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Martha's Vineyard Commission

DRI 725 – Vineyard Wind Hangar

MVC Staff Report – 2022-7-21 UPDATED

1. DESCRIPTION

- 1.1 **Owner:** Dukes County (Martha's Vineyard Airport)
- 1.2 **Applicant and leaseholder:** Vineyard Wind 1 LLC (Sarah Schweitzer)
- 1.3 **Project Location:** 17 Hangar Road North (Parcel 28-1-5), West Tisbury (Martha's Vineyard Airport; 0.441 acres)
- 1.4 **Proposal:** Replacement of a hangar built in 1973 with a new hangar.
- 1.5 **Zoning:** Light Industrial (LI2)
- 1.6 **Local Permits:** Martha's Vineyard Airport Commission, building permit, planning board
- 1.7 **Surrounding Land Uses:** Martha's Vineyard Airport, including other aviation hangars.

- 1.8 **Project History:** The existing sheet metal hangar was constructed in 1973 on the site of a previous hangar used during World War II, and in recent years has been used for the storage of airport equipment and other material. The new hangar will provide helicopter support to the Vineyard Wind offshore wind development about 23 miles south of the Island. Martha's Vineyard Airport was chosen for the facility due to its proximity to the windfarm.

- 1.9 **Project Summary:** The proposal is to demolish the existing 8,058 ft² metal hangar and build a new 9,014 ft² metal hangar in its place, including a new foundation, parking area, and fencing. The new hangar would be used by Vineyard Wind and its contractors, and include space for a helicopter, as well as storage space, staff areas, a locker room, and restrooms. The facility is intended to serve the 30-year operational life of the Vineyard Wind development. The airport has stated that the equipment it stores in the current hangar will be stored elsewhere, without the need for an additional building. The airport would own the lease for the new hangar, and once the lease expires, the airport would potentially own the hangar as well.

2. ADMINISTRATIVE SUMMARY

- 2.1 **DRI Referral:** Martha's Vineyard Airport Commission, March 24, 2022
- 2.2 **DRI Trigger:** 3.1b (3,500+ ft² commercial development), 7.1a (Facility for transportation to or from the Island)
- 2.3 **LUPC:** June 27, 2022
- 2.4 **Public Hearing:** July 21, 2022

3. PLANNING CONCERNS

3.1 Traffic and transportation

The project will provide year-round helicopter support for the Vineyard Wind development located about 23 miles south of the Island. According to the applicant, "Helicopters can be used when

rough seas and weather limit or preclude the use of other means of access offshore as well as for fast response visual inspections and repair activities, as needed. . . . The Martha’s Vineyard Airport has been identified as an ideal location for helicopter support as it is closest to the Lease Area.”

“The helicopter crew and offshore wind technicians will utilize the proposed hangar facility when required for flight planning, safety trainings, helicopter maintenance, and as a standby area while waiting to be shuttled offshore to the Project.” The applicant has clarified that a proposed “ticket desk” is for the purpose of checking in authorized passengers and equipment, not for selling tickets.

According to traffic projections submitted as part of DRI 277 (Tisbury Marine Terminal Expansion) in Tisbury, ground traffic associated with the hangar would be generated about 251 days per year, with 33 average daily trips and a peak of 34 daily trips in season. The applicant has stated that truck traffic to and from the hangar (typically one pickup load per day) would be scheduled to avoid peak-hour traffic.

Plans call for 18 parking spaces behind the hangar. The applicant has stated that the existing hangar had at one time had about 20 private parking spaces, but further details were not provided.

3.2 Energy / climate change resilience

The project will facilitate regular helicopter trips to and from the Vineyard Wind development south of the Island, which will supply 800 MW of renewable energy to the ISO New England Grid and is estimated to reduce CO₂ emissions by about 1.6 million tons per year.

The applicant has stated: “When looking at environmental considerations of helicopter use, the Vineyard Wind 1 project has demonstrated that, without any additional mitigation, direct carbon dioxide emissions from construction, operation, and decommissioning of the project would be offset after less than five months of operation by displacing electricity produced by fossil fuel power plants. This carbon reduction is equivalent to taking 325,000 cars off the street annually.

The helicopter may operate in lieu of the offshore vessels that will be berthed at the Operations and Maintenance Terminal in Vineyard Haven, including when a faster response it needed, or when vessels would need to reduce their speed to protect North Atlantic right whales.

The applicant has stated that the proposed hangar will be all-electric with rooftop solar panels. Various other [green energy goals](#) have also been proposed, pending input from the MVC.

3.3 Noise

The helicopter will operate year-round as needed and depending on weather, with scheduled and unscheduled trips to the windfarm. The airport has stated that it cannot discriminate against aviation activities or dictate flight patterns, but is currently applying for federal funds to review the impacts of aviation activities on the Island, including flight schedules and patterns, and determine if mitigation is necessary. That review will likely take place over several years.

The applicant estimates about 2-4 round trips per day for the helicopter, “contingent on weather, seasonal variability, and safety,” and about 300 days per year based on historical weather data. This estimate aims to account for both scheduled and unscheduled trips. The applicant notes that prior to proceeding offshore, the helicopter would reach higher altitudes than helicopters used for news coverage or sight-seeing. The projected flight paths over the Island have not been determined, although the applicant will participate in the airport’s voluntary [Noise Abatement “Fly Friendly”](#) program to help reduce potential impacts, and the helicopter operator will execute a memorandum of understanding with the airport and FAA Contract Control Services regarding noise mitigation subject to FAA regulations. The type of helicopter shown on the plans is an AgustaWestland AW169, which has a twin engine and 10 seats, and weighs about 9,920 pounds. (The Noise Abatement program is divided according to aircraft weighing under and over 12,500 pounds.) The airport has stated that the proposed MOU would subject the helicopter operator to air traffic control direction while within the air traffic control area of the airport (4.2 nautical miles and up to 2,499 feet altitude), so violation of the MOU would amount to violation of federal regulations.

The primary purpose of the helicopter is to deliver crew members to the offshore substation, where the turbines connect before electricity is sent to the mainland. The applicant has stated that the helicopter would not be used for hovering. The helicopter would operate in addition to the future crew transport vessels (CTVs) berthed in Tisbury, and take about 15 minutes to get to the windfarm, compared to about 1.5-2.5 hours for the vessels. There are no plans to operate more than one helicopter out of the proposed facility. The applicant has stated the following, in terms of why both the helicopter and CTVs are required:

Historical weather data indicates the helicopter can access the wind farm more days annually than Crew Transfer Vessels (CTV) can. The Helicopter can provide emergency response quicker in certain weather conditions and can dispatch technicians when trouble shooting is required. The CTVs, unlike the Helicopter, have the ability to carry the majority of spare parts, consumables, equipment, and supplies that are critical for the maintenance of the wind farm in addition to the technicians. As previously discussed, the project has time of year vessel speed restrictions from November 1 – May 1 to protect the endangered North Atlantic Right Whale. It is during those times that the helicopter is most advantageous. Outside of the time of year and weather restrictions, the CTVs are an optimal and regular solution to access the wind farm and to transfer technicians.

The facility is intended to serve the 30-year operational life of the windfarm.

3.4 Housing and economic development

The applicant has stated that all of the onshore technician jobs associated with the hangar have already been [accounted for](#) as part of the Vineyard Wind maintenance building project in Tisbury (currently under review as DRI 81-M3). Jobs associated only with the hangar would include five helicopter crew members, including pilots and maintenance crew.

The recommended monetary mitigation under the housing policy would be \$7,648:

956 ft² of new development X 1 (Warehouse Multiplier) X \$8 = \$7,648

3.5 Water quality

Some regulated hazardous materials will be stored onsite, including liquid petroleum gas. To comply with airport regulations, all material stored onsite must be for aviation purposes.

The applicant has stated that the fire suppression system for the hangar would not involve fire fighting foam, which contains PFAS and has caused groundwater contamination at the airport. The applicant has also stated that testing onsite did not reveal any existing PFAS.

The project will be connected to the airport's wastewater treatment facility.

3.6 Stormwater

The applicant has stated that 100% of the site would remain impervious, with some minor landscaping. A drainage plan for the building, showing downspouts, PVC drains, and an infiltration system under the parking area, has been provided.

3.7 Material usage

The current hangar (including an office area, breakroom, and bathroom) is considered to be in poor condition, and there are no plans to salvage any of the existing materials. All steel and debris would be separated and scrapped or recycled as appropriate. The existing concrete foundation (about 5" thick) is also considered to be in poor condition. A [structural evaluation](#) of the existing hangar and foundation, by Rescom Architectural Inc., recommends the following:

1. *A new foundation may need to be installed.*
2. *New interior slab or patch and go over.*
3. *New perimeter foundation insulation.*
4. *New roof and wall panels.*
5. *Structural upgrades to structure to meet today's wind and seismic loads. Review structural*
6. *roof loading for solar options.*
7. *New building insulation*
8. *New bi-parting hanger door.*
9. *New interior build out for proposed program.*
10. *New utilities.*
11. *There is a potential need for a fire sprinkler system. We do not believe one is required by*
12. *the building code based upon the building size and use. The West Tisbury building*
13. *department is reviewing our findings and will give us a definitive answer.*
14. *New building fire alarm.*

3.8 Safety

The applicant has stated that the existing hangar has no fire suppression system, and the proposed hangar will have sprinklers. Flight safety procedures, including training for anyone boarding the helicopter, will be implemented onsite. (Actual flight training would occur offsite.)

3.9 Character and identity

The new hangar will replace an existing hangar similar in size and appearance, with metal framing and exterior. The new hangar would be 27'3" at the ridge, which is about four feet higher than the existing hangar, but not higher than the recently constructed fire station at the airport. Existing and proposed elevations have been provided.

3.10 Landscape

The applicant has stated that the project would require removing three trees (as requested by the airport), and that landscaping would include grass and shrubs and comply with airport guidelines. A landscape plan has not been provided.