ECONOMIC NARRATIVE

Added text to capture supplemental questions can be found in blue.

DRI Vineyard Wind Maintenance Building (DRI 81-M3)

Date: 2/10/2021, Update 3/27/2022

The proposed O&M Building at 61 Beach Road if permitted and constructed in alignment with Vineyard Wind 1's anticipated construction timeline, will provide critical support to the 800 MW offshore wind farm. The O&M Building will service and the centralized location for spare parts, technicians support facilities, and space for the site team to work. In summary the proposed project offers the following benefits to the town of Tisbury:

Economic Benefits

- Will provide an estimated 36 much needed well-paying year-round jobs for our island community.
- These jobs are anticipated to last for the entire project- which is expected to be for 25 years.
- This new sector will train workers in the necessary technical skills and will diversify our island economy.
- Brings economic development to our community by providing new economic opportunities in the offshore wind industry.
- Will create a centralized control facility that has the unique ability to provide operational and maintenance services for offshore wind farms

Environmental Benefits

- Will support the reduction in global greenhouse gas emissions by providing critical services required to support offshore wind farm.
- Support of critical offshore wind farm infrastructure projects will be a key measure we can take that addresses our need to mitigate climate change and have a positive impact on sea level rise and reduce potential negative impacts to our coast shorelines and ocean acidification impacts.

Aligns with the Town of Tisbury Goals

- Project proposed use are consistent with the Town's strategic objectives of maintaining a working waterfront through facilitating marine support activities
- Will improve the Beach Road corridor for both business and recreational usages.
- Will support our efforts to become a 100% fossil fuel free economy
- Project will maintain and improve the aesthetic of Beach Road

Aligns with the MVC's Comprehensive Planning Documents

- The Project is a key component of the Nation's first major offshore wind farm project. Locally produced offshore wind is an essential for our community to achieve its aspirational goals to have 100% of our electricity from renewable sources, a key objective of the Island Plan adopted by the MVC in 2009

- The Project will enable our economy to transition to a more balanced and diverse, year-round economy that offers higher paying jobs and more opportunities for people who grow up here to stay or return. A key objective of the Island Plan.
- The Project is consistent with goals defined in the MVC Energy Policy for DRI Review which was adopted in May 2021 by enabling us to reduce fossil fuel consumption, mitigate climate change, increase reliability of supply, beneficial economic development and improve environmental and health outcomes.

Operations at the O&M Building:

The O&M Building will support a number of uses including marine support through the storage of spares for the offshore wind farm, technician support, and office staff facilities for the onshore support staff all of which are critical in maintaining the offshore operations. Office staff (approximately 12) are expected to arrive and depart the O&M Facility each day during typical working hours arriving in the morning and departing in the afternoon. As frequently as daily and also largely influenced by weather, warehouse managers and technicians are expected to arrive to the O&M Building in the early morning.

An example of a typical daily workflow of technicians when the weather is acceptable to travel by vessel offshore can be found in Figure 1 below When technicians arrive, they will need be briefed on the activities of the day(s) including participation in safety trainings, change into their protection equipment (PPE), and gather and necessary maintenance equipment/tools. They will then depart to the Quayside either by shuttle or by walking. The technicians are expected to then sail offshore, complete the maintenance activities, and return to the O&M building at the end of the workday. Upon returning, the technicians will handle any waste, return PPE, finish required reporting, utilize welfare facilities, and return home.

Figure 1: Flow of Technicians Through the O&M Building

The Jobs Created by the O&M Building:

The 2018 Massachusetts Offshore Wind Workforce Assessment provides a comprehensive analysis of the workforce needs and economic development impacts associated with the deployment of offshore wind in Massachusetts. The report describes the jobs associated with planning, constructing, and servicing offshore wind projects and provides information on the education, skills and health and safety credentials required for each job. Table 1 below summarizes the relevant job titles, descriptions, typical qualifications, and salaries from the Workforce Assessment. The jobs and salaries listed are indicative of what will be expected. Table 1 is the best information that can be provided. Actual salaries will only be known after employees are hired as these are individually negotiated and a case-by-case basis.

Table 1: Expected Job Titles, Education Credentials, Average Wages and Descriptions

Potential Job Titles[1]	Common Education Credentials	Average[1] Annual Wage	Description[1]
Onshore Site Staff			
OSW Plan Operator(s)	Bachelor's	$89,225[2]	Direct all O&M activities and daily activities of power generation, coordinate teams of technicians, contractors, and equipment suppliers, and manage the supply of components that operations must maintain to service turbine.
Warehouse Manager / Storage & Distribution Manager	Associate's	$124,515[2]	Completes various management, organization, and planning tasks to maintain high performance of the warehouse's storage and shipment processes. Is aware of the safety regulations and have experience managing the logistics of an industrial supply chain.
Electrical Engineer	Bachelor's	$128,260[2]	Primarily responsible for remotely monitoring the OSW plant's electrical systems and power production levels during the O&M phase to ensure that the turbines are functioning properly and efficiently. This position requires a bachelor's or master's degree in electrical engineering, experience working in the electrical transmission or generation industry, experience with Supervisory Control and Data Acquisition (SCADA) or other supervisory control systems, and training from turbine equipment manufacturers on proprietary software and hardware.
Mechanical Engineer	Bachelor's	$111,205[2]	Support the maintenance team by developing and executing a service and maintenance plan, and supervising a team of technicians, occasionally offshore.
Quality Engineer / Manager	Bachelor's	$108,180[2]	Assist the O&M team with developing and maintaining quality control standards for turbine operation and maintenance. This position requires a bachelor's or master's degree in engineering with a concentration in civil, electrical, or mechanical engineering, and an understanding of how the different systems of a turbine interact to produce energy efficiently, and what interventions improve energy production.
Health and Safety Engineer / Manger	Bachelor's	$115,690[2]	Develop and maintain compliance for safely performing maintenance on the turbines, crew transfer, and warehouse duties. This position requires a knowledge of turbine systems and the duties of O&M workers to understand the limitations of components and potential hazards, and a bachelor's degree in engineering with experience in industrial health and safety monitoring.

[1]All salaries are indicative and derived from the Workforce Assessment. The actual compensation for workers may be more or less than stated in Table 1

[2]The Average Annual Wage inflated to 2021 dollars, as determined by the US Bureau of Labor and Statics (https://www.bls.gov/data/inflation_calculator.htm)

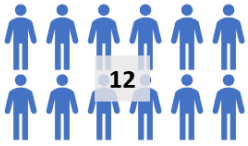
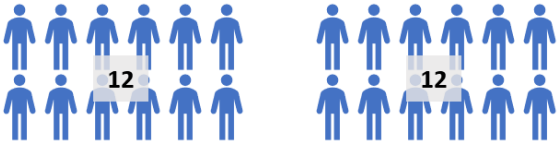
Offshore Technicians			
O&M Technicians	Post-secondary Training or Associate's	$78,845[2]	Account for the bulk of the O&M workforce. They conduct both routine and emergency maintenance on all equipment inside the nacelle after receiving training from the manufacturer. Becoming an O&M technician requires a high school diploma and knowledge of turbine mechanical, hydraulic, and electrical systems. Willingness and physical stamina to work in hazardous conditions is critical. Trade workers/construction laborers who worked on the construction of the wind farm are considered well qualified to transition into this role.

[1]All salaries are indicative and derived from the Workforce Assessment. The actual compensation for workers may be more or less than stated in Table 1

[2]The Average Annual Wage inflated to 2021 dollars, as determined by the US Bureau of Labor and Statics (https://www.bls.gov/data/inflation_calculator.htm)

The above table is representative of the types of jobs expected at the O&M Building. Utilizing the Table 1 above, Vineyard Wind 1 has assessed the estimated quantity of jobs created at the O&M Building under review and associated salaries. The estimated jobs created can be found in Table 2 below. These anticipated jobs include an estimated 12 all year onshore site staff, 24 all year technicians working in two weeks off, two weeks on patterns, and 20 seasonal technicians similarly working in two weeks on two weeks off pattern in the peak summer months from May 1 to November 1. Shift work is normal practice in the offshore wind industry due to long working days offshore.

Table 2: Expected Jobs & Salaries at the O&M Support Building

	Jobs Associated[3]	Range of Salaries[4]
All Year Onshore Site Staff Jobs	12 Total Persons 	$89,225 - $128,260 Median: $113,445
All Year Offshore Technicians	24 Total: Rotating 12 Techs on / 12 Techs off every 2 weeks 	$78,845
Seasonal Offshore Technicians	20 Total: Rotating 12 Techs on / 12 Techs off every 2 weeks 	$78,845

[3]The number of jobs associated at the O&M Support building is based on current project knowledge. The actual number of jobs in each category may be more or less than indicated in Table 2 and will be refined as the project progresses.

[4]The Average Annual Wage inflated to 2021 dollars, as determined by the US Bureau of Labor and Statics (https://www.bls.gov/data/inflation_calculator.htm) All salaries are indicative and derived from the Workforce Assessment. The actual compensation for workers may be more or less than stated in Table 1.

Housing needs evaluation:

Vineyard Wind 1 has evaluated the housing need utilizing the below local content targets and strategy. In order to reach the project goals of 100% local employees by year 5 of operations, the project is projecting the following local content targets shown in Table 3 for the all-year jobs created by the project.

Table 3: All Year Jobs Local Content Rollout Targets

Year	Total	Local Job Target	Local Content %
Year 1	36	18	50%
Year 3	36	27	75%
Year 5	36	36	100%

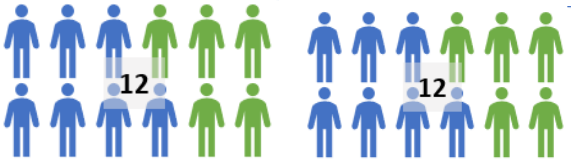
In order to reach this goal Vineyard Wind 1 plans to:

- Proactively advertise all job opportunities on island including distribution by flyers, newspaper articles, online articles, promotion through the MV Times, Vineyard Gazette and other news entities
- The project plans to hold multiple on island Open House events leading up to the start of operations including a technician's focused event in April and a wider job hiring event later in the year
- The project plans to create a home page to assist in connecting islanders to the job oppurtinuty of Vineyard Wind and our contractors.
- Engage with our community partner Vineyard Power and other groups including veterans to ensure promotion and communicate of all job opportunities

Vineyard Wind 1 housing needs were derived from the jobs created and the percentage of jobs filled by local workers upon the start of the operations at the O&M Building. These assumptions can be found summarized in Table 4 below. Table 4 refers to year 1 of operations. The project anticipates needing to provide 21 employee beds at year 1. The project will reevaluate needs on years 3, 5 and periodically thereafter. As workforce efforts continue and experience is being developed on Martha's Vineyard, we expect to fill more jobs locally.

- Persons identified in GREEN indicate this person is considered "Living Locally" on island through local employment or decide to move to the island either by purchasing or renting.
- Persons identified in BLUE are anticipated to require housing support and is the basis for what Vineyard Wind will take the responsibility to secure as memorialized in the housing offer proposal found below.

Table 4: Expected Housing Need

	Jobs Associated	Beds Needed
All Year Onshore Site Team Jobs	12 Total Persons, 8 Living Locally[5] 	4 BEDS 
All Year Offshore Technicians	24 Total: Rotating 12 Techs on / 12 Techs off every 2 weeks[6] 5 Techs per shift Living Locally[5] 	7 BEDS 
Seasonal Offshore Technicians	20 Total: Rotating 12 Techs on / 12 Techs off every 2 weeks[6] No seasonal techs considered Living Locally[5] 	10 Beds 
TOTAL	21 BEDS	

[5]We have evaluated each job based on the skills necessary and have determined how many could be reasonably filled with local workforce. These are estimates utilizing the best information to date. When it comes to the start of year 1 of operations these numbers will be converted to actuals and updated periodically. As one example, the project estimates it will need up to seven highly skilled technicians (with 3 to 4 years of wind technicians experience) at the start of operations and the project does not anticipate this skill to be currently available on Martha's Vineyard. However, the project expects to hire warehouse managers in which the probability that this position could be sourced locally is much higher.

[6]Shift Work is defined as 2 weeks on and 2 weeks off. This is normal practice in offshore wind due to long working days offshore.

[7]The expected housing needed is based on the number of employees living locally. The number of beds needed is expected to decline as local residents are staffed as the project retains more local residents. The amount of housing needed will be evaluated at 2-year intervals after the start of operations.

[8]All non-local employees are anticipated to be employed on a permanent basis though they may spend only a portion of their time on Martha's Vineyard. If they do not live locally, these persons have and will be included in the bed count estimates above.

Compliance with MVC Housing Policy

Vineyard Wind 1 anticipates meeting the goals of the MVC Housing Policy (July 2019) by making available offsite dwelling units to accommodate the housing impact of the project on affordable or community housing. More particularly, the project anticipates working with experienced, local year-round developer(s) to provide housing units capable of housing all project employees that are not living locally. If for any reason the project cannot supply sufficient dwelling units to meet the need, then it will identify

other means to comply with the MVC Housing Policy. The project is considering offering the conditions set forth below:

As offered by the Applicant:

1.1 Applicant shall fulfill its Housing Mitigation as provided in Section 3A.1 of the MVC Housing Policy (July 2019), except as provided in section 1.3 of this offering.

1.2 Applicant shall make available offsite beds in dwelling units to accommodate the housing impact of Development employees except those who are living on Martha's Vineyard in market rate housing.

- The number of beds within the dwelling units needed is calculated by adding the sum of the Development's actual FTE onshore staff jobs, year-round offshore FTE technicians, and seasonal offshore FTE technicians and then subtracting the number of FTE jobs fulfilled by persons not living on Martha's Vineyard and those Martha's Vineyard residents living in market rate housing.
  - For example, due to rotational work schedules where 1 technician is on island for two weeks and 1 technician is on for the following two weeks, these two technicians are equivalent to 1 FTE in the context of the bed that will be made available. As is common with offshore maritime work the offshore technicians will work a two-week rotating shift, i.e., two weeks on-two weeks off. For this reason, the Development will make available housing needs assuming the two technicians will share a common space at opposite intervals. One technician will utilize the space while on their two-week rotation while the other technician is off island for their two weeks off time. This will rotate every two weeks.
  - Applicant's current estimate of need as of the time the Development commences operation is 21 beds.
  - The Applicant's estimate shall be updated approximately 6 months before the expected date of the Development's certificate of occupancy.
  - The actual need shall be measured when the Development obtains its certificate(s) of occupancy. The need shall be re-measured at year 3 and year 5 of the first five years after the certificate(s) of occupancy, and at most 5-year intervals after the first 5 years until 15 years after the certificate of occupancy. The actual need can increase or lower the number of required beds.

1.3 If for any reason the Development cannot make available sufficient beds in dwelling units for Development employees who are not Martha's Vineyard residents living in market rate housing, then it will make a $2,500 annual payment for each bed in a dwelling unit that the project does not make available.