

THE ENERGY IS ABOUT TO

SHIFT

**WEBINAR 2 — *BEYOND INFRASTRUCTURE:
BUILDING A SUPPORTIVE COMMUNITY AND
POLICY ENVIRONMENT***

**Pathways to a Community-Centered,
Resilient, and Decarbonized Grid
for New England**

January 16, 2025

Run of show

- Report overview
- Webinar 1 Recap: New England's energy infrastructure needs
- Beyond infrastructure: Building a community-centered environment
- Policy, process, and capacity
- Land use and siting challenges
- Social barriers and historical impacts
- Q & A



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Overview

- New England states are committed to climate action
- Several deep decarbonization studies, but no clear infrastructure deployment blueprint for the region exists
- Importance of community engagement largely absent in regional modeling and planning conversations

**COMMUNITY ENGAGEMENT
MEANS DEVELOPING A SYSTEM
DESIGNED FOR THE URGENCY
OF THE CLIMATE CRISIS THAT
VALUES COMMUNITY ACCESS
AND STANDING IN MEANINGFUL
WAYS, INCLUDING BY
OFFERING THEM THE TOOLS
NEEDED TO PROVIDE INPUT,
EXPRESS PREFERENCES,
AND PARTICIPATE.**

The Energy Is About To Shift:

Pathways to a Community-Centered,
Resilient, and Decarbonized Grid for
New England



Recap: New England's clean energy infrastructure needs

Table 1: 2020 vs. 2050 Summary of Key Energy System Changes in New England Based on 5-Study Electrification-focused Decarbonization Pathway Literature Review

ENERGY SYSTEM FEATURE	"TODAY": NEW ENGLAND'S GRID IN 2020 (REAL-WORLD FIGURES)	"TOMORROW": NEW ENGLAND'S GRID IN 2050 (FIVE-STUDY AVERAGE)
Installed electric generation capacity	43 GW	145 GW (+237%, or >3x)
Share of renewable energy generation	7.1% of TWh	84% of TWh (up 75%)
Annual end-use electric load	117 TWh	241 TWh (+106%, or >2x)
Electric peak demand	27.3 GW	55 GW (+101%, or >2x)
Interregional transmission capacity	5.13 GW	23.74 GW (+360%, or >4.5x)
Annual net electricity imports from neighbors	15.1 TWh (2023*)	22.1 TWh (+46%, or ~1.5x) ³

Beyond Infrastructure: Building a Community- Centered Environment

- Community involvement and engagement in the energy transition is crucial for the region to meet its deployment goals
- Our report includes six case studies across the region, each focusing on a different key clean energy technology
- We also identify a suite of options and opportunities for addressing barriers to achieving equitable decarbonization, including:
 - Policy, process, and capacity challenges
 - Land use and siting challenges
 - Community engagement challenges

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Case Studies

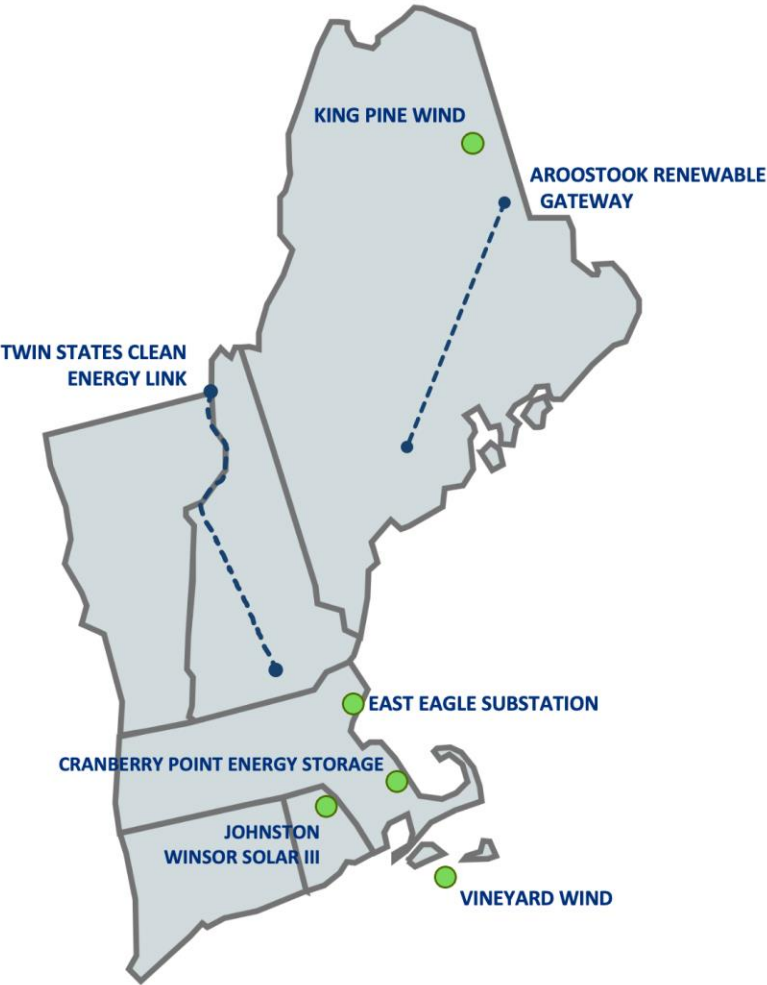


Table 2: Project Case Studies

PROJECT CASE STUDY	STATE/LOCATION	TECHNOLOGY FOCUS
Vineyard Wind	Massachusetts & federal offshore lease area	Offshore Wind
King Pine Wind and LS Power Grid MaineAroostook Renewable Gateway	Aroostook County, ME	Electricity Transmission and Onshore Wind
East Eagle Substation	East Boston, MA	Electric Substation
Cranberry Point Energy Storage	Carver, MA	Battery Energy Storage
Johnston Winsor Solar III	Johnston, RI	Solar
Twin States Clean Energy Link	New Hampshire & Vermont	Electricity Transmission

Policy, process, and capacity challenges

- Patchwork of regulations, bans, and moratoria create challenges
- Rebalancing siting and permitting authorities may ease some difficulties
- Local governments need impartial, informed technical assistance



Massachusetts Siting & Permitting Policy Reforms, November 2024

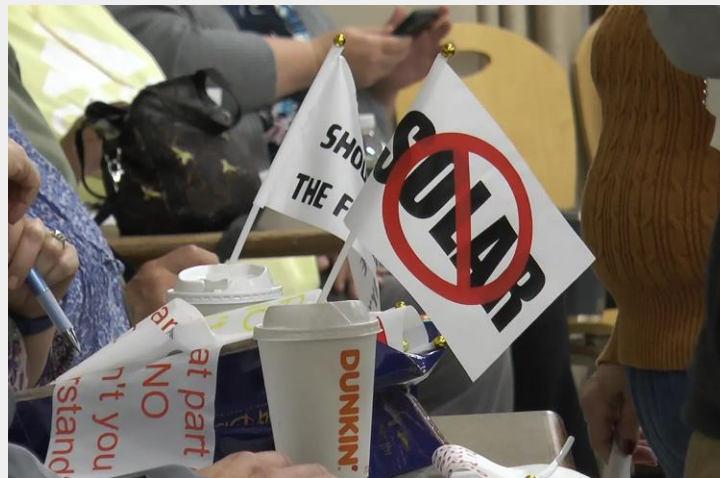
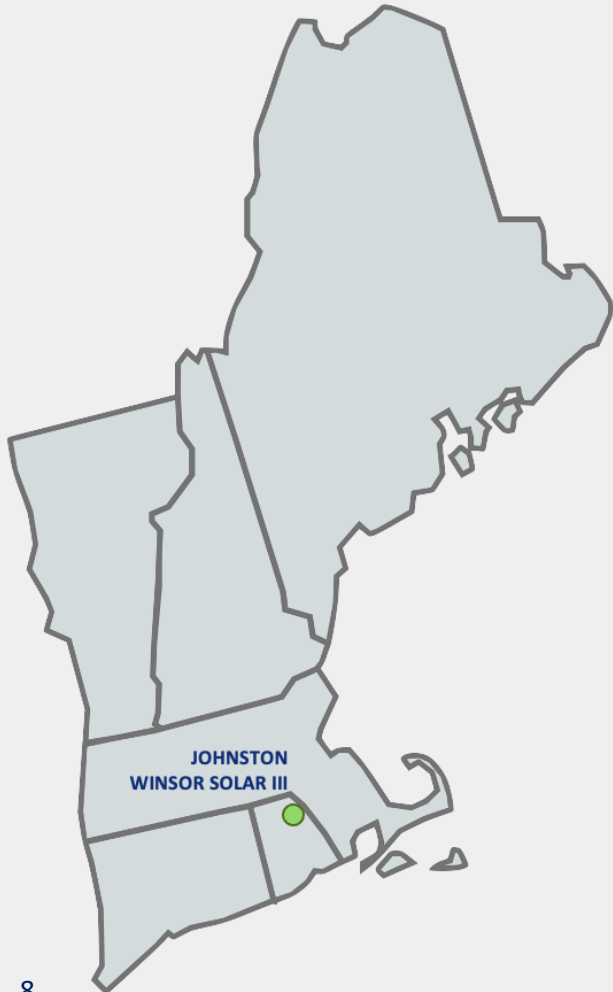
- Consolidates review and approvals with timelines
- Separate tracks for large and small projects
- Creates new offices for environmental justice and public participation
- Improves public engagement and outreach processes

Options and Opportunities

- Pass comprehensive permitting reform
- Improve siting and permitting processes
- Increase government capacity
- Provide technical support to local governments

Johnston Winsor III Solar Project

Key Themes: land use concerns, local processes



- In 2022, Green Development proposed five solar projects in Johnston, RI, all rejected
- Strong community opposition over deforestation and development on residential land
 - Attempted to pass solar ban
- Green Development appealed to RI Supreme Court
- Scaled down proposal denied again
 - 24 MW (325 acres) to 19 MW (158 acres)
- Appealed and remanded again in July 2024

Image Source: [The Providence Journal](#)

Land use and siting challenges

- Selecting and securing a site is complex, requiring consideration of many factors
- Siting linear infrastructure is particularly challenging
- Conversion of land from one use to another creates tensions
- Land is a finite resource



Options and Opportunities

- Integrate clean energy into land use planning
- Prioritize low-impact development and account for cumulative impacts
- Balance farmland and wildlife protections with energy development

King Pine Wind and Aroostook Renewable Gateway Transmission Line

Key Themes: siting and routing, state policies and processes



- Both projects entered into PPAs with Maine and Massachusetts
- King Pine Wind
 - 1,000 MW, in-service 2029
 - Generally positive reception, sited on previous logging land
- Aroostook Renewable Gateway Transmission
 - 160-mile, 345 kV line
 - Opposition grew and 11 towns passed moratoria
 - Terminated by Maine PUC over unresolved cost disagreements and delays in 2024

Social barriers and historical impacts

- Levels of community support or opposition are key factors in a project's success or failure
- Perceived lack of procedural equity can drive community opposition
- Vested interests and incumbent generators may undermine decarbonization efforts
- Baseline sentiments of distrust towards energy infrastructure due to past harms are persistent



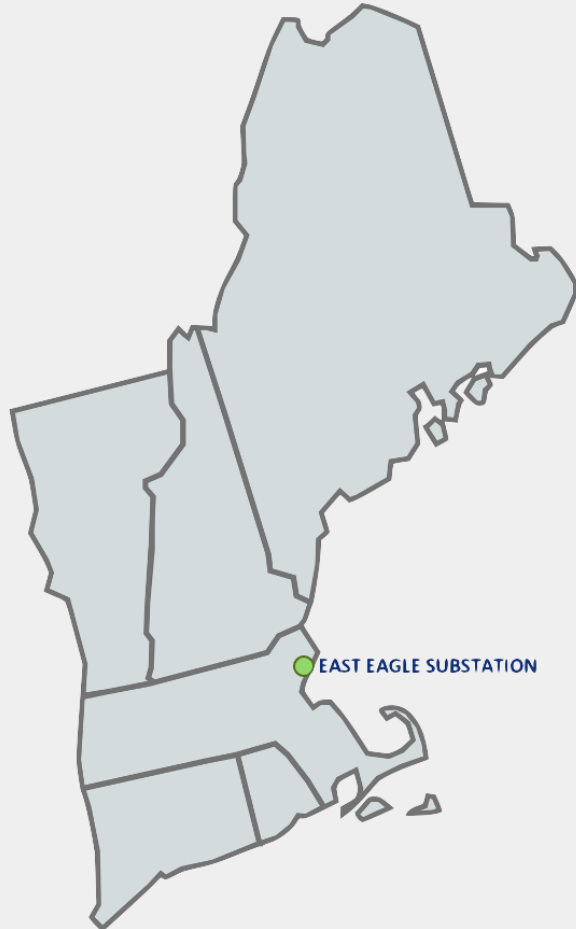
Options and Opportunities

- Facilitate proactive developer communication and engagement with communities
- Deliver meaningful benefits for communities
- Minimize cumulative impacts

CASE STUDY

East Eagle Substation

Key Themes: equity in decision-making, engagement, cumulative impacts



- New substation proposed in environmental justice neighborhood in East Boston
- Concerns over safety, fire and flood risks, and cumulative impacts
- Frustration over poor outreach, engagement and inaccessibility of meetings and hearings
- Multiple lawsuits and appeals
- EFSB approval with condition for a community benefit agreement
- Eight-year approval timeline (2014-2022)

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Q&A

- [Report](#)
- [Infrastructure Blog](#)
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