-503 or #478-508 lines serving Hingham, HMLP is served by only a single feed and is vulnerable to an extended outage affecting entire town.



- ***Capacity –***

  - HMLP peak load to date: 57 MW (August 2018)

  - Additional load growth of up to 5 MW by 2030 is expected as a result of increased electrification associated with meeting Climate Action Plan goals

  - Other potential areas of load growth: 2.5 MW (Commerce Street); 5 MW (Old Derby Street)

PROJECT NEED

- ***Capacity (continued) –***
  - By 2030, HMLP system peak could grow to between 80 MW and 90 MW.
  - The existing firm capacity of Hobart Street is 80 MW

PROJECT COMPONENTS AND ESTIMATED COST

- Underground 115 kV transmission line in Weymouth and Hingham
- Estimated length: approximately 3.7 miles (final length of line dependent on route selection)
- New Eversource owned and operated tap station in Weymouth
- New substation in Hingham at transfer station site (enclosed building with minimal environmental impacts)

PROJECT COMPONENTS AND ESTIMATED COST

- Among other things, the substation will include circuit breakers, bus work, and protection and communications equipment
- Proposed site will accommodate the addition of a transformer when load growth warrants
- Estimated project cost: between $55 - $60 million for project components, including permitting and contingency costs.

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SITE AND ROUTE SELECTION

- Site and route selection goals:
  - Identify and consider a range of site and route alternatives
  - Establish appropriate criteria and apply them uniformly and fairly
  - Minimize construction and environmental impacts
  - Minimize system costs
  - Ensure system reliability
  - Value community benefits and Environmental Justice objectives

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SITE AND ROUTE SELECTION

- Substation site selection (completed):
  - Selection process began in earnest in 2018
  - Initial review of potential site areas
    - North Hingham (near shipyard)
    - Near Existing Substation (preferred site area)
    - South Hingham (National Grid interconnection)
    - 308 Cushing Street (former HMLP facility)

SITE AND ROUTE SELECTION

- Town-owned sites near Hobart Street
  - Eliminated Article 97 properties
  - Reviewed 10 sites (including transfer station)
  - Initial selection of triangle parcel/community feedback
  - Revaluate siting options
  - With support from Select Board, a second look at the DPW transfer station
  - Confirmation of transfer station as preferred site

- Route selection (ongoing):
  - Weymouth community outreach

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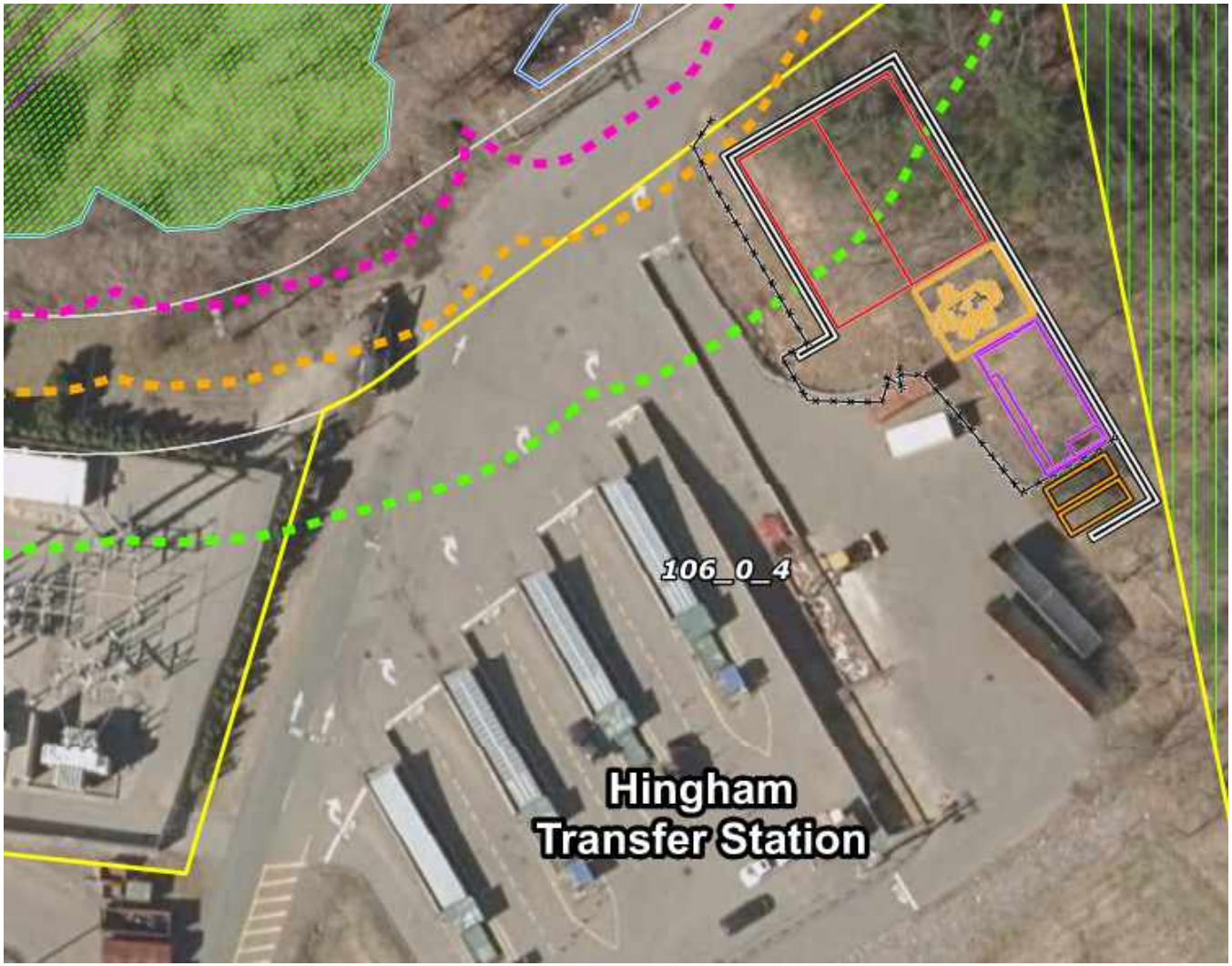
PROPOSED SUBSTATION LAYOUT



PROPOSED SUBSTATION RENDERING

KEY PROJECT MILESTONES

- Hingham Community Meetings
  - (October, November and possibly December 2021)
- Hingham Town Meeting (acquire property, borrowing)
  - (Spring 2022)
- Continued dialog with Hingham residents and businesses
  - (2021-2022)
- Outreach in Weymouth
  - (2021-2022)
- Obtain state and local permits and approvals
  - (2022-2023)
- Construction, Testing and Operation
  - (2024-2026)

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KEY PERMITS AND APPROVALS

- Energy Facilities Siting Board (EFSB)
- Massachusetts Environmental Policy Act (MEPA)
- Hingham and Weymouth zoning
- Hingham and Weymouth Site Plan Approval
- Hingham and Weymouth Conservation Commission Order of Conditions
- Other approvals, as necessary

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ENERGY FACILITIES SITING BOARD

- Nine-member State agency charged with providing "a reliable energy supply for the commonwealth with a minimum impact on the environment at the lowest possible cost." G.L. c. 164, § 69H
- HMLP's proposed underground 115 kV transmission line and associated substation require Siting Board approval
- No other State approval or permit can be issued until Siting Board approves applicant's Petition to Construct. G.L. c. 164, § 69J
- HMLP plans to submit Petition to Construct to Siting Board in May 2022

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SITING BOARD REQUIREMENTS

1. Are additional energy resources needed?
2. Is the proposed project superior to alternatives in terms of reliability, cost, environmental impacts, and in its ability to address?
3. Has applicant considered a reasonable range of practical facility siting alternatives?

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SITING BOARD REQUIREMENTS

4. Have the environmental impacts of the project been minimized, and does the project achieve an appropriate balance among conflicting environmental concerns as well as among environmental impacts, cost, and reliability?
5. Are project plans consistent with the current State policies on health, environmental protection, and resource use and development?

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ISSUES ADDRESSED IN SITING BOARD REVIEW

- Project need (reliability, capacity)
- Alternatives (distributed generation, energy efficiency, other options)
- Project cost
- Alternative routes
- Environmental and construction impacts:
  - Noise
  - Traffic
  - Air
  - Wetlands, water resources, stormwater
  - Visual
  - Historical/archaeological/endangered species/cultural resources
  - Magnetic fields
  - Land use
  - Safety
  - Hazardous and solid waste

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QUESTIONS?