CAPE COD COMMISSION
SUBCOMMITTEE HEARING

New England Wind 1 Connector
CCC No. 22005

DATE: TUESDAY, MARCH 7, 2023

TIME: 5:00 P.M

The meeting will be held virtually, with members of the subcommittee participating remotely, pursuant to Chapter 20 of the Acts of 2021

CAPE COD COMMISSION

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HEARING AGENDA

- **Announcements**
- Attendance – Roll Call
- Applicant's Presentation
- Staff Presentation
- Subcommittee Discussion
- Public Comment
- Further Subcommittee Discussion/Actions

OPENING ANNOUNCEMENTS

- This meeting is being held virtually as allowed pursuant to Chapter 20 of the Acts of 2021
- Because there are members remotely participating, we will be taking a roll call vote on any action.
- This meeting is being recorded for the purposes of creating minutes.

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SUBCOMMITTEE MEMBERS:

- Fred Chirigotis, Chair
- Kevin Grunwald
- Harold Mitchell
- Richard Roy
- Thomas Wilson

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COMMENTS FROM APPLICANT

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Agenda

01 Welcome & Project Overview
- Pat Johnson, Manager of External Affairs - AVANGRID

02 Project Description
- Hans van Lingen, State Permitting Manager - AVANGRID
- Holly Carlson Johnston, Epsilon Associates

03 Discussion & Questions

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Our Team



Pat Johnson
External Affairs Manager



Hans van Lingen
State Permitting Manager

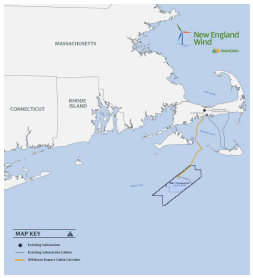


Holly Carlson Johnston
Epsilon Associates

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New England Wind 1 Connector

Project Overview



KEY PROJECT FACTS

- **CAPACITY** 800+ MW
- **FEDERAL LEASE AREA** OCS-A 0534
- **POWER PURCHASE AGREEMENT(S)** 20 Years // 804 MW
- **COMMERCIAL OPERATION DATE** Anticipated 2027
- **OWNERSHIP** 100% AVANGRID
- **DISTANCE TO SHORE** 40+ miles from Barnstable
- **POINT OF INTERCONNECTION** West Barnstable, Massachusetts
- **PERMITTING STATUS** Anticipated federal approval Q1 2024

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New England Wind 1 Connector

Public Benefits

Over 800 Megawatts (MW) of clean, renewable energy brought to the New England grid, powering approximately 400,000 homes and businesses

Reduces greenhouse gas emissions by 1.59 million US tons per year, the equivalent of taking over approximately 310,000 cars off the road annually.

Creation of 4,700 direct full-time equivalent (FTE) job-years and 210 indirect job-years over life of project across Massachusetts and Connecticut

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New England Wind 1 Connector

Project Benefits to Barnstable





Host Community Agreements and Tax Revenue

- Signed Host Community Agreement (HCA) with the Town of Barnstable
- Includes host community fees of $16M
- AVANGRID will be one of the largest taxpayers to Town of Barnstable and West Barnstable Fire District, with little demand for town services

Coordination on Sewer Work

- Coordination with Barnstable DPW to install underground utility cables with the Town of Barnstable's sewer lines to advance the Town's sewer project and defray associated costs and disruption

Minimizing Disruption

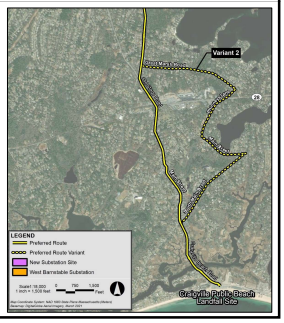
- Beach and road work limited to non-summer months

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New England Wind 1 Connector

Onshore Route Selection

- Extensive routing analysis through MEPA & EFSB processes with robust community input, many public meetings since 2020
- Both routes have the opportunity for collaboration with the town on sewer main installation
- Preferred Route (Main St): 2 years of construction
- Variant Route (S Main St): 3 years of construction
- Engineering analysis found the Preferred route to be superior by a wide margin
- Centerville community preference was a significant factor: community preference was split, no consensus
- Park City Wind notified the town in October 2022 of confirmation of the Preferred Route

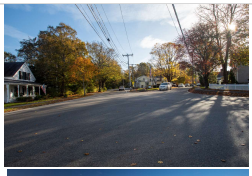


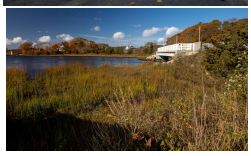
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New England Wind 1 Connector

Commitments to Centerville

- Park City Wind will leave the entire onshore route and Town better than we found it: we have that obligation in our Host Community Agreement.
- We aim to be good partners with the Town, good neighbors, and be part of the community for years to come.
- Commitment to fund a significant portion of any town-led streetscape improvement project post construction on Centerville Main Street (sidewalks, complete streets effort etc.)
- Keeping the beautiful trees that line Centerville Main Street has been made clear by residents to be a priority. We will design our infrastructure installation to limit impacts to trees to every extent possible.
- Town tree warden will lead the tree evaluation process.





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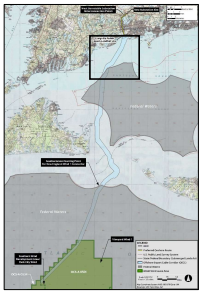
Cape Cod Commission Review

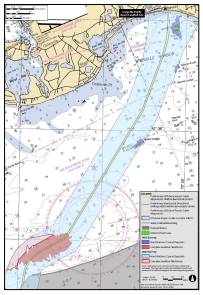
- Development of Regional Impact (DRI)
  - Consistency with Regional Policy Plan
  - Consistency with municipal bylaws and plans
  - Benefits outweigh detriments
- RPP Goals and Objectives
  - Natural Systems
  - Built Systems
  - Community Systems
- The Project is consistent with the RPP and its goals and objectives as demonstrated in the DRI application

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New England Wind 1 Connector

Project Overview & Offshore Export Cable Corridor





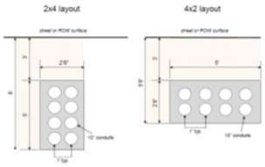
- 800+ MW offshore wind energy generation facility (federal waters, 41 miles from Cape)
- Offshore Export Cable Corridor
  - 6.6 miles in Barnstable waters
  - Largely the same as for Vineyard Wind Connector
  - 2 offshore export cables
  - Target burial depth = 5-8 feet
- ~4-mile onshore export cable route to proposed substation
- Interconnection at the West Barnstable Substation

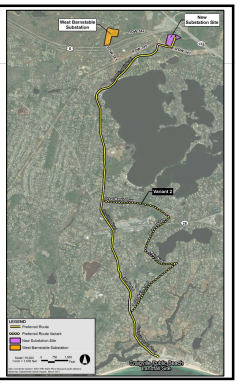
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New England Wind 1 Connector

Onshore Route & Duct Bank Layout

- Route from Craigville Public Beach Landfall Site to proposed substation almost entirely follows existing roadway layouts.
- Four-mile-long buried concrete duct bank
- Trenchless crossing of Centerville River
- No permanent impacts to wetlands or rare species habitat
- Extensive coordination with the Town of Barnstable

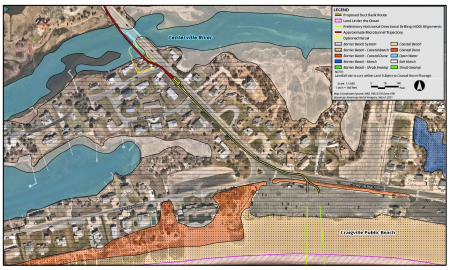




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New England Wind 1 Connector

Landfall & River Crossing



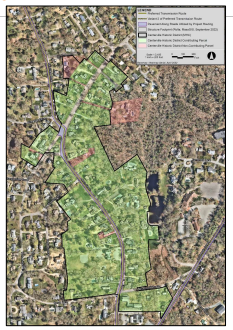
- Landfall Site: paved parking lot at public Craigville Beach
- Horizontal Directional Drilling will avoid nearshore and beach impacts
- Microtunnel crossing of Centerville River
  - No impacts to river
  - Depth at least 10' below river bottom

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New England Wind 1 Connector

Construction in Centerville Historic District

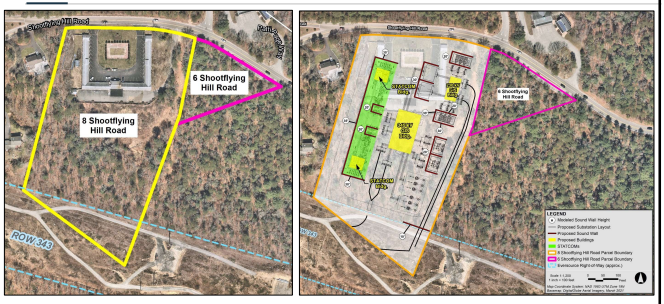
- No impacts to historic structures are anticipated
- Nonetheless, AVANGRID is proposing mitigation measures for construction within the District:
  - Pre-Construction Surveys of historic structures
  - Engineering design measures
  - Compacting rollers will only be used in static (i.e., non-vibratory) mode
  - Post-Construction Review



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New England Wind 1 Connector

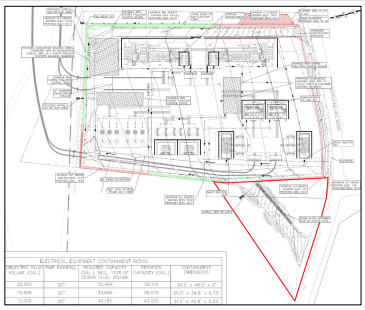
Proposed Substation Site



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New England Wind 1 Connector

Proposed Substation Site



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New England Wind 1 Connector

Grid Interconnection Route



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West Barnstable Substation & Route 6 Crossing



Updated Interconnection Design Provided to CCC on March 3rd, 2023

- Similar to assumptions originally provided in DRI
  - Reflects the current design of the substation expansion by Eversource
  - Entry pit for trenchless crossing now proposed on the south side of Rt. 6
  - Utilizes Eversource-owned parcels for work area
  - Shift in duct bank alignment to avoid conflict with overhead

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New England Wind 1 Connector

Open Space Mitigation

Project Area	Placetype	Maximum New Land Disturbed (acres)	Open Space Mitigation (acres)
6 Shootflying Hill Road (Substation)	Natural Areas	1	3
8 Shootflying Hill Road (Substation)	Natural Areas	3	9
Interconnect Route and Trenchless Crossing	Not mapped	0.8 (Now 1.40)	1.40
Eversource West Barnstable Substation (Eversource property)	Not mapped	0.65 (Now 0.99)	0.99
		TOTAL AREA	**(previously 13.45) 14.39**

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PRESENTATION FROM COMMISSION STAFF

- Staff Comments (Jeffrey Ribeiro)

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Project Description

- Two export cables through 6.9 miles of state waters within Barnstable County
- 4.0 miles of buried duct bank and export cables, primarily in public roadway layouts
- New substation located at 6 and 8 Shootflying Hill Road
- 0.7 miles of buried duct bank and export cables primarily proposed in existing utility right-of-way (ROW) to the West Barnstable Substation
- New equipment at the existing West Barnstable Substation on Oak Street

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Project Description



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Procedural History

- DRI review pursuant to Section 2(d)(i) of the Enabling Regulations as the Project required the preparation of an Environmental Impact Report pursuant to the Massachusetts Environmental Policy Act
- Mandatory Environmental Impact Report under MEPA due to the project including:
  - Alteration of ten or more acres of wetlands (land under the ocean)
  - Construction of electric transmission lines with a capacity of >230kV
- DRI hearing period procedurally on March 14, 2022
- DRI hearing period extension requested to June 10, 2023
- Host Community Agreement with Barnstable in May 2022

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Applicable RPP Issue Areas

- Community Design
- Cultural Heritage
- Transportation
- Water Resources
- Ocean Resources
- Wetland Resources
- Wildlife and Plant Habitat
- Open Space
- Coastal Resiliency
- Capital Facilities and Infrastructure
- Energy

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Community Design

- CD1 - promote context sensitive building and site design
  - substation visible from the adjacent streetscape
  - mast poles visible from Lake Wequaquet/Route 6 Park and Ride but unlikely to have significant visual impacts
  - lower ground height and solid sound wall of the substation will limit the height and visibility of the substation equipment
  - mix of species planted in more natural groupings along Shootflying Hill Road would create a more effective landscape screen
  - description of the materials and colors proposed for "slatted fence" noted on north side of the substation (along Shootflying Hill Road) needed

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Community Design



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Community Design



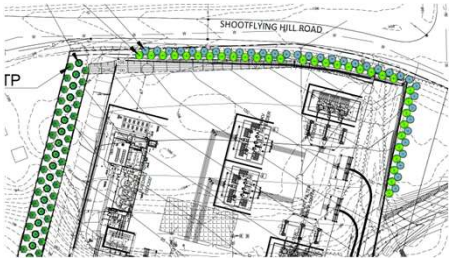
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Community Design



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Community Design



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Cultural Heritage

- CH1 - protect and preserve forms, layouts, scale, massing, and key character defining features of historic resources, including traditional development patterns of villages and neighborhoods
  - Construction Impact Mitigation Plan commits to protections for historic buildings along the entire route within the Centerville Historic District
- CH2 - protect and preserve archaeological resources and assets from alteration or relocation
  - archaeological survey of sensitive areas was completed by PAL Inc. under direction from MHC

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Cultural Heritage

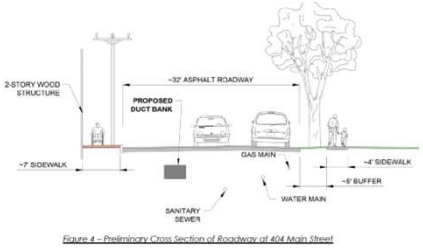


Figure 4 – Preliminary Cross Section of Roadway at 404 Main Street

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Transportation

- TR1 - improve safety and eliminate hazards for all users of Cape Cod's transportation system
  - Traffic Management Plans minimize impacts during construction
  - Directional drilling and microtunneling minimize impacts to Route 6 and Centerville River crossing

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Water Resources

- WR1 - protect and preserve groundwater quality
  - site-wide nitrogen loading as it is calculated to be 0.15 ppm, which is less than the 1 ppm standard set by the Cape Cod Commission and lower than the previous use
  - any approval conditioned on submittal of hazardous materials details for staff review
- WR2 - protect, preserve, and restore freshwater resources
  - any approval conditioned on submittal of engineering design, details, and stormwater management details of the West Barnstable substation expansion and O&M plans for the proposed stormwater treatments and the Petro-barrier film

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Water Resources

- WR4 - manage and treat stormwater to protect and preserve water quality
  - stormwater conveyances, pretreatment, and recharge BMPs will result in improved groundwater recharge, decreased total and peak runoff rates, and improved post-development hydrology at the site
  - any approval conditioned on submittal of plans for staff review

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Ocean Resources

- OR1 – locate development away from sensitive resource areas and habitats
  - offshore export cables are not located within designated prohibited areas for ocean species or exclusionary areas as identified in the Cape Cod Ocean Management Plan
  - Horizontal Directional Drilling out to 1,000-1,200 feet from shore at depth of 40 feet avoids or minimizes impacts to piping plovers and other rare birds and other sensitive nearshore resource areas including eelgrass beds, areas of hard bottom, and most of a mapped suitable shellfish habitat area

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Ocean Resources

- OR2 – preserve and protect ocean habitat and the species it supports
  - potential impact to sensitive species within Barnstable County waters is very limited due to the temporary nature of cable installation activities and the very slow of cable laying operations
- OR3 – protect significant human use area and vistas
  - no restrictions to vessel transit or fishing in the Project area other than temporary restrictions in the safety zone
  - marine archaeological assessment
  - archaeological investigations have recovered no pre-Contact Native American cultural materials to date

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Wetland Resources

- WET1 – protect wetlands and their buffers from vegetation and grade changes
  - water-dependent installation of utility lines
  - no permanent impacts to wetland resource areas within the land-based portion of the Project
  - temporary impacts within the limited wetland resource areas will be minimized with construction Best Management Practices and restored to existing conditions

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Wildlife and Plant Habitat

- WPH1 – to maintain existing plant and wildlife populations and species diversity
  - substation site selection proximate to existing utility and other development
  - avoids sensitive areas as defined in the State Wildlife Action Plan and BioMap
- WPH3 – protect and preserve rare species habitat, vernal pools, 350-foot buffers to vernal pools
  - avoids or minimizes impacts where portions of the Project overlap with rare species habitat
  - small portion of the Project within the 350-foot buffer to a NHESP-certified vernal pool
  - project can be protective of the vernal pool buffer with appropriate conditions

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Wildlife and Plant Habitat



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Wildlife and Plant Habitat

- WPH4 – manage invasive species
  - invasive species protocols outlined in August 5, 2022 memorandum
  - protocols shall be expanded to include washing of construction vehicles and post-construction monitoring
- WPH5 – promote best management practices to protect wildlife and plant habitat from the adverse impacts of development
  - perimeter construction fencing and erosion controls at the substation sites should help to protect habitat located outside the construction envelope

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Open Space

- OS1 - protect and preserve natural, cultural, and recreational resources
  - no permanent post-construction impacts on recreational access, scenic views, and community character at Craigville Beach
- OS2 - maintain or increase the connectivity of open space
  - ductbanks buried within existing roadway layouts or utility easements
- OS3 - protect or provide open space appropriate to context
  - consistent provided suitable open space is conserved in a manner that mitigates impacts to high value resources identified in OS1 (i.e., undeveloped land in a Wellhead Protection Area)

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Open Space

Project Property/Use	Placetype	New Land Disturbed (acres)	Open Space Mitigation (acres)
6 Shootflying Hill Road (substation)	Natural Areas	1.0	3.0
8 Shootflying Hill Road (substation)	Natural Areas	3.0	9.0
Parcel 214-001	Not mapped	0.8	0.8
West Barnstable Substation	Not mapped	0.65	0.65
Totals		**5.45**	**13.45**

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Coastal Resiliency

- CR1 - minimize development in the floodplain
  - impacts minimized/mitigated through use of HDD, TOY restrictions, and restoration
  - Microtunneling avoids impacts to river and existing bridge unchanged
- CR2 - plan for sea level rise, erosion, and floods
  - onshore export cable insulated and buried within an underground concrete duct bank designed to withstand wet conditions
- CR3 - reduce vulnerability of built environment to coastal hazards
  - will not expand existing development footprints or alter existing topography or flood storage capacity

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Capital Facilities and Infrastructure

- CAP1 – ensure capital facilities and infrastructure promote long-term sustainability and resiliency
  - cables not be subject to wind, ice, tree falls or other hazards
  - substation at 8 Shootflying Hill Road is not within the flood zone
  - directional drilling avoids impacts to functions of coastal resources
- CAP2 – coordinate the siting of capital facilities and infrastructure to enhance the efficient provision of services and facilities that respond to the needs of the region
  - coordinates with sewer expansion and other wind projects
  - use of existing utility easements reduces costs and limits impacts

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Energy

- EN1 - support an adequate and diverse supply of energy for and to Cape Cod that is context-sensitive
  - large-scale offshore wind power is a significant part of Massachusetts' overall approach to a Clean Energy future
  - screening of equipment from public view to avoid detrimental visual impacts
  - non-toxic transformer and other fluids
  - outside of sensitive areas and close to grid interconnection points

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Energy

- EN2 – increase resiliency of energy generation and delivery
  - help manage for peak demand and power outages by providing an alternative source of energy production other than solar power
  - increase the amount of green energy reaching the grid at times when solar PV installations are not producing energy
  - protect infrastructure by locating the transmission cables underground

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Other Review Standards

- Consistency with Municipal Development Bylaws/DCPC Regs
  - Comprehensive zoning exemption from the Massachusetts Department of Public Utilities
  - Supported by Town through HCA
- Consistency with LCP
  - Supports renewable energy, economic growth and diversification, and infrastructure investment

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Next Steps

- Subcommittee questions
- Public comment
- Subcommittee discussion
  - Requests to applicant for further information
  - Further staff analysis
  - Probable project benefits and detriments
- Motion to Continue
  - Time/Date/Place Certain

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SUBCOMMITTEE QUESTIONS

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FURTHER SUBCOMMITTEE DISCUSSION/ACTIONS

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FURTHER SUBCOMMITTEE DISCUSSION/ACTIONS

Recommended Motions:

- Move to continue the public hearing on the project to March 27, 2023 and 5 p.m. to be held virtually.

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THANK YOU FOR ATTENDING

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