BEYOND THE WIRES:

Vineyard Wind Transmission Interconnection

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Environmental Defense Fund

CLEAN AIR TASK FORCE

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Project Summary
This case study is part of a broader set investigating how electricity transmission projects have integrated community benefits into their development processes. These case studies specifically explore transmission projects that have been completed and are in service. The purpose of this work is to learn more about the nature of benefits frameworks; the regulatory, logistical, and engagement processes that led to agreements; community representation in agreement negotiations; the degree to which frameworks result in demonstrable benefits to the community; and any related implications on project cost and timeline, in order to inform and improve community benefits conversations happening today. These case studies were informed by web research, document and docket review, and first-person interviews.

View the full set of case studies and summary report at:
https://www.edf.org/beyond-wires-community-benefits-transmission-projects
and
https://www.catf.us/resource/beyond-the-wires-community-benefits-from-transmission-projects/

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Glossary of Acronyms

BOEM: Bureau of Ocean Energy Management

EFSB: Energy Facility Siting Board

EIS: Environmental Impact Statement

HCA: Host Community Agreement

MEPA: Massachusetts Environmental Permitting Act

NEPA: National Environmental Policy Act

USACE: U.S. Army Corps of Engineers

SUMMARY

Vineyard Wind 1, the first commercial offshore wind facility in the United States, sits 35 miles offshore from Barnstable, Massachusetts in Cape Cod and over 15 miles south of Martha's Vineyard. Although the project is still under construction, several turbines are already delivering power. Power is brought to shore via two transmission cables that reach land at Covell's Beach in Barnstable and then run beneath public roadways before they reach a substation. Although siting of the cables sparked some concern from residents about construction and environmental impacts related to the substation and disruption of the public beach, the developer's outreach and engagement efforts are generally highly regarded among those in the community.

Vineyard Wind's proactive engagement with the community, which began in the earliest stages of project permitting, set them up well when it came time to discuss the cable landing and routing to a substation, and facilitated dialogue and collaboration as the project navigated a complex development effort.

The Host Community Agreement (HCA) for the project was signed in 2018, before the project, associated transmission lines, and substation received federal and state permits in 2021. The final HCA included annual host community payments that will total $16 million over time, in addition to property tax revenue estimated at roughly $20 million over time, as well as an additional nominal payment structure that would kick in after 25 years. The agreement also included provisions to collaborate with the town on project design features to reduce groundwater contamination risk, and an agreement for Vineyard Wind to cover some costs as part of a coordinated construction effort where the town would upgrade sewer lines concurrent with the developer's installation of underground transmission lines.

Key Takeaways

- Proactive engagement and close collaboration with local officials enabled a HCA that (1) coordinated project construction with local infrastructure upgrades in line with long-term community needs and goals, (2) addressed specific community concerns through design modifications and additional financial resources to the town to consult technical experts, and (3) worked in tandem with a suite of other community benefits from the broader offshore wind project.
- Conversations about developing a community benefits framework began alongside the formal permitting process and assisted developer in gathering local- and state-level approvals in permitting.
- In the years following development of this HCA, the developer has contended with increasing community and political pushback around offshore wind. Community benefits frameworks and related community engagement can be helpful vehicles in building bridges with communities but should be tailored specifically to each community's needs and context.

FIGURE 1:

Vineyard Wind Project Map

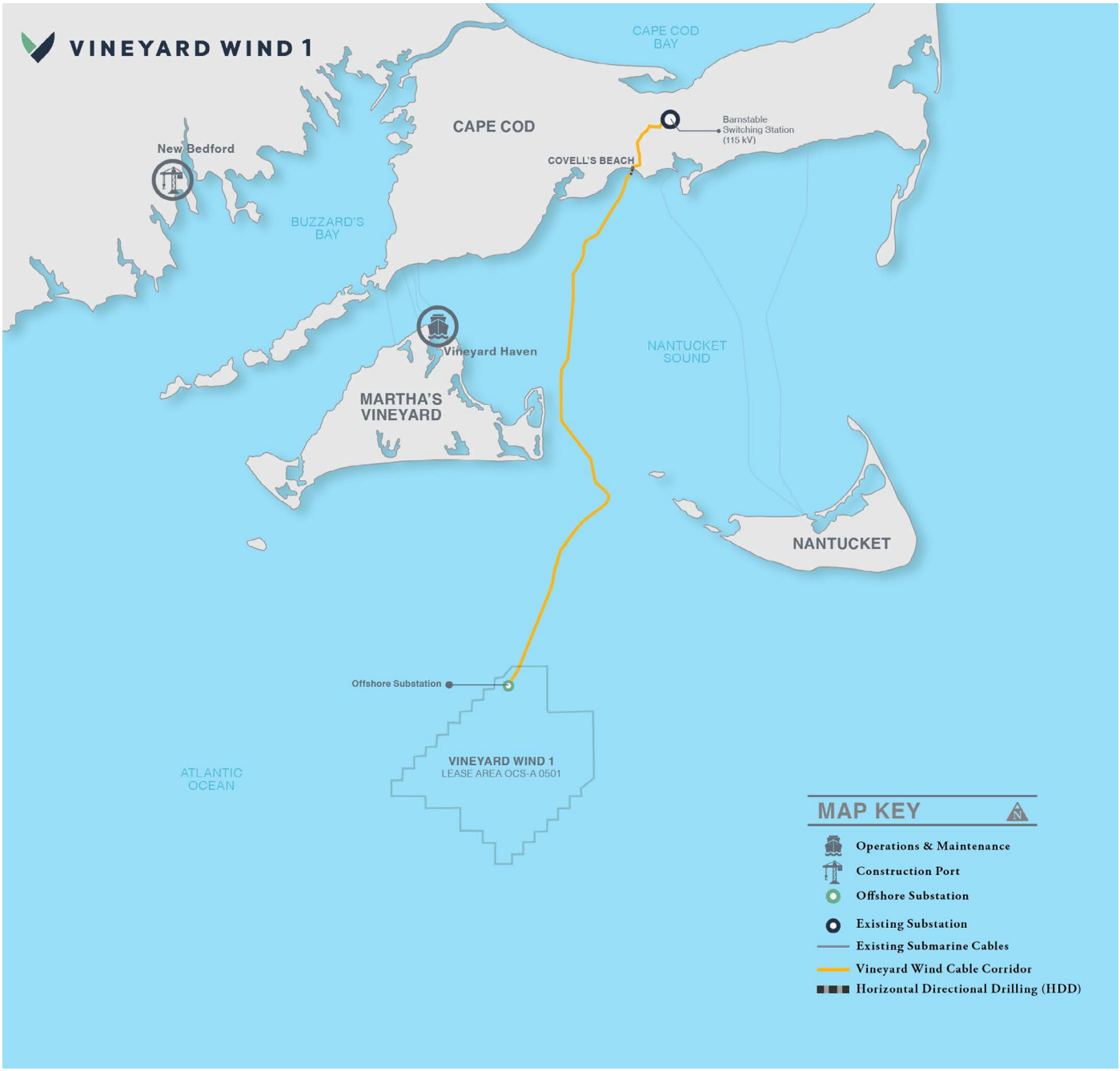
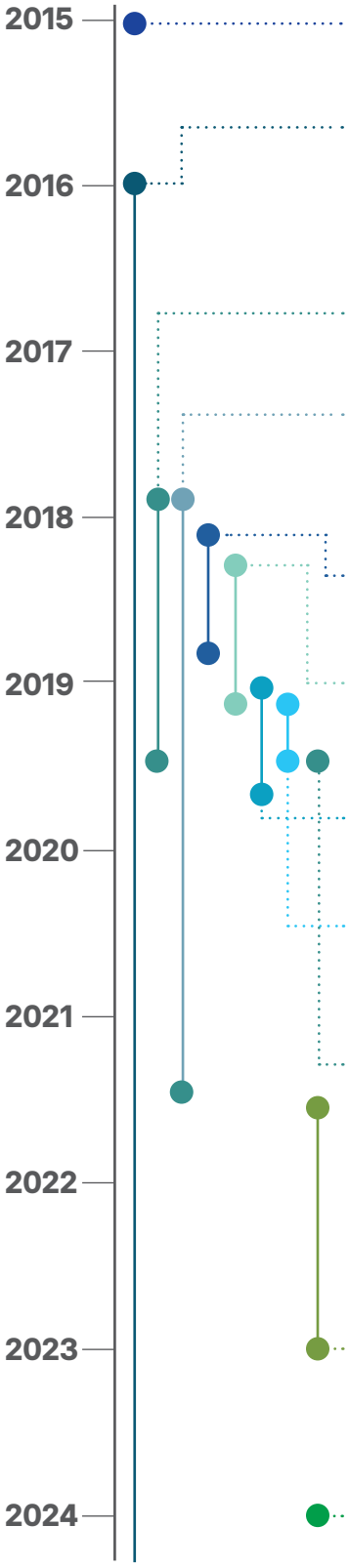


PHOTO CREDIT: VINEYARD WIND

TIMELINE



January 2015: Vineyard Wind Obtains Lease for Offshore Wind Area
The Department of the Interior holds auction for offshore wind development areas and Vineyard Wind obtains lease area.

2016 – Present: Vineyard Wind Starts Community Engagement
Vineyard Wind meets with local town governments, civic organizations, minority communities, as well as neighborhood, business, and environmental groups regarding the offshore wind project, a year before filing the permit application. Vineyard Wind meets with the Town of Barnstable weekly from 2017 to 2018 and twice a week starting in May of 2018 after Vineyard Wind was awarded the wind project bid by the State of Massachusetts. Vineyard Wind continues sustained engagement throughout the project lifecycle.

December 2017 – May 2019: EFSB Review of Grid Interconnection
Vineyard Wind petitions the Environmental Facilities Siting Board (EFSB) for approval of its subsea transmission and electric grid interconnection in Barnstable. EFSB grants approval in May 2019.

December 2017 – May 2021: Federal Environmental Review
Vineyard Wind submits project plans to BOEM in December 2017, kicking off an environmental review. BOEM issues a Notice of Intent to prepare an EIS in March 2018. Following a one-year delay for a cumulative impact review from July 2019 to June 2020, BOEM releases a final EIS in March 2021, and a Record of Decision in May 2021.

Early 2018 – October 2018: Formalizing the Host Community Agreement
Vineyard Wind and the Town of Barnstable begin discussing an HCA as federal and state environmental review begins. The town authorizes an HCA in September, and a final HCA is signed on October 3, 2018.

April 2018 – February 2019: State Environmental Review
Vineyard Wind files for state review in April 2018 and completes an Environmental Impact Report (EIR) under the Massachusetts Environmental Policy Act. Vineyard Wind receives certification of its EIR in February 2019.

January 2019 – July 2019: Petition to Grant Easement
Town of Barnstable petitions the Massachusetts Legislature to authorize the town to grant an easement to Vineyard Wind. The Act, H. 1771, was referred to committee in January 2019 and enacted in July.

February 2019 – May 2019: Regional Permitting
The Cape Cod Commission, the regional planning agency, completes a Development of Regional Impact review beginning with an application in February 2019 and concluding with a vote of approval of the report in May.

April 2019 – May 2019: Local Permitting
Barnstable Conservation Commission reviews and votes to approve Vineyard Wind project in May 2019.

Mid 2021 – 2023: Onshore Cable and Substation Construction
Vineyard Wind starts construction of onshore transmission cables and substation in Town of Barnstable in 2021, which is completed in 2023.

January 2024: Vineyard Wind Begins Delivering Power
Vineyard Wind begins delivering power for the first time while construction of remaining turbines offshore continues.

THE PROJECT

The Vineyard Wind 1 project is the first commercial-scale offshore wind facility in the United States. The project sits 35 miles offshore from Barnstable, Massachusetts in Cape Cod and over 15 miles south of Martha's Vineyard and is still under construction as of 2025. When completed, the facility will be capable of generating a maximum output of 800 megawatts. The facility first began delivering power in January 2024; however, construction on turbine installation was paused between July and December 2024 following a blade failure incident. As of July 2025, construction is still underway with several turbines already delivering power.

There are two transmission cables that bring power to shore. The cables begin at an offshore substation at the wind facility and are buried at least six feet under the sea floor until they reach the shore at Covell's Beach. From there they are buried roughly 30 feet underground at the shoreline using a trenchless installation technique called horizontal directional drilling. The cables then run beneath public roadways, encased in cement, to a new substation at Independence Park, next to an existing Eversource substation.[1] Preliminary permitting for the lines began in 2017, and final permits were acquired in 2021 after stops and starts in permitting processes at the state and federal levels. Construction of the cables and substation was completed in 2023.

FIGURE 2:

Onshore Cable Route

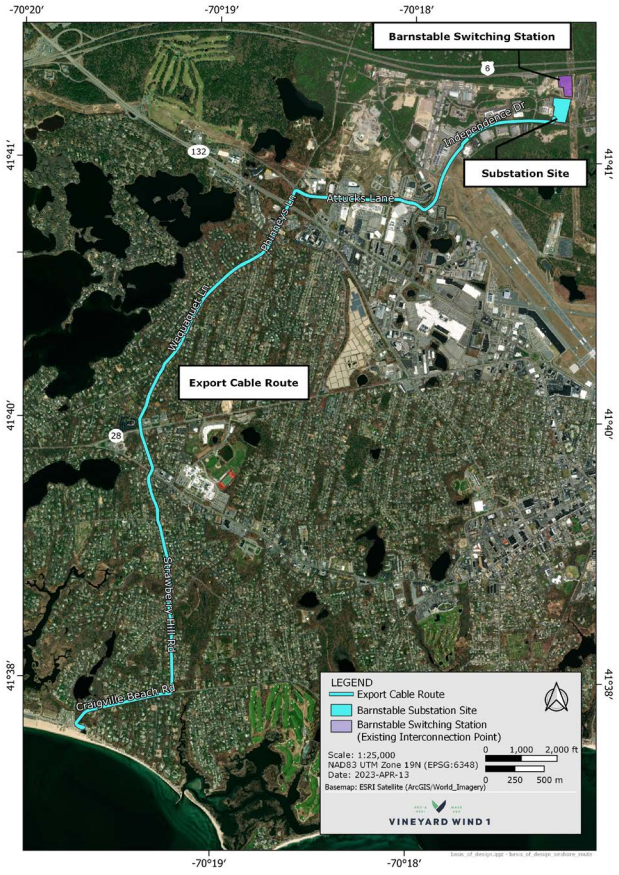


PHOTO CREDIT: VINEYARD WIND

FIGURE 3:

Offshore Substation

PHOTO CREDIT: ANTONIO BELTRÁN / THE NEW BEDFORD LIGHT

1 Wasser, M. & Lubbock, R. (2023, January 20). *Checking in on Vineyard Wind, country's first large offshore wind project in Mass.* WBUR.

THE COMMUNITIES

Mashpee Wampanoag Tribe

Cape Cod is the ancestral home of the Indigenous Wampanoag people, who have lived on and made use of the land for over 12,000 years. Despite continuous inhabitation, and enrollment of more than 3,000 citizens, it was not until 2007 that the Mashpee Wampanoag Tribe was federally recognized.[2] The Tribe's reservation lands in the Town of Mashpee were not formally obtained until 2021.

Town of Barnstable

The Town of Barnstable is the largest and most populated community on Cape Cod, and is the seat of Barnstable County, which covers the entirety of the Cape. Barnstable, like the rest of the Cape, is well known for its beaches, coastal communities, and maritime culture. The town itself is made up of seven villages with varying profiles, some with more commercial structures and business centers, and others that are more residential.

The year-round population of Barnstable is 49,000, although the population fluctuates throughout the year due to an increase in seasonal jobs and vacationing in the summertime. The community is largely white, making up nearly 78% of the population as of 2022. While Barnstable's median household income of $97,358 is above the national median household income of $80,610, there exists a range of income levels across the seven villages, from the highly-wealthy "upper class" to the working class.[3] Barnstable is considered the hub of Cape Cod with major healthcare, retail, and transportation services.

Town Governance

Barnstable is governed under a Manager-Council structure where a Town Manager carries out the administrative leadership duties while policy decisions are made by an elected council of thirteen members. Mark Ells has served as the Town Manager throughout the development of the HCA with Vineyard Wind. Compared to surrounding communities, Barnstable is relatively large and has more experience with major industrial projects. Nonetheless, the offshore cable landing and the potential for a HCA was of a scale and type that exceeded the town's experience and expertise, requiring external legal assistance and technical review.

FIGURE 4:
Covell's Beach, Barnstable

PHOTO CREDIT: JENNETTE BARNES / CAI

2 Mashpee Wampanoag Tribe. (n.d).

3 Data USA. (n.d.) *Barnstable Town, MA.*

Barnstable's Conservation Commission, which was responsible for some of the local review of the onshore transmission and grid interconnection infrastructure, is made up of volunteers appointed to the board. While commissioners commonly review neighborhood-scale projects, interviewees noted that the infrastructure and technology to be considered for the project far exceeded the scale and complexity of prior reviews.

Environmental and Water Concerns

All the region's drinking water is sourced from a single aquifer beneath Cape Cod. Past incidents of contamination and the inherent vulnerability of relying on a single-source underground aquifer contributed to unease amongst residents of the Cape regarding continued access to clean and safe drinking water. Concerns about groundwater contamination are frequently raised around infrastructure projects in the region.

Sewer management has been a longstanding and an increasingly pressing issue in the area, and a costly one that historically lacked funding support.[4] A majority of properties on Cape Cod rely on septic systems, and nutrient-dense wastewater that flows into the septic tanks eventually percolates into the soil and contributes to invasive weed and algae growth in local ponds.[5] This is a growing environmental concern, particularly as the Cape's population has increased rapidly over the last few decades. To remedy this, Barnstable is installing a public sewer system and is responsible for funding upgrades, while parcel owners must pay to connect to the system. In total, the 30-year plan is expected to cost the town approximately $1.4 billion.[6]

Several environmental organizations active on the Cape work to protect the region's sensitive water resources and habitats, including the Association to Preserve Cape Cod and the Cape Cod Climate Change Collaborative. Coastal erosion, sea level rise, and flooding are ongoing concerns due to climate change.[7]

A History with Offshore Wind

The region has a long history with offshore wind. In 2001, the Cape Wind project proposed the placement of up to 130 wind turbines as close as 4.8 miles off the coast in the Nantucket Sound.[8] Highly controversial with the local community at the time, Cape Wind faced fierce opposition from residents, environmental groups, and influential political figures, including the late Senator Ted Kennedy, who cited concerns about visual impacts, harms to marine ecosystems, and navigational hazards for fishermen and boaters.

Despite securing key federal and state approvals, lawsuits, regulatory hurdles, and the loss of critical financing and power purchase agreements ultimately led to cancellation of the project in 2017.[9] The protracted battle left deep scars in the communities of Barnstable, Nantucket, and Martha's Vineyard, which were among those with the most exposure and saw the most organized opposition to offshore wind in the country.

Regulatory Environment

Federal Requirements

- **National Environmental Policy Act (NEPA):** Because Vineyard Wind proposed to construct in federal waters, the Bureau of Ocean Energy Management (BOEM, part of the U.S. Department of the Interior) was responsible for approving, approving with modifications, or disapproving Vineyard Wind's construction and operations plan. As the lead federal agency, BOEM prepared an environmental impact statement (EIS) pursuant to NEPA.[10]

4 Moran, B. (2024, February 12). *Cape Cod needs to clean up its water. The solutions could cost billions.* WBUR.

5 Cyr, J. & Peake, S. (2023, April). *Protecting Cape Cod's Water Through Wastewater Management.* Barnstable County.

6 Barnstable Water Resources. (n.d.) *Anticipated Costs.* Town of Barnstable.

7 Association to Preserve Cape Cod. (2023). *Hanging in the Balance: An urgent call for protecting Cape Cod's natural resources.*

8 Bureau of Ocean Energy Management. (n.d.) *Cape Wind.* U.S. Department of the Interior.

9 Walton, R. (2017, December 4). *Cape Wind developers call it quits.* Utility Dive.

10 Bureau of Ocean Energy Management. (n.d.) *Vineyard Wind 1.* U.S. Department of the Interior.

- **Rivers and Harbors Act:** Section 10 of the Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the United States without a permit from the U.S. Army Corps of Engineers (USACE). Vineyard Wind proposed to perform work and place structures (including the transmission cable) below the mean high watermark of navigable waters of the United States, thereby requiring USACE approval.[11] USACE participated in the NEPA process as a cooperating agency and jointly issued a Record of Decision with BOEM and the National Marine Fisheries Service.

- **Clean Water Act:** Section 404 of the Clean Water Act requires USACE to issue permits authorizing the discharge of dredged or fill material into waters of the United States. Because Vineyard Wind proposed to discharge fill below the high tide line of waters of the United States, including pre-dredging for the transmission cable, it needed a Clean Water Act 404 permit from USACE.

- **Marine Mammal Protection Act:** The National Marine Fisheries Service is responsible for authorizing the incidental take of small numbers of marine mammals under the Marine Mammal Protection Act. Vineyard Wind requested this authorization for one year during the construction period. The National Marine Fisheries Service participated in the NEPA process as a cooperating agency and jointly issued the Record of Decision with BOEM and USACE to support its authorization.

State Requirements

- **Massachusetts Environmental Permitting Act (MEPA):** The state-level counterpart to NEPA, MEPA requires agencies to study the environmental impacts of projects requiring agency permits or other approvals, financial assistance, or land transfers, and to use all feasible measures to avoid, minimize, and mitigate damage to the environment. Because the project required action from state agencies, altered ten or more wetland acres, and exceeded dredging and priority habitat disturbance thresholds, it was subject to MEPA review.

- **Energy Facility Siting Board (EFSB):** The EFSB is an independent state board that reviews proposed large energy facilities, including transmission lines, to ensure that projects provide a reliable energy supply, with minimum impact on the environment, at the lowest possible cost. Vineyard Wind's transmission and electric grid interconnection in Barnstable was subject to EFSB approval.

Regional and Local Requirements

- **Cape Cod Commission and Martha's Vineyard Commission:** Vineyard Wind was subject to review by two regional planning bodies, the Cape Cod Commission and the Martha's Vineyard Commission, due to its impacts on more than one town in the region.

- **Barnstable and Edgartown Conservation Commissions:** Conservation Commissions are responsible for ensuring compliance with the state's Wetlands Protection Act. Vineyard Wind 1 subsea transmission cables were subject to review and approval by Conservation Commissions in the Towns of Barnstable and Edgartown.

- **Town of Barnstable:** Vineyard Wind sought an easement from the Town of Barnstable that would allow the transmission line to cross a specific part of town-owned property. For this easement to be granted, the town had to seek an appeal from the state legislature allowing an easement on land otherwise designated for public recreation.

11 Bureau of Ocean Energy Management. (2021, May 10). *Record of Decision: Vineyard Wind 1 Offshore Wind Energy Project Construction and Operations Plan.* U.S. Department of the Interior.

COMMUNITY ENGAGEMENT AND PERMITTING PROCESSES

Early Community Engagement

The Vineyard Wind project development team engaged with community organizations, residents, and town leaders early and continuously throughout the years-long development process. These community engagement efforts considered the entire wind facility, including the transmission cable landings. Vineyard Wind evaluated multiple locations for the cable landing, including the neighboring Town of Yarmouth, and early engagement around the proposed landing took place in Yarmouth and Barnstable simultaneously.

Given the region's experience with the failed Cape Wind project, the development team recognized that it would take extensive engagement, collaboration, and flexibility to foster positive community relations and gain the community buy-in needed to develop this project.

Vineyard Wind started its initial outreach in 2016, more than a year before initiating the permitting process. According to Don Keeran, an Assistant Director for the Association to Preserve Cape Cod, the developer "reached out to just about everyone," including town governments, civic organizations, minority communities, as well as neighborhood, business, and environmental groups.[12] Stakeholders generally hold the developer's community engagement efforts in high regard.

Vineyard Wind eventually hired an external engagement lead for the project, Nate Mayo, a local Cape Cod resident who was actively serving on the Conservation Commission for the nearby town of Provincetown. He brought understanding of the local community, as well as expertise in environmental, energy, and fisheries issues.[13] Local community leaders expressed a great deal of respect for Mayo in his role as Director of Public Affairs for Vineyard Wind. Nearly every stakeholder interviewed recognized him for his in-depth efforts to engage the community.

The engagement team made themselves present and available to the community for dialogue, discussion, and education. They attended public events, proactively set up conversations with residents and organizations, put out public communications and materials, and gave their contact information to anyone who had questions. They held over 100 public events including public meetings, open houses, and forums. They also set up "office hours," beginning in March 2018, where residents could drop by to discuss the project, with the option to set up a separate time to meet if the office hours were not a convenient time to meet for a resident.

Events were held in-person and virtually due to the developing COVID-19 pandemic. Vineyard Wind noted that the use of virtual meetings forced by the pandemic increased engagement from people who would otherwise not be able to attend in-person meetings, particularly older adults and seasonal residents.[14] Virtual and web tools were heavily used to connect and engage with residents.

FIGURE 5:
Public Engagement at Covell's Beach

PHOTO CREDIT: JEANETTE BARNES / CAI

12 Interview with Don Keeran, Assistant Director, Association to Preserve Cape Cod on December 12, 2024

13 Vineyard Wind. (2018, March). *Vineyard Wind Announces Hire to Strengthen Community Engagement.* Vineyard Wind.

14 Vineyard Offshore. (2023). *Winning Over a Skeptical Community: A case study in offshore wind development.*

Vineyard Wind also had a regular meeting cadence with town leadership, particularly the Town Manager, Town Councilors, and the Department of Public Works, and regularly presented updates on the project at Town Council meetings. **To increase information access for residents, the Town of Barnstable also created a webpage consolidating the region's offshore wind development projects, documents, and resources.**[15]

Federal and State Permitting

The Vineyard Wind project was subject to robust federal and state permitting processes, which kicked off in 2017. As noted, the developer started engagement efforts with the community in 2016, prior to the start of the formal permitting process.

As lead federal agency for the environmental review, BOEM held numerous public meetings and a public comment period as required under NEPA. BOEM published a Notice of Intent to prepare an EIS in March 2018 and published a draft EIS in December 2018. Federal approval of the project was delayed in 2019 after BOEM announced it needed to conduct a cumulative impact review of offshore wind projects in the region. After the federal cumulative impact analysis was complete, and under a new federal administration, BOEM published a supplemental EIS in June 2020, and a final EIS in 2021. The project received final federal approvals in 2021.[16] **More than 85% of public comments made at the hearings hosted by BOEM were in favor of the project,** and a vast majority of the more than 13,000 written comments also expressed support.[17] Many individuals and organizations, including the Cape Cod Technology Council and the Cape Cod Chamber of Commerce, filed comments of support for the project as part of federal review.[18]

The project also required a state environmental review under MEPA. Vineyard Wind filed for state review in April 2018 and received certification of its final Environmental Impact Report in February 2019. The transmission component of the project required a separate siting and permitting review process with EFSB, the Barnstable Conservation Commission, and the regional Cape Cod Commission. At the town level, the developer engaged with the Public Works Department, the Building Division through their site plan review, the Board of Health, and the Barnstable Conservation Commission. These processes provided further opportunities for public hearings and public comments. The project completed state, regional, and local permitting processes in 2020.

Local Approvals and Securing Town Easements

In addition to permitting, Vineyard Wind was also required to seek an easement from the Town of Barnstable, allowing the transmission line to cross a specific part of publicly owned property. For this easement to be granted, the town had to seek an appeal from the state legislature allowing an easement on land otherwise designated for public recreation. While the town has exclusive authority to grant easements for the use of public roadways to construct transmission infrastructure, use of the beach for project construction requires Town Council approval and a special approval of the state legislature.[19] The town sought authorization to grant an easement to Vineyard Wind for the cable landing at Covell's Beach – land held for public recreation purposes – through the legislature via H. 1771, which was approved in 2019.[20]

Compared to utilities, independent energy and infrastructure developers like Vineyard Wind often face a significantly more complex and risky process when seeking easements. In practice, the Town of Barnstable retains a form of project location veto power on requests for easements on public sites within the town, which could halt a project. Publicly regulated utilities constructing electric transmission infrastructure projects may be able to seek superseded authority from the public utility commission – the Massachusetts Department of Utilities – which can use eminent domain to condemn or force the conveyance of an easement. This authority extends to privately held land as well – making it far more certain for a utility to site a transmission project.

15 Town of Barnstable. (n.d.). *Wind Resources.* Barnstable eNEWS.

16 Vineyard Wind. (n.d.) *Permitting.*

17 Shemkus, S. (2020, August 12). *Vast majority support Vineyard Wind in federal comments for permit decisions.* Canary Media.

18 Shemkus, S., 2020

19 Article 97 of the Amendments to the Massachusetts Constitution requires that public lands meant for the conservation of natural resources or public recreation cannot be conveyed for a private purpose or be disposed of without a two-thirds vote of approval by the legislature.

20 H.1771, 191st Gen. Ct., Sess. (Mass. 2019).

As a private development project, Vineyard Wind did not have a backstop process to access land. Instead, it had to receive town and state authorization for project siting on any public land and reach an agreement with private landowners to make use of their individual parcels. Any of these steps could have been major roadblocks if Barnstable was unwilling to collaborate. Vineyard Wind's approach to early engagement and relationship building with local and state governments and individual community members was directly informed by the distinct power that the local government held over this project.

FIGURE 6:

Construction at Covell's Beach

PHOTO CREDIT: JENNETTE BARNES / CAI

FIGURE 7:

Sewer Construction Along Route of Vineyard Wind Cables

PHOTO CREDIT: CC CONSTRUCTION

DEVELOPING THE HOST COMMUNITY AGREEMENT

Vineyard Wind and the Town of Barnstable signed a HCA in October 2018. A HCA is a binding negotiated agreement between a business and the community in which the business plans to operate, detailing agreed-upon provisions around financial payments, impact mitigation, and the responsibilities of both parties.

As discussed above, developer and community discussions about the project were ongoing before a conversation specific to a HCA emerged, establishing relationships and a level of trust between the developer and many town leaders and residents. The town government began discussions with Vineyard Wind in 2016, met with them regularly throughout 2017 and 2018 and began meeting weekly, usually twice a week, in May of 2018 after Vineyard Wind was awarded the wind project bid by the State of Massachusetts. Notably, conversations around a HCA also began at the same time federal and state environmental review processes began. Through these meetings, Vineyard Wind and Barnstable were able to develop a dialogue with the community, get feedback, and understand questions and concerns.

The concept for a HCA was initially proposed by the developer, but was of interest to the town as a way to protect their interests. Town staff put together a draft framework to bring back to the developer. In a Town Council meeting presentation, Mark Ells identified Barnstable's two main objectives in negotiating the HCA: 1) to prevent interconnection to the cable that would land at Covell's Beach by another entity and 2) to protect water resources, specifically the public water supply.[21] The town felt that other federal, state, and local regulations and rules had sufficiently addressed issues like decommissioning, construction, and site safety, but these two issues, especially for a project of this magnitude, required more consideration.

Once the high-level framework was agreed to by the developer and the town, the parties began negotiations on the precise agreement terms. The back and forth on the intricacies of the document fell to the developer and town staff, including the Assistant Town Attorney Charles McLaughlin and Town Manager Mark Ells, who consulted with other local political leadership. Both Ells and Eric Stephens, Vineyard Wind's Chief Development Officer, reflected during a Town Council meeting that a majority of discussion and negotiation centered around protecting Barnstable's water resources, particularly around the substation design.[22]

Negotiations between Vineyard Wind employees and town leadership and staff largely happened behind closed doors. This was due, in part, to confidentiality requirements imposed by Vineyard Wind. Town staff were also required to sign non-disclosure agreements regarding subjects Vineyard Wind determined to be competitive businesses items. Given the significant investment required in energy infrastructure projects, this is a common occurrence. Although negotiations were closed door, the parties regularly reported out their progress at public Town Council meetings where there was opportunity for public comment.

On September 9, 2018, the Town Council authorized the Town Manager to enter a HCA with Vineyard Wind. This approval was issued by a unanimous vote of yes from all thirteen Town Councilors. The agreement was formally signed on October 3, 2018.[23] At a later Town Council meeting, **Councilman Paul Hebert responded to public comments by saying, "This is a wonderful program, I cannot tell you enough how much they have reached out to us. They have answered all of our questions. They are as concerned about the environment and the impacts on our community as we are ourselves, so I feel very confident as we move forward… The management has done a terrific job, along with the legal department to protect all the interests of our Town."[24]**

21 Barnstable Town Council. (2018, October 18). *Town Council Meeting* [Video]. YouTube.

22 Barnstable Town Council, 2018

23 Barnstable Town Council. (2018, September 6). *Town Council Meeting Minutes.* Town of Barnstable.

24 Barnstable Town Council, 2018

HCA PROVISIONS

Limiting Interconnection

The HCA includes a provision assuring that Vineyard Wind will not voluntarily permit any entity that generates energy from a location in Nantucket Sound to connect to the Vineyard Wind transmission lines, unless ordered to do so by a governmental authority. Barnstable was particularly concerned about future proposed energy development in Nantucket Sound, where the Cape Wind project had been proposed. Seeking assurance that Vineyard Wind would not voluntarily permit another generating facility to interconnect into their transmission line would help limit other energy development.

Host Community Payments

The two parties agreed to a $16 million Host Community Payment for the project, required to be paid within 25 years. Barnstable and Vineyard Wind developed a method where the annual payment amount would be flexibly tied to the developer's taxes on personal assets – if the taxes were lower, the developer could pay the $16 million over a shorter period, and if taxes were higher the payment period would be longer. This provided Vineyard Wind predictability in how much they would be expected to pay each year between the taxes and host community payments. In any given year, Vineyard Wind agreed to pay $1,534,000 combined between taxes and payments. To determine the host payment for the year, they would deduct the amount paid in taxes from $1,534,000 and the remainder would be the annual host payment for the year. If the developer paid more than $1,534,000 in taxes in any given year, there would be no host payment for the year. If the developer has not paid a total of $16 million in payments within 25 years, they will be responsible for paying the difference at that time.

Because the HCA was signed before Vineyard Wind finalized permits to land on Covell's Beach, the parties agreed to a payment of $6 million over 25 years in the event an alternate beach landing in another town was selected.

The parties also developed forward-looking provisions in the event Vineyard Wind decided to extend the life of the project or develop a second phase. Should the project remain in service after 25 years, the developer would be required to pay any outstanding payment of the $16 million, as well as an additional payment of $60,000, adjusted for inflation, for each year the project remains in service. Should Vineyard Wind choose to develop a second phase of the project using the Covell's Beach landing and substation, the parties proactively agreed to a supplemental payment. This would follow a similar structure of $16 million dollars paid over the life of the new project.[25]

Mitigation of Substation Concerns

A large focus of the discussions between Vineyard Wind and Barnstable during negotiation was on potential impacts of the on-land substation design on the local water supply. The community was uniquely concerned about use of a cooling fluid in the substation and whether there was potential for it to leach into the groundwater and contaminate the aquifer. Other issues top of mind for the community were the use of horizontal drilling to lay cables underground at Covell's Beach and potential impacts on the beach and marine ecosystem.

The HCA included provisions on specific safety standards, including broad but defined containment standards (volumes, metrics, and thresholds) for the substation, as well as commitments to involve the town in the substation design process that was still underway at the time of HCA signing. These commitments included an agreement that parties would act in good faith during discussions and that the developer would act in good faith to incorporate any design requests made by the town. An arbitration process was also established to resolve disputes.

Vineyard Wind agreed to provide up to $50,000 for the town to retain external expert consultants to review the substation design to ensure containment of any potentially hazardous materials.

Minimizing Construction Impacts

The HCA stipulated certain requirements to minimize construction impacts and limit certain construction

25 Town of Barnstable & Vineyard Wind. (2018, October 3). *Host Community Agreement.*

activities during the peak summer season. The agreement also provides that Vineyard Wind, post-construction, must revitalize existing beach infrastructure.

Sewer and Water Infrastructure Funding

The HCA also includes provisions to support upgrades to the Town of Barnstable's sewer infrastructure. These upgrades were a key focus of the HCA, and of great interest to stakeholders in the region, given that a significant portion of Cape residences rely on aging septic tanks that can leach contaminants into groundwater. The town had previously projected approximately $1.4 billion worth of needed sewer upgrades across the Cape to transition from individual on-site septic tanks to a unified sewer system. This was a significant cost which the town and its residents would have to dedicate funds to, so any way to reduce these costs was of interest.

Serendipitously, Vineyard Wind's proposed cable route followed one of the major priority areas for siting future town sewer infrastructure. The trenching construction required to lay the sewer pipes would require similar construction work that Vineyard Wind was already planning for the installation of the underground transmission cables. As a result, both parties agreed to coordinate on construction at Vineyard Wind's expense. The Town of Barnstable installed a gravity sewer system at the same time the transmission lines were buried. This system provided the backbone for the eventual sewering of roughly 1,600 parcels and will remove 25.5 kilograms/day of total nitrogen, according to the town.[26] Because Vineyard Wind covered costs for the paving, surveying, and designing of the project, Barnstable estimated savings of $3 million.[27] **This agreement not only reduced costs for the town's sewer project, which was a benefit that greatly appealed to taxpayers, but also minimized the overall construction-related impacts on the community and expedited the timeline for the sewer upgrades.**

The Town of Barnstable also chose to direct some payments from the HCA into a Water Stabilization Fund. The purpose of the fund is to make storage, distribution, and treatment improvements to the system, and to develop new wellheads. The town notes that the fund will reduce the impact on water rates charged to property owners who are part of the town's water system.[28]

FIGURE 8:
Substation for Vineyard Wind Cables

PHOTO CREDIT: JENNETTE BARNES / CAI

26 Barnstable Department of Public Works. (2020, January). *Comprehensive Wastewater Management Plan.* Town of Barnstable.

27 Barnstable Department of Public Works, 2020

28 Barnstable Town Council. (2019, January 3). *Town Council Meeting Agenda.* Town of Barnstable.

IMPACT OF THE COMMUNITY BENEFITS FRAMEWORK ON PROJECT DEVELOPMENT

The HCA, and the negotiation process that led to it, ultimately fostered a positive, collaborative relationship between the Town of Barnstable and the developer that helped the project succeed by providing mutual assurance of benefits. By building a strong relationship with town leadership, Vineyard Wind also benefited from local knowledge and expertise and reduced community opposition.

Collaborative Construction Process

As a result of coordination between Barnstable and the developer, town staff could share expertise on local conditions where the line would be undergrounded. They knew what infrastructure was already underground and how old it was, traffic conditions in the area, and other details, and therefore foresaw where challenges might arise. This kind of insight from town staff and local contractors that Vineyard Wind hired for the project proved to be helpful for the developer.

Reduced Community Opposition in the Siting Process

For the developer, having a signed HCA already in place with the town benefited the project as it went through review from EFSB, the state body that reviews large energy projects. EFSB reviews can become highly contentious when a community largely opposes a project, but support of the Town Council for the HCA made the process smoother.

The developer opted to coordinate with local authorities first, in lieu of first pursuing conversations with state agencies responsible for many of the permits. Doing so fostered a better relationship with local officials in the long run. The project received support from many local, regional, and state environmental organizations including the Association to Preserve Cape Cod[29], the Conservation Law Foundation[30], and the Sierra Club.[31]

COMMUNITY BENEFITS FRAMEWORK IMPLEMENTATION

Setting Development and Construction Standards

The collaborative discussions around the substation design between the town, the developer, and the external consultants, informed a final design which includes significantly more protective containment measures, particularly for hazardous materials, than are currently employed in the region. This design could help to set new water and environmental protection standards for new infrastructure projects in the community going forward.

Preparing the Community for Future Large-Scale Projects

Since the HCA was signed in 2018, and construction completed, more recent proposed cable landings for other offshore wind projects have become the focus. In 2022, another HCA was signed with the Town of Barnstable for cable landings from the New England Wind 1 Project. This agreement ensured another $16 million in host community payments, construction mitigation, and other measures to protect groundwater.[32]

29 Dunn, T. (2018, December 20). *Association to Preserve Cape Cod Formally Endorses Vneyard Wind.* CapeCod.com.

30 Conservation Law Foundation. (2024, January 3). *Vineyard Wind Sends Power to the Grid for the First Time.*

31 Hitt, M.A., & Pasternak, D. (2021, March 11). *Major Offshore Wind Farm Gers Final Green Light.* Sierra Club.

32 Memija, A. (2022, May 23). *Avangrid Signs Second Multi-Million Community Benefit Package with Town of Barnstable.* OffshoreWIND.biz.

BEYOND BARNSTABLE'S HCA: ADDITIONAL COMMUNITY BENEFITS FRAMEWORKS PROVIDED BY VINEYARD WIND

The HCA signed with Barnstable over the transmission cables is just one of several community benefits frameworks put in place by Vineyard Wind under the broader Vineyard Wind generation project.

2015 Vineyard Power Co-op Community Benefit Agreement

The first framework developed was a 2015 community benefit agreement between Vineyard Wind and Vineyard Power Co-op, a member-owned nonprofit in Martha's Vineyard formed in 2009 with the intent to maximize local benefits from incoming offshore wind projects and build access to renewable energy resources in the community.[33] This was the first community benefit agreement in the country for an offshore wind project. Vineyard Power Co-op was formed by community members following the termination of the Cape Wind project to be organized and coordinated once future projects were proposed. Vineyard Wind's development began shortly after formation of the co-op. The co-op's structure was fundamental in forming the foundation of the community benefit agreement framework in use across infrastructure projects today.

Vineyard Power Co-op, as the community benefits organization for the project, provides reduced rates for low-income ratepayers, subsidizes distributed energy projects, and supports infrastructure investments in Martha's Vineyard. The co-op also agreed to develop and implement educational programming around offshore wind energy to improve community awareness and support for the project.

2019 Cape Cod Resiliency and Affordability Fund

In 2019, Vineyard Wind and Citizens Energy partnered to establish a Resiliency and Affordability Fund which will contribute $1 million per year over 15 years to communities along Cape Cod. The fund is operated in part as a revolving loan and grant program that will be used for energy efficiency improvements, distributed battery energy storage and solar projects, and bill-credits to low-income residents in Martha's Vineyard and around the Cape.[34]

2020 Nantucket Good Neighbor Agreement

In 2020, Vineyard Wind and the Town and County of Nantucket, along with various nonprofits on the island, signed a Good Neighbor Agreement that established the Nantucket Offshore Wind Community Fund. Vineyard Wind contributed $4 million in seed funding, and the fund is administered by the Community Foundation for Nantucket. Also, as part of the agreement, the developer agreed to measures to reduce visual impact of the project by painting the turbines, installing an aircraft detection lighting system, and relocating some of the turbines further from Nantucket.

2021 Project Labor Agreement

In 2021, a project labor agreement was signed between Vineyard Wind and the Southeastern Massachusetts Building Trades Council that set terms for 500 union jobs for constructing the wind farm. The agreement includes targets to hire 10% women, 20% people of color, and 51% residents from surrounding counties. Vineyard Wind also committed $500,000 to a training program for low-income and underrepresented communities.

33 Vineyard Offshore. (2023). *Partners on Savings, Resiliency, and Jobs for an Island Community: A case study in offshore wind development.*

34 Vineyard Wind. (2018, March 29). *Citizens, Vineyard Wind Collaborate on Resiliency and Affordability Fund to Benefit Residents and Communities on Cape Cod, Islands and South Coast.*

2024 Tribal Benefit Agreement

The Mashpee Wampanoag Tribe and Vineyard Wind entered into a Tribal Benefit Agreement, ratified in February 2024. This agreement grew out of engagements between the Tribe and developer that began early in 2016. The Tribal Benefit Agreement establishes the Mashpee Wampanoag Tribe Offshore Wind Community Fund. The fund is dedicated for initiatives including scholarships, wastewater projects, language reclamation, workforce training, and importantly, Tribal capacity to engage with offshore wind projects. Other benefits for the Tribe include a scholarship program at a local community college and supporting the Tribe in developing solar projects.[35]

Massachusetts Offshore Wind Investments

Vineyard Wind committed $15 million across three initiatives to invest in the offshore wind industry and workforce in Massachusetts.[36] This includes $10 million for an Offshore Wind Accelerator Fund for projects that will expand and improve infrastructure, establish manufacturing facilities, and support the development of technologies that will improve offshore wind capabilities. Another $2 million is used for a Windward Workforce program which is used to train Massachusetts residents for careers in the industry. The remaining $3 million is used for a Marine Mammals and Wind Fund which provides funding for the development and demonstration of methods and technologies to enhance protections for marine mammals.

Marine and Aquatic Ecosystem Monitoring Agreements

The developer has also undertaken additional environmental mitigation efforts. In 2019, Vineyard Wind, the Natural Resources Defense Council, the National Wildlife Federation, and the Conservation Law Foundation signed an agreement to protect critically endangered North Atlantic right whales. As part of the agreement, Vineyard Wind committed to a wide range of monitoring and mitigation efforts, including restricting vessel speeds, limiting construction noise, and stopping construction during migration seasons.[37] Vineyard Wind also partnered with the University of Massachusetts Dartmouth School of Marine Science and Technology and the New England Aquarium Cabot Center for Ocean Life on long-term studies of species in their lease area.

National Historic Preservation Act Section 106 Memorandum of Agreement

A memorandum of agreement between BOEM, the Massachusetts State Historic Preservation Officer, Vineyard Wind, and the Advisory Council on Historic Preservation was signed as part of requirements under Section 106 of the NHPA. The agreement includes conditions and mitigation measures to protect cultural resources of the Mashpee Wampanoag Tribe and the Wampanoag Tribe of Gay Head.

35 Mashpee Wampanoag Tribe. (2024, March 21). *Mashpee Wampanoag Tribe and Vineyard Offshore Forge Historic Tribal Benefit Agreement.*

36 Vineyard Wind. (n.d.) *Committing $15m to make Massachusetts the center of the offshore wind industry.*

37 Vineyard Wind. (n.d.) *Benefits.*

CONCLUSION

Vineyard Wind and the Town of Barnstable co-developed a HCA that provided Barnstable with financial benefits from hosting transmission assets, addressed community concerns around water contamination, and supported the town's progress toward its long-term sewer upgrade project. Vineyard Wind's early and meaningful community engagement was highly successful in a community fresh off the heels of a failed and contentious offshore wind project. Intentional relationship building and collaboration with town leadership helped secure the support necessary for the project to obtain all necessary federal, state, and local approvals.

While many stakeholders praised Vineyard Wind for their proactive and thorough engagement, they also flagged that the developer benefitted from being an early mover in the region and was able to get by with some pro-wind momentum in the community. Subsequent projects and different developers have had different experiences, where political preferences and growing community opposition are creating a more challenging project development landscape.

New Town Councilors are more skeptical of the growing offshore wind industry and have indicated they would like to see more out of a HCA. Meanwhile, throughout the region, offshore wind opposition has grown rapidly and is well funded. Some interviewees expressed that developers have not conducted community outreach and engagement as thoroughly as Vineyard Wind, further contributing to challenges. Interviewees cautioned that while the Vineyard Wind and Barnstable HCA was a positive example, this community benefits framework is not necessarily a one-size-fits-all model for the region.