

BEFORE
THE OHIO POWER SITING BOARD

In the Matter of the Application of :
Icebreaker Windpower, Inc. for a :
certificate to construct a wind powered : Case No. 16-1871-EL-BGN
electric generation facility in Cuyahoga :
County, Ohio. :

PREFILED TESTIMONY
OF
ERIN HAZELTON
WILDLIFE ADMINISTRATOR
OHIO DIVISION OF NATURAL RESOURCES

STAFF EX. _____

Dated: September 18, 2018

- 1 1. Q. Please state name and business address.
- 2 A. My name is Erin Hazelton. My business address is 2045 Morse Road,
- 3 Columbus, Ohio.
- 4
- 5 2. Q. By whom are you employed?
- 6 A. I am employed by the Ohio Department of Natural Resources (ODNR),
- 7 Division of Wildlife.
- 8
- 9 3. Q. What is your present position and duties with respect to the Ohio Power
- 10 Siting Board (OPSB)?
- 11 A. I am a Wildlife Administrator and specifically work as the ODNR Wind
- 12 Energy Administrator. ODNR is a voting member of the OPSB, and its
- 13 employees may be called to the OPSB's assistance. As the ODNR Wind
- 14 Energy Administrator, I serve as a resource analyst to the OPSB Staff and
- 15 the ODNR Director for wildlife-related issues on wind energy facility
- 16 applications. I provide recommendations to wind energy companies
- 17 regarding the type and level of monitoring that should occur, using
- 18 biologically appropriate methods and ODNR's standardized protocols for
- 19 pre- and post-construction monitoring. I also review wind energy facility
- 20 applications and pre- and post-construction reports and provide
- 21 recommendations with respect to the potential impacts to wildlife.
- 22

1 4. Q. Would you briefly state your educational background and work history?

2 A. I have a Bachelor of Arts in biology from Wittenberg University,

3 Springfield, Ohio, and a Master of Science from Miami University, Oxford,

4 Ohio. After graduating with my master's degree, I was a researcher for

5 ODNR's Division of Natural Areas and Preserves for four years. I then

6 transferred to the Ohio Development Services Agency where I worked for

7 the Office of Energy and Redevelopment as an environmental specialist and

8 supervisor for seven years. In 2017, I was hired into my current position

9 with the Division of Wildlife.

10

11 5. Q. What is the purpose of your testimony in this case?

12 A. I am testifying in support of the Staff Report of Investigation (Staff Report)

13 and proposed conditions placed on this project, in particular the sections on

14 wildlife and avian and bat species and Staff Report Conditions 15, 18, 19,

15 21, 22, 23, 24, 25, and 26, as well as the development of the Avian and Bat

16 Memorandum of Understanding (MOU) and the objectives and protocols

17 described therein.

18

19 6. Q. Have you reviewed the Joint Stipulation and Recommendation

20 ("Stipulation") that the Business Network for Offshore Wind, Inc.,

21 Indiana/Kentucky/Ohio Regional Council of Carpenters', Ohio

Environmental Council, Sierra Club, and Icebreaker (jointly referred to as “Signatory Parties”) filed on September 4, 2018 in the docket of this case?

A. Yes, in particular, those stipulations regarding wildlife.

7. Q. Can you please describe ODNR's standardized *On-Shore Bird and Bat Pre-and Post- Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio?*

A. These standardized protocols were first developed in 2009 and are used to assess the risks to wildlife at proposed terrestrial wind energy facilities during pre- and post-construction. Pre-construction surveys can include: bat acoustics; bat mist netting; breeding bird surveys; bird and raptor nest monitoring; raptor point counts; bird migration surveys; owl, marsh, and water bird surveys; and radar surveys. Post-construction surveys can include: mortality searches, bat acoustics, and breeding bird surveys. For post-construction, the surveys are used to document the species impacted, estimate bird and bat mortality, and help determine if there are potential issues with attraction and/or avoidance. Results from post-construction monitoring enable ODNR's Division of Wildlife to make recommendations on additional minimization or mitigation measures, if needed.

Many of these standardized, terrestrial protocols are not possible to conduct or are untested in an aquatic environment like Lake Erie. However, the objectives of these surveys are still relevant for informing risk to birds and

1 bats in aquatic environments. Thus, modified protocols to collect such data
2 are adopted in the Avian and Bat MOU with Icebreaker Windpower, Inc.
3 (Icebreaker or Applicant).

4

5 8. Q. Briefly describe the Avian and Bat MOU that was agreed to by ODNR and
6 Icebreaker, including its purpose.

7 A. The purpose of the Avian and Bat MOU is to formalize objectives of the
8 monitoring protocols, to identify the information the Applicant will collect,
9 and to document specific monitoring protocols that would be completed to
10 collect that information, as mutually agreed upon by ODNR and Icebreaker.
11 Pre-construction surveys include one year each of acoustic surveys for bats,
12 daytime aerial surveys for water birds, and nighttime radar surveys for birds
13 and bats in and near the project area. These surveys will be used to
14 establish a baseline of bird and bat activity at the project site and elucidate
15 patterns of activity that may increase risk. After the project is constructed,
16 these same surveys will be performed again for two years. Additionally,
17 the MOU states that Icebreaker will be responsible for implementing a
18 collision detection and monitoring protocol. Together and with the pre-
19 construction surveys, the results from these protocols will determine and
20 quantify the actual impact the project is having on wildlife (i.e., collision,
21 avoidance, and attraction) and whether additional operational modification
22 is needed to ensure the impact to wildlife is minimal. Several of the

1 protocols currently described in the MOU will warrant further development
2 (i.e. radar, collision detection) and can be modified as new information or
3 technology becomes available.

4

5 9. Q. What criteria must the Board consider before it may grant a power siting
6 certificate?

7 A. In order to issue a certificate, the Board must find and determine the
8 applicable criteria enumerated in Ohio Revised Code (R.C.) 4906.10(A).
9 The Staff Report provides OPSB Staff's findings and recommendations on
10 these criteria. For example, R.C. 4906.10(A)(2) and (3) state that the Board
11 must find and determine "the nature of the probable environmental impact"
12 and "that the facility represents the minimum adverse environmental
13 impact, considering the state of available technology and the nature and
14 economics of the various alternatives, and other pertinent considerations,"
15 respectively.

16

17 10. Q. Briefly describe the Staff Report's findings with regards to R.C.
18 4906.10(A)(2).

19 A. Regarding R.C. 4906.10(A)(2), based on mortality results from terrestrial
20 wind energy projects in Ohio and preliminary wildlife surveys conducted
21 by the Applicant and ODNR, the nature of the probable environmental
22 impact regarding wildlife will be collision, avoidance, and attraction,

1 primarily affecting birds and bats. Since Applicant has not completed the
2 pre-construction or post-construction monitoring, the precise impacts
3 cannot be quantified at this time.

4

5 11. Q. Briefly describe the Staff Report's findings and recommendations with
6 regards to R.C. 4906.10(A)(3).

7 A. Regarding R.C. 4906.10(A)(3), the recommended Conditions 15-26
8 in the Staff Report ensure the facility represents minimum adverse
9 environmental impacts regarding wildlife. These conditions, as a
10 package, provide a step-wise approach and framework for review
11 and approval in order for the Applicant to construct and fully
12 operate the facility. Additionally, the Applicant will monitor the
13 facility for collision, avoidance, and attraction. If OPSB Staff and
14 the ODNR, in consultation with the USFWS, determine the project
15 results in significant adverse impact to wild animals, the Applicant
16 will be given an opportunity to develop and submit a mitigation
17 plan or adaptive management strategy to OPSB Staff and ODNR
18 for review. If significant adverse impacts persist, the recommended
19 conditions allow for ODNR in coordination with OPSB Staff and
20 USFWS (where appropriate) to mandate adaptive management to

1 ensure the facility continues to represent the minimum adverse
2 environmental impact.

3

4 12. Q. How will Staff Report Condition 15 help to ensure that the project will
5 represent the minimum adverse environmental impact?

6 A. Condition 15 is important because it establishes the MOU as an integral
7 document to formalizing bird and bat monitoring objectives and protocols
8 in an aquatic environment. At this time, ODNR has developed standard
9 protocols for terrestrial wind energy facilities only. ODNR will continue to
10 work with the Applicant, have oversight over the content of the MOU, and
11 determine when the objectives have been met.

12

13 13. Q. How will Staff Report Condition 18 help to ensure that the project will
14 represent the minimum adverse environmental impact?

15 A. Condition 18 requires the Applicant to submit, prior to commencement of
16 construction, a post-construction monitoring and avian and bat impact
17 mitigation plan to ODNR and OPSB Staff. This plan will describe post-
18 construction monitoring methods and how the project would be effective in
19 avoiding significant impacts to wildlife. The Applicant's proposal must be
20 acceptable to ODNR and OPSB Staff for construction to commence and
21 will include details on specific post-construction monitoring efforts, thus
22 ensuring the constructed project can be monitored and represents minimum

1 adverse environmental impact. In addition, the mitigation plan will take
2 into account the most-recent survey results and, if appropriate, provide for
3 additional mitigation measures to reduce the impact to avian and bat
4 species.

5 The Applicant has not identified a proven collision monitoring technology,
6 and one may not be available until an undetermined point in the future.

7 Therefore, this monitoring plan may be approved, thus authorizing
8 construction, with or without an approved collision monitoring protocol.

9 Staff Report Condition 19, discussed below, allows for this flexibility while
10 ensuring the project represents the minimum adverse environmental impact.

11

12 14. Q. How will Staff Report Condition 19 help to ensure that the project will
13 represent the minimum adverse environmental impact?

14 A. Condition 19 mandates turbines be fully feathered from dusk to dawn
15 March 1-January 1, which represents the time waterfowl, passerines and
16 bats are present due to migration and summer residency. Radio telemetry
17 tracking and radar surveys suggest hundreds of thousands to millions of
18 birds and bats migrate over Lake Erie making it an important global
19 migration pathway. Based on mortality results from terrestrial wind energy
20 projects in Ohio and various wildlife surveys conducted by ODNR, the
21 Division of Wildlife anticipates the most significant risk to birds and bats is
22 at nighttime during spring and fall migrations, as well as during their

1 summer residency. The Applicant has documented birds and bats at the
2 project site 8-10 miles offshore during bat acoustic surveys and aerial
3 waterfowl surveys. Robust pre-construction and post-construction
4 protocols are warranted to quantify bird and bat activity at the project site
5 to inform the mitigation plan. Condition 19 ensures collision risk will be
6 minimal until the Applicant has demonstrated the protocols included in the
7 avian and bat collision monitoring plan are sufficient and acceptable to
8 ODNR and OPSB Staff.

9 On land, wind facilities monitor bird and bat mortality by conducting
10 standardized carcass searches in established plots under the turbines. It is
11 unlikely many carcasses can be recovered from Lake Erie and even less
12 likely, given the state of technology at this time, recovered carcasses could
13 be definitively attributed to operation of the turbines. At this time,
14 Icebreaker has not submitted an acceptable collision monitoring plan
15 demonstrating the technology and methodology that will be used to
16 document collisions between birds and bats and wind turbines will meet the
17 objectives in the MOU.

18 The Applicant may demonstrate that the plan and technology is sufficient
19 either prior to construction or during operation through lab and field testing.
20 Compliance with this condition will be determined by the ODNR in
21 consultation with OPSB Staff, at which time the aforementioned feathering
22 restriction associated with this condition will not be required. If the

1 collision monitoring technology is to be proven post-construction, ODNR
2 may approve modifications to the curtailment regime for testing purposes.

3 15. Q. Would Condition 19, as presented in the Stipulation in conjunction with the
4 testimony presented by the Signatory Parties, benefit the public interest and
5 represent the minimum adverse environmental impact?

6 A. Stipulation Condition 19 is not in the public interest regarding protection of
7 wildlife and does not satisfy R.C. 4906.10(A)(3), which requires the project
8 to represent the minimum adverse environmental impact. At this time, the
9 Applicant has not identified a suitable technology but has agreed to further
10 explore options that can meet the objectives set out in the MOU. The
11 Stipulation envisions approval of the collision monitoring plan under R.C.
12 4906.10(A)(3) being predicated on the “state of available technology” at the
13 time of submission, not on whether this technology can accomplish the
14 objectives set out in the MOU. Additionally, although the Applicant
15 volunteers a different curtailment regime if the proposed plan is not
16 sufficient, this modified regime is limited to non-specific “peak spring and
17 fall migration periods when cloud ceilings are low.” Thus, the Stipulation’s
18 proposed curtailment regime is not protective of wild animals during 1) full
19 migratory seasons, 2) summer residency periods, or 3) the vast majority of
20 the nocturnal hours when birds and bats typically migrate and is not in the
21 public interest nor does it ensure the project represents the minimum
22 adverse environmental impact.

1 the project site and to characterize avoidance/attraction effects of the
2 turbines. Icebreaker has chosen to pursue vessel-based radar to accomplish
3 the MOU objectives and has solicited radar vendors. Protocols have not
4 been agreed to nor memorialized in the MOU, to date. Thus, Condition 22
5 outlines the basic requirements of a successful radar study protocol to
6 ensure the resulting data will be reliable and will accurately document bird
7 and bat activity at the project site during the identified survey periods.

8

9 18. Q. Would Condition 22, as presented in the Stipulation in conjunction with the
10 testimony presented by the Signatory Parties, benefit the public interest and
11 represent the minimum adverse environmental impact?

12 A. Stipulation Condition 22 is not in the public interest regarding protection of
13 wildlife and does not satisfy R.C. 4906.10(A)(3), which requires the project
14 to ensure the minimum adverse environmental impact. Quality data is
15 important so that post-construction comparisons can be made and an
16 effective avian and bat mitigation plan can be written, ensuring minimum
17 adverse environmental impact to avian and bat species. A radar operation
18 standard of 80% was recommended by OPSB Staff based on guidance from
19 radar experts at USFWS and US Geological Survey and is consistent with
20 standards for other surveys in the MOU. The 80% standard contains a
21 built-in 20% buffer to provide the Applicant flexibility to the extent that
22 wave clutter, precipitation, technical issues, or other items result non-viable

1 data. In Stipulation Condition 22(c) the Applicant proposes weakening this
2 standard by allowing for additional contingencies due to “heavy
3 precipitation or high sea events.” In Stipulation Condition 22(g), the
4 Applicant proposes a second year of radar monitoring not be required if the
5 Applicant can demonstrate additional data would not inform the objectives
6 of the MOU. Due to the importance of Lake Erie as a global migration
7 pathway, the many uncertainties associated with this project, and annual
8 fluctuations in migration, OPSB Staff maintains a minimum of two years of
9 post-construction radar monitoring be required to document wildlife’s use
10 of this site over Lake Erie.

- 11
- 12 19. Q. How will Staff Report Condition 23 ensure that the project will represent
13 the minimum adverse environmental impact?
- 14 A. Under Staff Report Condition 23, construction of the facility will not be
15 authorized until the Applicant meets the pre-construction radar study
16 requirements specified in Condition 22, to be performed for one spring and
17 one fall migration period. Migration seasons represent increased collision
18 risk; therefore, it is important to understand bird and bat use of the project
19 site during these time periods. Pre-construction radar data is important so
20 that post-construction comparisons can be made and an effective avian and
21 bat mitigation plan can be written, ensuring minimum adverse
22 environmental risk to avian and bat species.

- 1 20. Q. Does Staff have any revisions to Staff Report Condition 24?
- 2 A. Yes, Staff proposes the following revision to Staff Report Condition 24:
- 3 If OPSB Staff and the ODNR, in consultation with the USFWS, determine
4 the project results in significant adverse impact to wild animals, ODNR and
5 OPSB Staff will notify the Applicant. Within 30 days of receiving
6 notification of the significant adverse impact, Applicant will develop and
7 submit a mitigation plan or adaptive management strategy to OPSB Staff
8 and the ODNR for review to confirm compliance with this condition.
9 Temporary adaptive management may be prescribed until the mutually
10 agreed upon plan is implemented. Applicant shall implement the plan
11 within 14 days after receiving approval. If the significant adverse impact
12 persists, Applicant shall be prescribed adaptive management.
- 13
- 14 21. Q. How will Staff Report Condition 24, as revised above, help to ensure that
15 the project will represent the minimum adverse environmental impact?
- 16 A. ODNR and OPSB Staff recognize that unanticipated adverse impact to
17 wildlife may occur post-construction via collisions, avoidance, or attraction
18 and that post-construction monitoring will provide information regarding
19 these impacts. Condition 24 allows for OPSB Staff and ODNR to prescribe
20 adaptive management to the Applicant in order to maintain minimum
21 adverse environmental impacts to wildlife, should an unacceptable event
22 occur during the life of the facility. Such an event would be a substantial
23 impact to wild animals, including mortality events or major behavioral
24 changes. While the definition of wild animals is broad and includes
25 mollusks, crustaceans, aquatic insects, fish, reptiles, amphibians, wild birds,
26 wild quadrupeds, and all other wild mammals, but does not include
27 domestic deer (R.C. 1531.01(X)), the primary focus at the project site will

1 be on birds, bats, and aquatic species. This is consistent with the
2 responsibilities delegated to the Division of Wildlife under state statute,
3 that all wild animals in this state are held in trust for the benefit of all the
4 people (R.C. 1531.02).

5 ODNR and OPSB Staff envision an incremental system to be used for the
6 mitigation/adaptive management, with the selected mitigation being a
7 proportional response and only as restrictive as is necessary to alleviate the
8 significant adverse impact. Thus, it is very unlikely there will be a scenario
9 where a complete shut-down is necessary.

10

11 22. Q. Would Condition 24, as presented in the Stipulation in conjunction with the
12 testimony presented by the Signatory Parties, benefit the public interest and
13 represent the minimum adverse environmental impact?

14 A. Stipulation Condition 24 is not in the public interest regarding protection of
15 wildlife and does not satisfy the requirements of R.C. 4906.10(A)(3), which
16 requires the project to represent the minimum adverse environmental
17 impact. According to the Stipulation, a revised mitigation or adaptive
18 management strategy would be required if OPSB Staff, ODNR, and
19 USFWS demonstrate the facility was responsible for population level
20 impacts to wildlife. The data collected from this single site, even if
21 accurate, could never provide such a demonstration. Finally, the
22 Stipulation's language does not guarantee a successful and timely response

1 to mitigation action. Instead, it relies exclusively on the Applicant to
2 submit a proposal, removing the safeguard of OPSB Staff and ODNR
3 intervention should the agreed upon mitigation not be successful or
4 implemented in a timely manner.

5

6 23. Q. Is Stipulation Condition 35 filed by the Applicant and other parties in the
7 public interest?

8 A. No.

9 Many of the conditions in the Staff Report referenced by proposed
10 Stipulation Condition 35 (17, 18, 19, 20, 22, and 24) do not lend themselves
11 to “advisory input” from outside groups but instead are specific
12 benchmarks needed to be achieved by the Applicant.

13 Also, it is unclear what is meant by the term “advisory input.” If that term
14 is meant to give the Signatory Parties the same rights to public participation
15 as other citizens in Ohio, it is not necessary to be included as a condition in
16 the certificate, as that intention could be misconstrued in the future,
17 possibly resulting in unnecessary litigation. If the term is intended to grant
18 additional rights to the Signatory Parties, it is not in the public interest, as it
19 prejudices non-signatory parties by giving them less rights to public
20 participation, as well as by creating an unlawful situation where an outside
21 group has an “advisory” role over state agencies.

22

1 24. Q. Does this conclude your testimony?

2 A. Yes. However, I reserve the right to submit supplemental testimony as new
3 information subsequently becomes available or in response to positions
4 taken by other parties.

PROOF OF SERVICE

I hereby certify that a true copy of the foregoing Prefiled Testimony of Erin Hazelton was served via e-mail, upon the following parties of record, this 18th day of September, 2018.

/s/John H. Jones

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Summary: Testimony of Erin Hazelton electronically filed by Ms. Tonetta Scott on behalf of PUC