

# Frequently Asked Questions: Falmouth Heights Maravista Neighborhood Association

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## Site Location Analysis

### **Q: What are the proposed locations being considered to bring the cable onshore?**

A: The three proposed landfall locations are 1) Worcester Court (Falmouth Heights Beach), 2) Shore Road (Surf Drive Beach) and Mill Road (Surf Drive Beach), as shown in the image below. Rigorous routing and siting analysis will be completed before a decision on the landfall location is made.



### **Q: Why is Worcester Court being considered as a potential landfall location?**

A: Routing analysis for the landfall facilities takes into consideration multiple factors, such as feasibility for construction, environmental resources, social impact, cultural resources, and other local concerns. The objective is to minimize impacts while aligning with safety, cost, and engineering considerations. This involves a weighing of the pros and cons of the various locations.

The Surf Drive Beach area is less congested and has fewer year-round residents compared to the Falmouth Heights Beach area. However, according to studies from the Falmouth Coastal Resiliency Action Committee and Woods Hole Group, Surf Drive Beach is the most vulnerable spot in Town as sea levels continue to rise. And existing export cables to the Vineyard depart from this area. The Falmouth Heights Beach area is at a higher elevation with a lower inundation risk. It also provides more of a “straight line” for the underground cable coming from offshore to the substation. This means less cable and construction would be required. However, Mayflower Wind recognizes that the Worcester Court Park was recently renovated and is prized by the community. We are committed to working closely with the

neighborhood associations and residents to minimize construction inconveniences, hold open lines of communication and make decisions with the best interest of the community as our first priority. Regardless of the choice of location, Mayflower Wind will leave any property in the same or better condition than we find it.

**Q: Are there alternative sites farther removed from neighborhoods and public beaches?**

A: The proposed locations to bring the cable onshore are located underneath public beaches for simple reasons. Because Mayflower Wind is building an offshore wind farm 30 miles off the coast of Martha’s Vineyard it must deliver clean power to consumers by way of a submarine cable. Given the geography of Cape Cod the overwhelming majority of potential locations for those cables making the transition from offshore and onshore are beaches. And the cables need to connect to the existing electrical infrastructure – which is overwhelmingly located in places with electrical need and population – which on Cape Cod nearly always means well populated neighborhoods.

**Q: I’ve read that the cables will be 26-30 feet below the beach but 3.3 feet below the parking lot. How will the transition from 30 feet to 3 feet be accomplished?**

A: Horizontal Directional Drilling (HDD) will be employed to bring the cable inland. By utilizing a directional drilling machine, a bore path is chosen and accurately drilled. The cable will then be installed through this bore. As shown in the image below, the bore will be drilled at an angled trajectory to avoid the sensitive coastal interface and allow for deeper burial beneath the beach. Once the cable is past the beach and has come further ashore, it will remain at a shallower depth underneath the roadway until surfacing at an onshore substation.

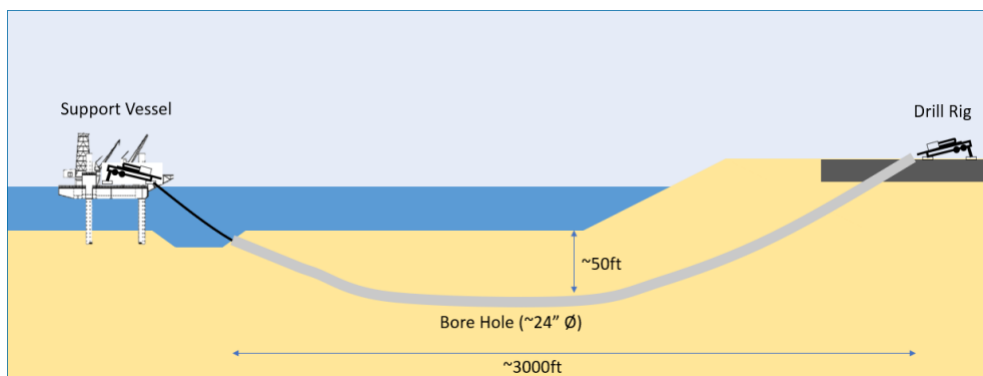


Image courtesy of DEME Offshore US

**Q: Are there any other Towns under consideration?**

A: Falmouth is the only Town under consideration to host the project’s onshore transmission facilities as it occupies the area between our offshore site and the “point of interconnection” to the regional electricity system.

**Q: Why does the cable path not continue more directly north after moving between Nantucket and Martha’s Vineyard and enter the coastline towards Barnstable that would have provided a shorter path across the Cape to the destination? Why was Falmouth specifically selected?**

A: Falmouth was determined to be the best location to bring Mayflower Wind's cable onshore through an initial feasibility analysis completed in 2019 that analyzed the regional electricity system. Barnstable has less transmission capacity available.

**Q: If approved, who decides which path (Falmouth Heights versus Surf Drive) would be used?**

A: After the survey work is completed, the three landfall locations and subsequent routes will be evaluated by Mayflower Wind and its technical consultants. Mayflower Wind will present its preferred route in regulatory filings later in the summer of 2021. The federal and state regulatory process will likely be initiated at the end of 2021. Throughout the process, there are public comment periods and meeting dates to gather stakeholder input, led by the federal and state regulatory agencies. The lead public agencies confirm the preferred locations in their regulatory decisions and certificates.

**Q: What are the anticipated locations for the onshore substation, interconnection switching station and path of the overhead lines?**

A: Survey work is currently being completed through the spring to assess the viability of each proposed location. The onshore substation would be located further inland, miles away from the beaches and Falmouth Heights neighborhood. There are three locations within the Town of Falmouth that are currently being assessed for feasibility.

The path of the overhead lines will be determined by which locations are selected for bringing the cables onshore, the onshore substation and interconnection switching station.

The interconnection switching station location will be determined in large measure based upon the results of the Independent System Operator- New England (ISO-NE) study process.

All transmission route options are currently undergoing evaluation as part of the Mayflower Wind Federal and State permitting processes. Routing analysis for the onshore transmission infrastructure takes into consideration multiple factors, such as feasibility for construction, environmental resources, social impact, cultural resources, and other local concerns. The objective is to minimize impacts while aligning with safety, cost, and engineering considerations. Routing along existing linear infrastructure (such as existing utility right-of-way (ROW) and roads), previously disturbed areas, and existing cleared land are widely accepted as best practices.

## Health and Safety

EMF - The answers below are derived from a Technical Report by an expert consultant that was presented to the Falmouth Select Board. That report is available [at this link](#). A video of that consultant answering questions on this topic is available [here](#). And a plain-English flyer summarizing the material in that report is available [here](#).

**Q: What are the projected EMF readings for the Mayflower Wind project?**

A: As described in the expert documents linked to above: EMF is produced by both natural and man-made means. EMF is a part of our everyday lives and is present around household appliances, electronics, as well as power lines. Whenever there is a flow of electricity, both electric and magnetic fields are created. The International Commission of Non-Ionizing Radiation Protection (ICNIRP) established the health-based guideline for public exposure to EMF at 2,000 milliGause (mG). The extremely low frequency EMF associated with the Mayflower Wind project will be substantially lower than the ICNIRP guidelines. Directly above buried cables, the magnetic field level is estimated to be 10 mG. Directly above the buried cable transition vault that would be under the parking lot or street median is projected to be 350 mG. The levels of these magnetic fields are comparable to those emitted by household appliances.

**Q: What would the EMF levels be at the border of private property along the transmission path?**

A: As shown in the Technical Report referenced above: The EMF levels will not be detectable at the border of private property. Magnetic field levels decrease dramatically with distance.

**Q: What health/safety risks are currently known about EMF? How long has the data been collected to determine the reliability and long-term health effects of their conclusions?**

A: As described in the expert documents linked to above: For over 40 years there have been a great deal of scientific studies to determine whether EMF affects human health. Much of the scientific research examining potential health effects of long-term EMF exposure has focused on childhood leukemia and other cancers. The World Health Organization (WHO) released a review of research on EMF and human health that was consistent with the findings of the National Institute of Environmental Health Sciences (NIEHS) and other national and international research reviews. The WHO report concluded that the cumulative evidence was not sufficient to indicate a causal relationship between EMF and any disease, including cancer.

**Q: Are there EMF studies in this area?**

A: As shown in the Technical Report referenced above: The expected EMF levels of the Mayflower Wind project will be well below the ICNIRP international guideline. The WHO studies are universal. Additionally, EMF has been extensively investigated by numerous other agencies, including the Massachusetts Office of Energy and Environmental Affairs and the Massachusetts Energy Facilities Siting Board.

## Hazardous Spills

**Q: Is there oil in the cable used to bring the power in from the wind turbines to the mainland**

A: There is no oil in the cable. These are not liquid cooled cables. Liquid-cooled (or gas-cooled) cables are sometimes used for very long-distance underground cables and are not used for this kind of application.

**Q: If there is any potential oil spill at substation location, why would a public beach be considered?**

A: The substation will not be anywhere close to the beach or the neighborhood.

## Benefits to Falmouth

**Q: Has Mayflower Wind given any information regarding how much revenue Falmouth could expect to receive if the project is approved?**

A: The revenue that the Town will receive will depend upon the exact infrastructure that Mayflower Wind builds and the terms of the agreement that will be negotiated with the Town of Falmouth.

**Q: Will this project affect Falmouth residents' electric costs?**

A: Falmouth electricity customers will see the same, positive, effect on their bills as any Massachusetts electricity customer from Provincetown to the Berkshires. The Massachusetts Department of Energy Resources calculated that, over the life of the project Mayflower Wind will provide an average of 2.4 cents per kWh of savings to all Massachusetts electricity customers (over \$2 billion in savings). Wind power stabilizes consumers' electricity rates. Due to its lack of fuel cost, wind power protects consumers from volatility in the price of natural gas by offering a fixed low price over 20 years.

**Q: Will the project decrease Falmouth residents' electric outages?**

A: Offshore wind diversifies the overall fuel generation mix, offsetting significant generation retirements within the Commonwealth, including the retirement of the Brayton Point coal fired power plant in 2017 and Pilgrim nuclear station in 2019. The presence of strong and consistent winds close to shore reduces demand for natural gas, the primary fuel used to make electricity currently which must compete with demand for gas for home heating during the winter. The integration of new offshore wind power will require upgrades to the electric grid system that will have a broad reliability benefit to local communities.

**Q: Would this project add additional costs to residents?**

A: There will be no additional costs to Falmouth residents due to the Mayflower Wind project.

**Q: What are the benefits for Falmouth residents?**

A: Falmouth will benefit from hosting a major clean energy infrastructure project through additional revenue, local construction jobs, and business activity. Payments by Mayflower Wind to the Town may support local-driven initiatives, such as coastal resiliency, energy efficiency, and other priorities, however that decision about how to spend that money will rest with the Town. Construction of the landfall, underground cabling, and onshore substation will create demand for a variety of qualified contractors and local retail businesses. Mayflower Wind looks forward to being a long-term member of the Falmouth

community and an active participant in activities such as local school STEM, renewable energy education programs, and workforce training.

## Construction

**Q: Will there be any audible noises at the beaches or in the neighborhood during construction or after construction from any part of the cable, substation or actual turbines?**

A: Noise considerations are a key factor of the design process.

1. Construction: During the different phases of construction, sound levels will vary among these activities, depending on the equipment used. Mayflower Wind will use equipment like that used in typical public works projects. The project will involve any blasting or noticeable vibrations.
2. Cables: During operation, the cables will not produce any noticeable noise.
3. Onshore substation: An onshore substation contains sound-producing electrical equipment, similar to that of current Eversource electrical substations. Mayflower Wind has conducted preliminary baseline ambient sound level measurements and will work to minimize noise impacts on nearby receptors. The onshore substation will not affect FHMNA residents or Worcester Park.
4. Turbines: Falmouth residents will not be able to hear or see the offshore wind turbines.

**Q: Will the roads be completely repaved if they are dug up? Will Worcester Court be returned to its current conditions?**

A: Yes. If the roads are dug up, they will be completely repaved. If the proposed Falmouth Heights location is selected, Mayflower Wind will leave it in the same or better condition as when we arrived.

**Q: Will the construction process occur during the summer season or off season?**

A: The cable installation and overall construction timeline has not yet been determined. Mayflower Wind recognizes that infrastructure projects affect local activities during construction, and we are committed to working cooperatively with state and local officials to minimize impacts on road use and traffic (especially during the busy summer season). Mayflower Wind and its contractors will work with the Massachusetts Department of Transportation and Falmouth Department of Public Works to plan road use during construction.

## Mayflower Liability

**Q: What recourse/rights do Falmouth residents have if there is a problem with the cable once installed?**

A: The Host Community Agreement endeavors to address and mitigate any impacts from the project. There will be no direct cost to Falmouth residents if a problem occurs with the

underground cable once installed. Mayflower Wind will continue to own and operate the project upon installation, subject to federal, state, and local regulations and standards.

**Q: What was the basis for the lawsuits relating to the turbines in West Falmouth?**

A: Mayflower Wind was not involved with any of the decision making, construction, or decommissioning of Wind I and Wind II in Falmouth.

## Miscellaneous

**Q: What would be the voltage in the cables coming onshore and being buried underneath one of the proposed locations?**

A: The cable technology for the Mayflower Wind project has not been selected. The cables will be roughly 200 kV.

**Q: Has Mayflower contacted or engaged OPEN CAPE fiber?**

A: No. However, this is something to be considered moving forward.

**Q: Will lights from the turbines be seen from the beach?**

A: While offshore wind projects must have aviation safety lighting systems those lights will not be seen from Falmouth due to the project's location far to the south of Nantucket and Martha's Vineyard.