

April 1, 2024

Ms. Tanowa Troupe, Secretary
Ohio Power Siting Board
Docketing Division
180 East Broad Street, 11th Floor
Columbus, OH 43215

Re: Case No. 20-417-EL-BGN
In the Matter of the Application of Grover Hill Wind, LLC for a Certificate of Environmental Compatibility and Public Need to Construct a Wind-Powered Electric Generation Facility in Paulding County, Ohio.

Case No. 23-459-EL-BGA
In the Matter of the Application of Grover Hill Wind, LLC to Amend its Certificate Issued in Case No. 20-417-EL-BGN.

Compliance with Condition 24 – Bird and Bat Mitigation Plan

Dear Ms. Troupe:

Grover Hill Wind, LLC (“Applicant”) is certified to construct a wind-powered electric generation facility in Paulding County, Ohio, in accordance with the orders issued by the Ohio Power Siting Board (“OPSB”) in the above-referenced cases.

At this time, the Applicant is filing the attached Bird and Bat Mitigation Plan in compliance with Condition 24 of the OPSB’s December 15, 2022 Order in Case No. 20-417-EL-BGN. This information was provided to OPSB Staff on April 1, 2024.

We are available, at your convenience, to answer any questions you may have.

Respectfully submitted,

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BIRD AND BAT MITIGATION PLAN

Grover Hill Wind Project

Paulding County, Ohio

MARCH 29, 2024

PREPARED FOR:



PREPARED BY:

Westwood

Bird and Bat Mitigation Plan

Grover Hill Wind Project

Paulding County, Ohio

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Project Number: R0015695.00

Date: March 29, 2024

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1.0 Introduction

Grover Hill Wind, LLC (Grover Hill) is certified to construct and operate an up to 150-megawatt (MW) Wind Project located in Paulding County, Ohio (hereafter referred to as Project or Facility). The Project will be constructed on approximately 9,600 acres of land in portions of Latty Township (Project Area). This part of northwest Ohio is home to several operating, utility-scale wind farms including Timber Road Wind Farm (100 MW), Northwest Ohio Wind Energy Project (100 MW), and Blue Creek Wind Farm (304 MW).

On October 7, 2022, Grover Hill and the Ohio Power Siting Board (Board) Staff filed the Joint Stipulation and Recommendation (Stipulation) on the Board's Docket Information System (Docket). The Board issued its Opinion and Order in Case No. 20-417-EL-BGN on December 15, 2022, adopting the Stipulation and authorizing the Grover Hill to construct, maintain, and operate an up to 150-MW wind-powered electric generating facility in Paulding County, Ohio (Certificate) Certificate Condition Number 24 requires that 60 days prior to the preconstruction conference Grover Hill will develop a Bird and Bat Mitigation Plan ("Mitigation Plan"). The purpose of this Mitigation Plan is to create an adaptive management framework to be implemented in the event of a significant mortality event (SME).

As defined in the Ohio Department of Natural Resources (ODNR) *Onshore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio* (2009), ODNR defines an SME as when greater than five birds/bats at a single wind turbine generator (WTG) and/or greater than 20 birds/bats across the entire facility are encountered during post construction mortality monitoring (PCMM). Noted in Certificate Condition 23, a PCMM plan will be drafted and filed in the Docket 60 days prior to the first turbine becoming operational. Therefore, although instrumental in detecting SME's, this Mitigation Plan is not intended to incorporate detailed PCMM methodology. Furthermore, this Mitigation Plan reflects the current understanding of the proposed Project and its associated required actions. The scope is subject to change as methods, thresholds, and assumptions presented in this Mitigation Plan will be discussed with ODNR biologists to ensure that all methodologies and thresholds are approved and acceptable to the regulatory agencies prior to the start of fatality monitoring.

2.0 Project Background

The Project will consist of wind turbine generators, electric collection cables, a new Facility collection substation, permanent meteorological towers, a permanent Operations and Maintenance (O&M) facility, a temporary laydown yard for construction staging, and private access roads. 23 turbines are expected to be constructed, each with a nameplate capacity rating of 3.0 to 6.4 MW. Of the approximately 9,600-acre Project Area, a total of 155 parcels consisting of 6,500 acres are owned, currently under lease, or will be under lease prior to the construction and operation of the Project. Approximately 142.8 acres of land will be disturbed during construction. Much of this disturbance will be temporary, and subject to restoration activities at the end of Facility construction. Following restoration, the permanent operating footprint of the Facility will be approximately 18.8 acres of built facilities, or approximately 0.3% of the total leased lands (6,500 acres) within the Project Area. The power will be delivered from the Facility collection substation to a point of interconnection (POI) at the existing American Electric Power (AEP) 138 kilovolt (kV) substation immediately west of The Village of Haviland, in Paulding County, Ohio.

The Project area is located in rural open space, generally consisting of agricultural fields and farmsteads on a gently rolling landscape. A total of seven land cover types are recognized and mapped within the Project Area (NLCD 2016). Approximately 89 percent of the Project Area is composed of cultivated cropland while the remaining 11 percent consists of developed land (7 percent), forest (3 percent), herbaceous (1 percent), and woody wetlands, open water, and emergent herbaceous wetlands (less than one percent).

3.0 Mitigation Plan

A mitigation plan is intended to establish an actionable pathway to mitigate bird and bat mortality. Here we map out clear thresholds and triggers that demonstrate how Grover Hill will comply with the required mitigation and monitoring that is required if one or more SME’s are recorded onsite. As noted in Stipulation Condition 24, the Plan shall include: 1) a mitigation component, in which curtailment regimes shall be increased beyond those required by the Certificate for a duration of two weeks immediately following a SME, and for two weeks before and after the dates of SME’s for subsequent years of operations; and 2) a monitoring component, in which post-construction avian and bat monitoring will be extended.

Mitigative Curtailment

Under current curtailment requirements outlined in Certificate Condition 25, the Project will commence operations by implementing a nighttime curtailment regime using a 6.9 m/s cut-in wind speed from March 15 through May 15 and August 1 through October 31. A nighttime curtailment regime will also be implemented at wind speeds below 7.5 m/s from September 1 through September 30 (**Table 1**).

Table 1: Project curtailment regime to be implemented upon commencement of facility operations.

Curtailment Period	Cut-in Speed
March 15 - May 15	6.9 m/s
May 16 - July 31	Feathered to manufacturer's Cut-in speed
August 1 - August 31	6.9 m/s
September 1 - September 30	7.5 m/s
October 1 - October 31	6.9 m/s

As required as part of Certificate Condition 24, Grover Hill is committed to increasing curtailment when triggered by an SME. Using the season-specific cut-in speed as a baseline, Grover Hill proposes an incremental increase in curtailment, as shown in **Table 2**, until SME’s are no longer recorded. In the event that a smart-curtailment fatality reduction mechanism is approved, modifications to cut-in speeds in response to SMEs will be re-evaluated and proposed prior to implementation.

Table 2: Cut-in speed increment schedule to be implemented following SME.

Cut-in Speed
Manufacturer's Cut-In
5.0 m/s
6.0 m/s
6.9 m/s
7.5 m/s
8.0 m/s
8.5 m/s
9.0 m/s

Based on these methods, a single SME recorded on May 10 would trigger an increase in cut-in speed for the two weeks following the SME of the same year (i.e., 7.5 m/s from May 10 – May 14; 5.0 m/s from May 15 – May 24); the following years would also include curtailment for the two-weeks preceding the SME date. Should a second SME occur within this period of increased curtailment, cut-in speeds would again be increased incrementally based on the period-specific standard. SMEs should be separated by a period greater than or equal to the seasonal carcass persistence to constitute a unique event and to reasonably assume the new event occurred during the increased curtailment requirements.

Additional curtailment considerations and protocol include the following:

- We further interpret the SME mortality threshold to be based on mortalities that occur within a 24-hour period. Mortalities that cannot confidently be attributed to the same period (within reason) will not constitute an SME (e.g., 20 Facility-wide fatalities discovered in one day but 3 are clearly >7 days old while the remaining 17 are <3 days will not qualify).
- Increased curtailment triggered by a SME will be implemented within 24 hours of detection.
- If the SME is triggered based on Project-wide mortalities (i.e., >20 birds or >20 bats) the increased curtailment strategy shall be implemented Project-wide; however, if the SME is triggered based on a turbine-specific SME, the increased curtailment strategy shall be implemented only at the specific turbine(s).
- Should an SME be detected, the ODNR and USFWS will be notified with 24 hours.

Post-Construction Monitoring

While recognizing that PCMM will play an integral part in assessing impacts the Project may have on birds and bats, the Bird and Bat Mitigation Plan is not intended to incorporate a comprehensive PCMM plan. However, should one or more SME’s be recorded during the second year of PCMM, Grover Hill is committed to an extension of PCMM beyond the anticipated two years of study. It is understood that the intentions of the extended monitoring period are to assess the potential effectiveness of the increased curtailment against SME’s. As such, the extended PCMM will include the following protocol and considerations:

- The extended PCMM study will be limited to the previous year’s newly recorded SME window(s). If limited to a single SME, this would be a 4-week PCMM study.
- The scope of extended PCMM will include only the extent of turbines that caused the SME trigger (i.e., single turbine SME’s will only require surveys at the offending turbine).

- A comprehensive study design for any extended PCMM surveys will be incorporated into the Certificate Condition 23's PCMM.
- If results of the extended PCMM study indicate current curtailment rates are not successful in preventing SME's, yearly monitoring using the extended PCMM protocol will continue, coupled with increased curtailment based on the Table 2 schedule, until no SME's are observed. Alternatively, consultation will occur with the USFWS and/or ODNR to determine agreed upon "smart" curtailment strategies to employ.

4.0 References

- Grover Hill Wind, LLC. 2021. Application to the Ohio Power Siting Board for the Certificate of Environmental Compatibility & Public Need for the Grover Hill Wind Farm. Case No. 20-417-EL-BGN.
- Grover Hill Wind, LLC and the Ohio Power Siting Board. 2022. Joint Stipulation and Recommendation. Case No. 20-417-EL-BGN. Filed on 10/7/2022.
- The Ohio Power Siting Board. 2022. Opinion, Order, and Certificate adopting the Joint Stipulation and Recommendation. Case No. 20-417-El-BGN. Issued 12/15/22
- Ohio Department of Natural Resources. 2009. On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio. Available at: <https://dam.assets.ohio.gov/image/upload/ohiodnr.gov/documents/wildlife/wildlife-management/wind%20%20windwildlifemonitoringprotocol.pdf>
- Ohio Department of Natural Resources. 2011. Amendment to the On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio. Available at: <https://dam.assets.ohio.gov/image/upload/ohiodnr.gov/documents/wildlife/wildlife-management/wind%20%20postconstructionmonitoringprotocol.pdf>
- U.S. Geological Survey. 2016. NLCD 2016 Land Cover. Accessed at: <https://datagateway.nrcs.usda.gov/>.

**This foregoing document was electronically filed with the Public Utilities
Commission of Ohio Docketing Information System on**

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in

Case No(s). 20-0417-EL-BGN, 23-0459-EL-BGA

Summary: Notice - Compliance with Condition 24 – Bird and Bat Mitigation Plan
electronically filed by Christine M.T. Pirik on behalf of Grover Hill Wind, LLC.