BEFORE THE OHIO POWER SITING BOARD

In the Matter of the Application of Icebreaker)	
Windpower, Inc., for a Certification to)	
Construct a Wind-Powered Electric)	Case No. 16-1871-EL-BGN
Generation Facility in Cuyahoga County,)	
Ohio)	

BRATENAHL RESIDENTS' POST-HEARING BRIEF

I. INTRODUCTION

The authority of the Board to grant a certificate of environmental compatibility and public need (a "Certificate") to Applicant Icebreaker Windpower, Inc. ("Icebreaker") for its proposed Lake Erie wind turbine project (the "Project") is controlled by R.C. 4906.10. R.C. 4906.10(A)(2) & (3) specifically require that <u>before</u> the Board may grant a Certificate to Icebreaker, it must make findings and determinations (1) as to the nature of the probable environmental impact of the Project; and (2) that the Project represents the minimum adverse environmental impact:

(A) . . . The Board shall not grant a certificate . . . of a major utility facility . . . unless it finds and determines all of the following:

* * *

- (2) The nature of the probable environmental impact;
- (3) That the facility represents the minimum adverse environmental impact, considering the state of available technology, and the nature and economics of the various alternatives and other pertinent considerations[.] (Emphasis added.)

However, the record in this case irrefutably establishes that Icebreaker has failed to submit to the Board sufficient data and information at this juncture for the Board to make <u>any</u> findings or determinations as to <u>either</u> statutory requirement. To the contrary, <u>as the undisputed</u> testimony of Staff's own Wind Energy Administrator, Erin Hazelton, corroborates, Icebreaker's

Application and proffered May 15, 2019 Revised Joint Stipulation and Recommendation (the "Revised Stipulation") suffer from the following fatal defects:

- (A) Over two and a half years after Icebreaker filed its Application in this case, it still has absolutely no data or information regarding the number or density of birds and bats that migrate through the rotor swept zone ("RSZ") of the proposed Project;
- (B) Icebreaker <u>still</u> has not identified the technology or methodology by which it will attempt to determine the number or density of birds and bats that migrate through the Project area;
- (C) Icebreaker <u>still</u> has not identified the technology or methodology by which it will attempt to determine the number of birds and bats that will be killed by its turbines;
- (D) ODNR and Staff do not possess the expertise to determine whether any yet-to-beidentified technologies or methodologies proposed by Icebreaker in the future will accurately identify either the volume/density of birds or bats migrating through the Project RSZ or the number of birds and bats killed by its turbines; and
- (E) The only independent avian radar expert who has testified in this case, former U.S. Fish and Wildlife Service scientist Dr. Jeffry Gosse, testifies that Icebreaker has <u>not</u> presented any scientifically valid data or identified any validated methodologies that would enable the Board to make findings and determinations as to the nature of the probable environmental impact of the Project or that the Project represents the minimum adverse environmental impact.
- II. SUMMARY OF FATAL DEFECTS IN ICEBREAKER'S APPLICATION AND THE REVISED STIPULATION PREVENTING ANY FINDINGS OR DETERMINATIONS BY THE BOARD THAT THE PROJECT "REPRESENTS THE MINIMUM ADVERSE ENVIRONMENTAL IMPACT"
 - A. Icebreaker has provided absolutely no information regarding the number or density of birds and bats that migrate through the RSZ of the Project.

ODNR and FWS have been asking Icebreaker <u>since 2008</u> to place an avian radar unit at the Project area to attempt to determine the volume and density of birds migrating through the RSZ of the Project. *See* <u>Bratenahl Residents Exhibit 7</u> at 2 (ODNR and FWS February 28, 2017 Memorandum) ("Preferred is radar data from the project area. *Fish and Wildlife Service has been requesting this information since 2008.*") (emphasis added). Yet Icebreaker simply has

refused to conduct a radar study at the Project site. 10/2/19 Hazelton Test. at 1768 ("There has not been a radar system deployed at the project site that I am aware of."). Instead, Icebreaker and its hired experts attempt to foist upon the Board the preposterous notion that most birds and bats migrate around Lake Erie. Staff is not fooled.¹ It realizes that hundreds of thousands, if not millions, of birds and bats migrate over Lake Erie every year. 9/18/18 Hazelton Pre-Filed Test. at 8 ("Radio telemetry tracking and radar surveys suggest hundreds of thousands to millions of birds and bats migrate over Lake Erie, making it an important global migration pathway.").

Further, Icebreaker attempts to foist upon the Board the equally absurd notion that there is no correlation between the number/density of birds and bats that migrate through the RSZ of its turbines and the level of risk that the turbines will kill them. 9/27/18 Mabee Test. at 847-48.² Again, Staff is not fooled by this nonsense. It acknowledges that information regarding the number/density of birds flying through the RSZ of the Project informs an accurate assessment of the level of risk that the turbines will kill such birds and bats -- but Icebreaker has not even collected that required data (despite FWS and ODNR requests since 2008), much less provided it on the record in this case:

¹See Staff Ex. 1 (July 3, 2018 Staff Report of Investigation) at 24: "The Applicant's conclusion that impacts would be low was based, in part, on the assumption that migratory species would remain close to the shore and not cross over the lake. However, recent USFWS radar monitoring in Cleveland has shown large numbers of nocturnal migrants exhibiting flight patterns that suggest they are crossing the lake, which demonstrates the importance of a successful radar study."

²However, the C.V. of Icebreaker's avian radar witness, Todd J. Mabee, submitted in this proceeding to establish his expertise, directly refutes his own hearing testimony arguing that preconstruction avian radar studies identifying the volume/density of birds in a turbine project area are useless to assess the turbines' risk of mortality for those birds. To the contrary, as Mabee touts in his C.V., he has performed (and accepted payment for) numerous pre-construction avian radar studies for the very purpose of assessing collision risk: he "used radar and/or night-vision optics to document flight directions, flight altitudes, and passage rates of Marbled Murrelets, diurnal migratory birds, and nocturnally-migrating birds and bats to assess collision risk." 9/6/18 Mabee Pre-Filed Test., Attachment TJM1 at 2 (Applicant Ex. 32) (emphasis added). See also 9/27/18 Mabee Test. at .850-51.

- Q. [Atty. Stock] Is it the position of ODNR that one of the purposes of preconstruction radar is . . . to provide flight altitude of migrants at or near the --near and entirely within the rotor-swept zone at the project *to quantify collision risk?*
- A. [Hazelton] It is. The goal of that would be, again, to quantify the risk. We understand generally what the risk would be, but we are unable to quantify that at this time with the information that we have. . . . (Emphasis added).

10/2/18 Hazelton Test. at 1694. *See also* 11/29/16 Icebreaker Wind: Summary of Risks to Birds and Bats (West) ("West's Summary of Risks") (<u>Bratenahl Residents' Ex. 9</u>) at 6 ("For many birds, susceptibility [for collision fatality] appears to be most closely related to species overall abundance and *the amount of time a species spends flying within the rotor swept zone altitudes*.") (emphasis added).

Icebreaker has no idea as to the number/density of birds and bats migrating through the RSZ of the Project. It has no idea as to the risk that the turbines will present to kill those birds and bats. Thus, as Staff's Hazelton verifies under oath, Icebreaker has not shown, and the Board has no scientifically valid data or validated methodology by which to determine, the nature of the probable environmental impact of the Project on birds and bats. 9/18//18 Hazelton Pre-Filed Test. at 6 (Staff Ex. 3) ("Since Applicant has not completed the pre-construction or post-construction monitoring, *the precise impacts cannot be quantified at this time.*").

B. Icebreaker has not even identified the technology or methodology by which it will attempt to determine the number or density of birds and bats that migrate through the Project area.

Icebreaker does not contest the fact that it has not even identified technology or methodology that it will use to attempt to determine the number and density of birds and bats migrating through the RSZ of the Project.

Q. [Atty. Stock] Has Icebreaker submitted to ODNR for review a proposed avian radar technology or system as of today's date [August 20, 2019] to provide avian radar data for the rotor-swept zone of the project site?

A. [Hazelton] *No. I believe the Applicant is still reviewing that technology.* (Emphasis added).

8/20/19 Hazelton Test. at 1768.

But what <u>is</u> known is that Icebreaker proposes to place an avian radar unit on a <u>floating</u> <u>platform</u>—<u>despite the fact that both Staff and all experts not paid by Icebreaker agree that the use of a radar unit on a moving platform is a completely untested methodology (without any scientific validation) and is likely to introduce errors in the collection of data.</u>

- Q. [Atty. Stock] Okay. Three more lines down [July 3, 2018 Staff Report at 23]—two more lines down, "it still appears at this point that the movement of the barge may introduce to the radar data." As we sit here today, is that still ODNR's belief?
- A. [Hazelton] We're not aware of any radar system that's been deployed on a moving platform, so it's a concern. . . .

* * *

- Q. It [Staff Report at 24] then reads "At this time it is unclear if a moving platform would be able to meet these criteria [the Staff Report's requirements for the avian radar system]".
- A. I see that.
- Q. Is that still a true statement?
- A. Yes. I believe so. (Emphasis added).

8/20/19 Hazelton Test. at 1771, 1774.

The Board cannot make any findings or determinations that Icebreaker's use of a radar unit on a floating platform, as proposed, is a scientifically valid methodology or will produce any accurate data to establish the probable environmental impact of the Projects on birds and bats or that the Project represents the minimum adverse environmental impact.

C. Icebreaker has not yet identified the technology or methodology by which it will attempt to determine the number of birds and bats that will be killed by its turbines.

Another material fact not disputed in this case is that Icebreaker has not even identified any scientifically-validated technologies or methodologies by which it might attempt to determine the number of birds or bats that will be killed by its turbines—much less providing any scientific data as to what that number will be:

Q. [Atty. Stock] Okay. Now, the next paragraph [7/3/18 Staff Report at 24] "There are currently no proven post-construction collision technologies or methodologies available for the offshore wind setting." Do you see that?

A. [Hazelton] I do.

Q. Is that still true?

A. As far as I know. (Emphasis added).

8/20/19 Hazelton Test. at 1775.

Hazelton further testified that the conditions set forth in the then-proposed September 4, 2018 Joint Stipulation and Recommendation (the "Stipulation") (Joint Ex. 1) (which the Board Staff did not join) were "not in the public interest" and did not "ensure [that] the project represents the minimum adverse environmental impact" because, "[a]t this time, the Applicant has not identified a suitable technology" to monitor bird and bat activity at the project site and to detect bird and bat collisions with the wind turbines. 9/18/18 Hazelton Pre-Filed Test. at 10 (emphasis added) (concluding that "Stipulation Condition 19 is not in the public interest regarding protection of wildlife and does not satisfy R.C. 4906.10(A)(3), which requires the project to represent the minimum adverse environmental impact."). See also *Id.* at 12 (concluding that "Stipulation Condition 22 is not in the public interest regarding protection of

³Hazelton noted that "[t]he Applicant has not identified a proven collision monitoring technology, and one may not be available until an undetermined point in the future." 9/18/18 Hazelton Pre-Filed Test. at 8 (Staff Ex. 3).

wildlife and does not satisfy R.C. 4906.10(A)(3), which requires the project to ensure the minimum adverse environmental impact.").⁴

There is no dispute that Applicant's turbines will kill birds and bats 9/6/18 Gordon Pre-Filed Test. (Applicant Ex. 30) at 4, ¶19, but the extent of that killing is completely unknown at this point. This is just another fatal defect in Icebreaker's Application and the Revised Stipulation that prevents the Board from determining the probable environmental impact of the Project on birds or bats, or that it represents the minimum adverse environmental impact.

D. ODNR and Staff do not possess the expertise to determine (without Board oversight or review in a public hearing) whether any yet-to-be-identified technologies or methodologies proposed by Icebreaker in the future will accurately identify either the volume/density of birds and bats migrating through the Project RSZ, or the number of birds and bats that will be killed by its turbines—and thus ensure whether the Project "represents the minimum adverse environmental impact."

Staff's July 3, 2018 Staff Report recommends that the Board <u>not</u> issue a Certificate to Icebreaker unless any such Certificate include the conditions set forth in the Report—the Report's conditions were necessary to ensure that the Project represents the minimum adverse environmental impact, as required by R.C. 4906.10(A)(3). Staff Wind Energy Administrator Hazelton reiterated that Staff position—that the Staff Report conditions are necessary to ensure that the Project represents the minimum adverse environmental impact—under oath in both her

⁴Hazelton further testified that "[p]er the [memorandum of understanding between ODNR and Icebreaker], the objectives of the pre- and post-construction radar study are to characterize the distribution and density of flying birds and bats at the project site and to characterize avoidance/attraction effects of the turbines. Icebreaker has chosen to pursue vessel-based radar to accomplish the MOU objectives and has solicited radar vendors. *Protocols have not been agreed to nor memorialized in the MOU, to date.*" 9/18/18 Hazelton Pre-Filed Test. at 8 (Staff Ex. 3) (emphasis added).

September 18, 2018 pre-filed testimony⁵ and her testimony at the fall 2018 adjudicatory hearing.⁶ Perhaps the most critical condition that Staff required as necessary to ensure the Project's minimum adverse environmental impact required that Icebreaker feather its turbines from dawn to dusk from March 1 through January 1 each year (the "Feathering Condition") until Icebreaker has proved that its as-yet-unidentified avian radar and collision technologies will produce scientifically valid information. Ms. Hazelton's 9/18/18 Pre-Filed Testimony (Staff Ex. 3) (prepared with deliberation and reviewed by legal counsel) emphasized why that condition (nighttime feathering from March 1 to January 1) is critical to ensuring that the Project represents the minimum adverse environmental impact, as required by R.C. 4906.10(A)(3):

Q. [Staff Counsel Jones] How will Staff Report Condition 19 help to ensure that the project will represent the minimum adverse environmental impact?

A. [Hazelton] Condition 19 mandates turbines be fully feathered from dusk to dawn March 1-January 1, which represents the time waterfowl, passerines and bats are present due to migration and summer residency. Radio telemetry tracking and radar surveys suggest hundreds of thousands to millions of birds and bats migrate over Lake Erie, making it an important global migratory pathway. Based on mortality results from terrestrial wind energy projects in Ohio and various wildlife surveys conducted by ODNR, the Division of Wildlife anticipates the most significant risk to birds and bats is nighttime during spring and fall migrations as well as during their summer residences. Robust preconstruction and post-construction protocols are warranted to quantify bird and bat activity at the project site to inform the mitigation plan. Condition 19 assures collision risk will be minimal until the Applicant has demonstrated the protocols included in the avian and bat collision monitoring plan are sufficient and acceptable to ODNR.

⁵9/18/18 Hazelton Pre-Filed Test. at 6 (Staff Ex. 3) ("Regarding R.C. 4906.10(A)(3), the recommended Conditions 15-26 ensure that facility represents minimum adverse environmental impact regarding wildlife.") (emphasis added).

⁶10/2/19 Hazelton Test. at 1643-44 (". . . It [Staff Report Condition 19] just says if the—if the project is operational without an approved collision monitoring technology, then this [nighttime turbine feathering from March 1 to January 1] *is what will be required to ensure minimum adverse environmental impacts*.") (emphasis added).

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

9/18/18 Hazelton Pre-Filed Test. at 8-9 (Staff Ex. 3) (emphasis added).

Now, Staff has abandoned that position it repeatedly took under oath. Instead, it supports Icebreaker's Revised Stipulation without the necessary Feathering Condition. It attempts to justify its abandonment of the Feathering Condition it urged to the Board, under oath, was essential to ensure the Project "represents the minimum adverse environmental impact," by now contending that it can still ensure the Project represents the under the Revised Stipulation because Staff will determine (without Board oversight or review in a public hearing), at some future date, whether Icebreaker's then-proposed avian radar and collision technologies and methods are scientifically-validated, and will produce scientifically-accurate data. There are two fundamental flaws with this position. First, Staff Wind Energy Administrator Hazelton acknowledges that neither ODNR nor Staff employees are experts in avian radar or collision technology, and thus, are not themselves competent to make these expert determinations:

Q. [Atty. Stock] All right. Now I want to clarify something. You don't claim to be an expert in avian radar, do you?

⁷See also West's Summary of Risks (<u>Bratenahl Residents' Ex. 9</u>) at 6: "In the offshore realm, the carcass-searching field study methodologies that have advanced our scientific understanding of bird and bad fatality rates at land based wind facilities are generally unavailable." (emphasis added).

^{8&}quot;... And DNR and Staff approval of the monitoring plan and the protocols therein are integral to ensuring minimum adverse impact to wildlife... We [Staff] agreed to support it [the Revised Stipulation] because we will have written approval [of the avian radar and collision protocols] prior to construction". 8/20/19 Hazelton Test. at 1759 (emphasis added).

- A. [Hazelton] No, I don't.
- Q. Okay, and you testified at the last hearing that you were not aware of anyone on staff at ODNR who is an expert in avian radar.
- A. That's correct. We don't have anyone on staff who is an expert in avian radar.
- Q. Okay. That's still the case?
- A. That's still the case.
- Q. All right. So clearly there is no one on staff at ONDR that possesses expertise in the mounting and operation of an avian radar unit from a floating platform; is that correct?
- A. That's correct.

8/20/19 Hazelton Test. at 1747-48 (emphasis added).

Because ODNR does not have any experts on Staff, ODNR itself does not know how to determine whether any avian radar or collision technology proposed by Icebreaker in the future is scientifically valid or will produce accurate data:

- Q. [Atty. Stock] How's ODNR going to determine whether or not the collision technology [proposed by Icebreaker in the future] is sufficient?
- A. [Hazelton] Well, we envision that the Applicant will—will test the technology and provide the data about its operation and what it is capable of doing to DNR to review prior to DNR's approval as it's laid out in Joint Exhibit 2, the Revised Stipulation.
- Q. Well, ODNR does not have on staff any experts regarding this collision technology which it must determine is sufficient, correct?
- A. No, ODNR doesn't have anyone on staff. . . .

* * *

Q. But if the data [Icebreaker's avian radar] is not there, that is—let's assume hypothetically [Icebreaker's avian radar data] shows 10 birds flying through but in actuality there were 15. How are you going to know—how is ODNR going to determine that five of them are missing?

A. So, again, I'm not—I am not a radar expert, and I don't understand how those analyses are normally done. . . .

8/20/19 Hazelton Test. at 1776, 1786 (emphasis added).

Similarly, despite the fact that Condition 20 of the Revised Stipulation purports to require Applicant to report to Staff if its turbines kill any listed endangered or threatened species, <u>ODNR</u> acknowledges that it has no idea as to how to determine the species of a bird or bat killed by the <u>turbines</u>:

- Q. [Atty. Stock] How will ODNR determine whether—that federally listed endangered or threatened species have been encountered by the turbines during operation?
- A. [Hazelton] So again, there could be different scenarios. Are you asking—would it be reported by the Applicant. And it could, let's say state endangered terns are nesting on the platforms, if the applicant is surveying, monitoring, and they notice the terns have built nests on the platforms, they could report that to ODNR. So that could be during operation.

It could be a carcass is recovered. . . . So it's difficult to say.

- Q. Let's assume an Indiana Bat [endangered species] flies through and is hit by a turbine and killed. You're telling me one of the means of detection would be finding the carcass?
- A. It's possible. . . .

* * *

- Q. Are you aware of any turbines in water for which scientifically valid carcass studies have been done with respect to bats?
- A. No. This project is the first of its kind. I'm not aware of any surveys that have been done regarding bat carcasses over water.
- Q. Okay. And you would admit to your knowledge avian radar will not pick up species of a target, right?
- A. *No.* Right now, that's under development but it's not a proven technology. 8/20/19 Hazelton Test. at 1791-92 (emphasis added).

When confronted with ODNR's and Staff's lack of the expertise necessary to make the statutorily-required "minimum adverse environmental impact" determination that it seeks to assume for itself (without Board oversight or review in a public hearing), Ms. Hazelton replies that ODNR/Staff will consult with third-party experts who do possess the requisite expertise to make an informed decision on these technical issues. But Ms. Hazelton acknowledges in the same breadth that the Revised Stipulation does not require ODNR/Staff to have an appropriate third-party expert provide its approval of Icebreaker's proposed technologies and methodologies.

Q. [Atty. Stock] Alright. There's no requirement that an independent expert with respect to the knowledge -- technology be retained by ODNR before it gives its sign-off, right?

A. [Hazelton] No. That is not part of the [Revised] Stipulation. 8/20/19 Hazelton Test. at 1779.

The second fundamental flaw is that the Revised Stipulation's proposed process—for Staff, without Board oversight and review in a public hearing, to make the "minimum adverse environmental impact" determination after the Board's issuance of a Certificate—subverts the requirement of R.C. 4906.10 that the Board make the determination as to whether the identified technologies/methodologies ensure minimum adverse impacts, and that the Board's determination be made before it issues a Certificate. The proposed after-the-fact, "behind closed doors" determination by Staff also would violate the requirements of R.C. Chapter 4906 that the determination be the subject of an adversarial process in a public Board hearing (the adjudicatory hearing) at which Project opponents (such as the Bratenahl Residents) may present (expert) testimony and evidence to controvert any proposed Staff approval of Icebreaker's proposed technologies/methodologies as scientifically-valid. See R.C. 4903.02-.09 (made applicable through R.C. 4906.12).

E. The only independent avian radar expert who has testified in this case, former FWS scientist Dr. Jeffrey Gosse, testifies that Icebreaker has <u>not</u> presented any scientifically valid data or identified any validated methodologies for the Board to make findings and determinations as to the nature of the probable environmental impact of the Project or that the Project represents the minimum adverse environmental impact.

No independent expert has testified in this case that Icebreaker's Application, the case record, or the Revised Stipulation set forth scientifically valid data, or identify scientifically-validated technologies or methodologies, sufficient for the Board to make the statutorily-mandated findings and determinations: (1) as to the probable environmental impact of the Project on birds and bats; or (2) that the Project represents the minimum adverse environmental impact to birds and bats. However, in stark contrast, former FWS expert Dr. Jeffery Gosse (retired from FWS in March 2018), an avian radar expert relied upon by Staff to assess this very Project, unequivocally testifies, without challenge by cross-examination by Applicant or Staff, that the Application, Revised Stipulation, and record in this case do not enable the Board to determine the probable environmental impact of the Project and preclude the Board from determining that the Project represents the minimum adverse environmental impact to birds and bats:

Q. [Atty. Stock] What are your primary findings, conclusions, and opinions in this case?

A. [Dr. Gosse] My professional opinion, to a reasonable degree of scientific certainty, is that neither the Current Record nor the Pre-Filed Testimony sets forth scientifically valid data or identifies validated methodologies sufficient for the Board to make finding and determinations: (1) as to the nature of the probable environmental impact of the Project on birds and bats as required by R.C. 4906.10(A)(2); or (2) that the Project represents the minimum adverse environmental impact to birds and bats as required by R.C. 4906.10(A)(3).

8/13/19 Gosse Pre-Filed Test. (Bratenahl Residents' Ex. 24) at 4.

As set forth in more detail below, Staff essentially testified in October 2018 that it was unable to assess the Project's probable environmental impact or to determine that the Project

represents the minimum adverse environmental impact because of the lack of information provided by Icebreaker. Since then, Icebreaker has not submitted to Staff or the Board any Project site pre-construction avian radar data or identified any validated technology by which it will attempt to determine whether its turbines will kill birds or bats. Staff's original conclusions are no less correct now than they were last fall. Thus, the Board must deny Icebreaker's Application for a Certificate of Environmental Compatibility & Public Need.

III. PROCEDURAL BACKGROUND

On February 1, 2017, Icebreaker filed with the Board its Application to construct the Project, a 6-turbine wind-powered electric generation facility located on approximately 4.2 acres of submerged, leased state of Ohio land in Lake Eric, 8-10 miles off the shore of Cleveland, in Cuyahoga County. On May 23, 2018, the Board issued an Entry permitting the intervention of, *inter alia*, Susan Dempsey and Robert M. Maloney ("Bratenahl Residents"), as well as the Business Network for Offshore Wind, Inc. ("BNOW"), the Sierra Club, the Ohio Environmental Council ("OEC"), and the Indiana/Kentucky/Ohio Regional Council of Carpenters ("Carpenters"). On September 4, 2018, pursuant to Ohio Adm. Code 4906-2-24(A), Icebreaker, BNOW, the Sierra Club, OEC, and the Carpenters filed their Stipulation which purported to resolve most of the "issues presented" in the case. The Bratenahl Residents and Board Staff did not agree to the Stipulation.

An adjudicatory hearing was conducted from September 24 through October 2, 2018. During the hearing, Staff witnesses testified that, in their opinion, the Project as set forth in the proposed Stipulation did <u>not</u> satisfy the requirements for issuance of a certificate, because, *inter alia*, Icebreaker was unable to demonstrate "[t]he nature of the probable environmental impact" as required by R.C. 4906.10(A)(2), and the Project did not "represent[] the minimum adverse

environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations," as required by R.C. 4906.10(A)(3), particularly as those statutory factors pertained to the Projects potential impact on birds and bats. See 9/18/18 Hazelton Pre-Filed Test. (Staff. Ex. 3) at 10, 12, 15; 9/18/18 Siegfried Pre-Filed Test. (Staff Ex. 4) at 4-5. Following the hearing, the ALJ set a post-hearing briefing schedule, but Icebreaker sought, and received, six extensions of the procedural schedule in this case to engage in discussions with Board Staff to attempt to resolve Staff's opposition to Icebreaker's Application. All parties except the Bratenahl Residents eventually reached an agreement, and a Revised Stipulation was filed with the Board on May 15, 2019. See Joint Ex. 2.

The Board thereafter reopened the record in the case, and scheduled a prehearing conference for June 5, 2019. *In re Icebreaker Windpower, Inc.*, No. 16-1871-EL-BGN, Entry at 3, ¶12 (May 22, 2019). Following the prehearing conference, the Administrative Law Judge issued another Entry establishing a procedural schedule and setting an evidentiary hearing for August 20, 2019. *In re Icebreaker Windpower, Inc.*, No. 16-1871-EL-BGN, Entry at 3, ¶10(d) (June 17, 2019).

The additional adjudicatory hearing was conducted on August 20, 2019. During that hearing, Board Staff witnesses testified in support of the Revised Stipulation despite there being no material differences between the Stipulation and the Revised Stipulation as they pertained the Project's potential (but unknown) impact on birds and bats. The Bratenahl Residents submit this Post-Hearing Brief urging the Board to reject the Revised Stipulation and to deny Icebreaker's Application.

IV. ARGUMENT

A. Standard for Issuance of a Certificate

The board has exclusive authority to issue certificates of environmental compatibility and public need for the construction, operation, and maintenance of "major utility facilities" such as the proposed wind farm at issue here. Under R.C. 4906.10(A), the board shall not issue a certificate unless it finds that the proposed application meets eight substantive criteria.

In re Application of Champaign Wind, L.L.C., 146 Ohio St.3d 489, 491, 2016-Ohio-1513 at ¶8 (citations omitted). "In granting a certificate for the construction, operation, and maintenance of a major utility facility, the board must determine eight specific points." In re Application of Buckeye Wind, L.L.C., 131 Ohio St.3d 449, 455, 2012-Ohio-878 at ¶27. Those eight points are set forth in R.C. 4906.10(A).

The Bratenahl Residents contend that the Revised Stipulation, and the conditions contained therein, do not provide an adequate basis for the Board to assess the probable environmental impact of the Project or to determine whether it represents the minimum adverse environmental impact. Accordingly, the Board should reject the Revised Stipulation and deny the Application for a Certificate.

B. Icebreaker Has Failed to Demonstrate the Nature of the Project's Probable Environmental Impact or That the Facility Represents the Minimum Adverse Environmental Impact

Icebreaker filed its Application on February 1, 2017. At that time, it stated that "[w]hile state and federal agencies have agreed that the information regarding the impact to fish and wildlife supports a finding that the permitting processes at the state and federal levels can move forward, they have requested that the Applicant conduct additional field surveys prior to construction in order to provide a direct comparison with postconstruction survey information, as a means to assess the level of wildlife impact during the operational phase of the project." Application (Applicant's Ex. 1) at 90 (emphasis added).

Significantly, U.S. Fish and Wildlife Service ("FWS") and ODNR, in comments on Icebreaker Pre-Construction and Post-construction Monitoring Survey Protocol, <u>Bratenahl</u> Residents' Ex. 7, noted that "FWS and ODNR have been requesting this information [avian radar data from the Project site] since 2008." <u>Bratenahl Residents' Ex. 7</u> at 2. See also Tr. at 324-25, 582. The FWS explicitly concluded that Icebreaker's pre- and post-construction bird and bat studies, cited in the U.S. Department of Energy's ("DOE") draft Environmental Assessment (the "Draft EA"), were insufficient:

The conclusions reached in the [D]raft EA regarding potential impacts to birds and bats are based on available data collected primarily outside of the project area. . . . Additional data on bird use of the airspace were generated using NEXRAD weather radar data from the Cleveland area which provides limited data about bird and bat use within the airspace that will be occupied by the turbines (the "rotor-swept zone."). . . . Studies of bird and bat use of the specific project area have been recommended by the Service for several years . . . but are just starting to be implemented. . . . Data from these site-specific studies are not available for inclusion in the Draft EA.

Thus, the conclusions in the Draft EA are based on assumptions that observations from other parts of Lake Erie are relevant to the project area, and that impacts at onshore wind facilities in the U.S. and Canada are relevant predictors of impacts to birds and bats at offshore wind developments in Lake Erie. *These assumptions may or may not be accurate*. Because of the potential risk of bird and bat mortality, and because this project is designed to be a demonstration project to evaluate offshore wind installation in the Great Lakes, pre-construction monitoring to inform risk and post-construction monitoring to assess actual impacts are necessary components of the project that must be implemented.

. . . If per-turbine impacts are not accurately measured for this precedentsetting project, risk levels of larger future projects may be substantially underestimated.

October 4, 2017 FWS Letter to DOE (Bratenahl Residents' Ex. 12) at 2-3 (emphasis added).

⁹Icebreaker admits that it already would have collected the requested radar data if it had placed a radar unit at the Project site at any time since 2008, as suggested by ODNR and FWS. 9/26/18 Gordon Test, at 552.

Moreover, FWS not only concluded that Icebreaker's study data was insufficient, it also concluded that assertions made by Icebreaker that birds migrate <u>around</u> Lake Erie, instead of crossing it (parroted in DOE's Draft EA), are affirmatively misleading:

Section 3.4.1.3 of the Draft DA describes the Affected Environment relative to birds and bats. Pages 3-29 and 3-32 describe a NEXRAD weather radar analysis of bird and bat use of the project area. . . . Page 3-32 states, "Several recent studies employing marine radar in shoreline environments have demonstrated relatively high densities of nocturnal migrant birds along the shorelines of Lake Erie and Lake Ontario, reinforcing the understanding that such migrants tend to concentrate along coastlines and avoid flying over large water bodies, such as Lake Erie, if possible. . . . Page 3-51 includes a similar statement. These statements are misleading These [cited] publications instead state that migrants concentrate on the shoreline during dawn and daytime when they land to rest and refuel. During the actual nocturnal migration, however, migrants commonly cross Lake Erie and all of the other Great Lakes. . . .

Id. at 3 (emphasis added).

After the filing of the Application, Board Staff began its investigation and review of the Application. On October 23, 2017, however, Staff moved to suspend the procedural schedule after concluding that Applicant had not submitted sufficient information with regard to "the viability and design of the pre-and post-construction radar monitoring protocol that Applicant intends to utilize at the project site for determining project impacts." Motion to Suspend the Procedural Schedule at 1-2. Staff noted that "It]his information is necessary to measure the effect of off-shore turbines on birds and bats. . . ." Motion to Suspend the Procedural Schedule at 2 (emphasis added). Staff further explained:

Due to the fact that this project is precedent-setting, since it is the first proposed off-shore wind facility in Lake Erie, Staff requires more information on the radar technology monitoring protocol it selected for this small demonstration project and whether it can reliably measure the effect of off-shore turbines on birds and bats and inform of the risk levels for future development projects in Lake Erie. The pre-construction radar monitoring protocol is important to Staff's investigation because it establishes baseline conditions using methodologies that will be duplicated during the project's operational phase to provide robust pre- vs. post-construction comparisons for impact assessment.

Motion to Suspend the Procedural Schedule at 2-3 (emphasis added). Staff noted that the Applicant's failure to provide to the Board valid pre- and post-construction radar monitoring studies inhibited the Board from determining the probable environmental impact of the Project on birds and bats:

Staff believes it is necessary that Applicant provide it with additional supplemental information on the viability and design of the pre- and post-construction radar monitoring protocol that Applicant intends to utilize at the project site for determining project impacts. * * * This information is necessary to measure the effect of off-shore turbines on birds and bats as discussed. . . .

Motion to Suspend the Procedural Schedule at 1-2 (emphasis added). The Board agreed, and in an October 23, 2017 ALJ Entry granting the motion, noted that Staff had a "need to consider, supplemental information relating to the radar technology monitoring protocol selected for this project and whether it can reliably measure the effect of offshore turbines on birds and bats and inform of the risk levels for future development projects in Lake Erie. . . ." *In re Application of Icebreaker Windpower, Inc.*, No. 16-1871-EL-BGN, slip op at 2, ¶7 (Oct. 23, 2017).

Icebreaker responded to the request for additional information on its pre- and post-construction radar monitoring protocol on January 24, 2018 by submitting a document dated "December, 2017" entitled "Evaluation of Icebreaker Wind project vendor proposals for radar-based monitor of flying animals" authored by Robert H. Diehl ("the Diehl Report"). The Diehl Report was admitted into evidence as <u>Applicant's Exhibit 37</u>. In Icebreaker's view, the Diehl Report satisfied Staff's request by providing more information on its proposed pre- and post-construction radar monitoring protocols at the project site. 9/6/18 Mabee Pre-Filed Test. at 6, ¶19. See also 1/24/18 Letter from Pirik to McNeal (submitting Diehl Report to Board).

That report, however, consists of nothing more than Mr. Diehl's evaluation of three vendors' proposals submitted in response to Applicant's request for information -- <u>all</u> of which

proposals, Diehl concluded, contained numerous deficiencies. See Applicant's Ex. 37 at 1. As a result, the Diehl Report did <u>not</u> contain the requested information necessary for Staff to evaluate the sufficiency of an avian radar system to be used by Icebreaker (Icebreaker did not, in fact, propose a specific system it would use). Furthermore, Diehl candidly acknowledged that he was "in a poor position to evaluate certain claims made by vendors about their software capabilities" because the vendors treat such information as trade secrets. <u>Applicant's Ex. 37</u> at 3. Finally, Diehl noted that all of the vendors proposed to deploy radar "on a floating barge," rather than a fixed platform, presumably to reduce the cost of their proposals, but that "an evaluation of the costs and benefits of adopting this approach is beyond the scope of this evaluation." <u>Applicant's Ex. 37</u> at 9-10.

Indeed, while Diehl identified the proposal submitted by "Vendor A" as "the approach most likely to succeed," Applicant's Ex. 37 at 1, he also emphasized that "Vendor A's approach is not without concern, particularly over the ability to track targets in an offshore setting where sea clutter will likely pose a persistent problem that is magnified by a rolling and pitching barge." Id. (emphasis added). Diehl therefore "suggest[ed] numerous modifications to Vendor A's approach," id., and "wonder[ed] what radar configurations might be available from other vendors and whether they might represent more suitable solutions." Id. at 2, but candidly admitted that he was "unaware of any vendors, including those not responding to [Icebreaker's] RFI, capable of implementing such a strategy in the near term." Id. at 28 (emphasis added). Although the Diehl Report evaluated the three proposals submitted to Icebreaker, it did not definitively indicate whether the proposal evaluated as "the approach most likely to succeed" by Diehl would be selected by Icebreaker for the pre- and post-construction radar monitoring protocols it intended to use.

Staff agreed with these assessments of the Diehl Report. In its 7/3/18 Staff Report, <u>Staff Ex. 1</u>, Staff noted that "[b]irds and bats are likely to be impacted by this project," but that "the radar monitoring and collision monitoring are still in development." <u>Staff Ex. 1</u> at 22, 23. Staff also noted that Diehl had <u>not</u> concluded that any of the proposals he reviewed would actually work:

Radar monitoring would be used to determine several key data points for patterns of project area use for nocturnal migration and feeding of birds and bats. Technology for radar monitoring is still being evaluated by the Applicant. Radar monitoring would play a key role in documenting peak times of activity such as migration and other seasonal patterns, and would help to document avoidance, attraction, and/or displacement. The Applicant retained a third party, Dr. Robert Diehl of the US Geological Survey, to assess the feasibility of three proposals for implementing an offshore radar program. All three proposals relied on deploying vessel-based radar using a barge anchored at four corners. Dr. Diehl identified the strengths and weaknesses of the three proposals, and offered suggestions to improve results, but was not able to confirm definitively that any of the three proposals would be successful. Dr. Diehl stated, "Far too many unknowns are present to anticipate the outcome of radar work in relation to this project." It still appears at this point that the movement of a barge may introduce errors to the radar data. However, some of these errors could be corrected through the use of stabilizing instrumentation (such as a gimbal), postcollection processing and statistical analysis.

The Applicant's conclusion that impacts would be low was based, in part, on the assumption that migratory species would remain close to the shore and not cross over the lake. However, recent USFWS radar monitoring in Cleveland has shown large numbers of nocturnal migrants exhibiting flight patterns that suggest they are crossing the lake, which demonstrates the importance of a successful radar study.

The Applicant has agreed to go forward with vessel-based radar monitoring, as they believe it would provide suitable information on the impacts of the project. Staff recommends that the certificate be conditioned to require the radar-monitoring program to include the following:

- Radar must be able to detect and track directional movement and altitude of individual 10-gram and larger vertebrates.
- Radar must have the ability to collect data continuously, due to the pulsed nature of migration.
- Radar must suppress false detections from insects, wave clutter, and weather and without downtime bias with respect to biological periods (dawn, dusk,

- night) (80 percent or greater of survey time producing viable data, including during heavy precipitation events).^[10]
- Radar must be able to determine flight altitude of migrants at altitudes near and entirely within the rotor-swept zone at the project site to quantify collision risk.
- Radar must be able to provide information that can be used to determine and quantify behavioral avoidance or attraction to turbines in the open water setting.
- Radar must collect data for both small bird migratory seasons and bat migratory seasons (April to mid-June; August to mid-November) preconstruction.
- Radar must collect data for at least two spring/fall migratory seasons postconstruction to determine behavioral changes that make collision more or less likely.

At this time, it is unclear if a moving platform would be able to meet these criteria. A stable platform appears to be the most viable option to collect this data. Staff recommends that if the preconstruction radar data does not meet the above listed criteria, as determined by Staff and the ODNR, construction should not be allowed to commence until such requirements are satisfied.

¹⁰The FWS also adhered to this 80% standard. See FWS December 21, 2017 Letter to Diehl (Staff Ex. 2) at 2. See also 9/24/18 Karpinski Test. at 140. The conditions (specifically, Condition 22(c)) set forth in the Stipulation did not contain such a requirement, as it expressly exempted collection of data from times of high seas and heavy precipitation, Tr. at 125, 457-58, which Icebreaker's own witnesses acknowledge could significantly reduce the time radar was providing relevant data. 9/24/18 Karpinski Test. at 164-65. Nor did the Diehl Report contain such an 80% requirement. 9/24/18 Karpinski Test. at 135-37. Although Staff insisted that this standard was essential for the collection of reliable and relevant data, 10/2/18 Hazelton Test. at 1657-59, Staff has agreed, in the Revised Stipulation, to lower the requirement to 75% to allow for these "constraints." See Staff Ex. 14 at 7.

¹¹Until it entered into the Revised Stipulation, Staff had maintained that a stable platform mounted radar unit would be "more reliable because it took out the question about the barge moving and the tolerance of radar—a radar unit on a barge, and being able to see those smaller targets that we were interested in in Ohio." 10/2/18 Hazelton Test. at 1631. Even Icebreaker's witnesses acknowledged that "sea clutter"—which inhibits the collection of valid date—would be magnified on a rolling and pitching barge, 9/25/18 Karpinski Test. at 228-29; 9/27/18 Mabee Test. at 780, 804, and that they could not say whether barge-mounted radar would provide useful data because there too many unknowns. 9/25/18 Karpinski Test. at 235. Indeed, Icebreaker could point to no successful study resulting from radar mounted to a floating platform, 9/25/18 Karpinski Test. at 244, and has performed no testing to determine whether radar on a moving platform will provide data as reliable as that on a fixed platform. 9/27/18 Mabee Test. at 768. Moreover, Icebreaker admits that mounting "radar on a fixed platform would remove the movement issues. . . ." 9/27/18 Mabee Test. at 820.

Staff Ex. 1 at 23-24 (emphasis added).

Indeed, Staff steadfastly adhered to its view that Icebreakers' pre- and post-construction radar monitoring systems were insufficient during the adjudicatory hearing held from September 24-October 2, 2018. As noted above, Erin Hazelton, in her pre-filed testimony, opined that Staff could not assess the nature of the probable environmental impact of the project because "Applicant has not completed the pre-construction or post-construction monitoring. . . . " 9/18/18 Hazelton Pre-Filed Test. at 6 (Staff Ex. 3) (citing R.C. 4906.10(A)(2)). Hazelton further testified that the conditions set forth in the then-proposed Stipulation (in which the Board Staff did not join) (Joint Ex. 1) were "not in the public interest" and did not "ensure [that] the project represents the minimum adverse environmental impact" because, "[a]t this time, the Applicant has not identified a suitable technology" to monitor bird and bat activity at the Project site and to detect bird and bat collisions with the wind turbines. Id. at 10 (concluding that Icebreaker's proposed "Stipulation Condition 19 is not in the public interest regarding protection of wildlife and does not satisfy R.C. 4906.10(A)(3), which requires the project to represent the minimum adverse environmental impact."). See also Id. at 12 (concluding that Icebreaker's proposed "Stipulation Condition 22 is not in the public interest regarding protection of wildlife and does not satisfy R.C. 4906.10(A)(3), which requires the project to ensure the minimum adverse environmental impact.").

Hazelton echoed Staff's concerns during her live testimony, noting that radar and collision monitor protocols still have not been finalized, 10/2/18 Hazelton Test. at 1611, and further testifying:

Q. [Atty. Secrest] Okay. Do you contend that this project is anything other than low risk to migratory birds and bats?

A. [Hazelton] I would say at this point in time, because we don't have the required data concerning pre-construction surveys, it's really difficult to determine that now. So it may be accurate. It's also possible that it's not entirely accurate.

10/2/18 Hazelton Test. at 1605-06 (emphasis added). Hazelton continued:

We feel that there is a risk to wildlife that would be using the project site, and wildlife would be using the project site from those time periods [March 1 - January 1] for various reasons. Again, we can't—we understand that the nature of the risk is to likely birds and bats primarily. However, we don't have the data yet to quantify that risk and that's what we are looking for with the preconstruction surveys, as well as the post-construction surveys, so we can verify if that prediction is correct.

10/2/18 Hazelton Test. at 1648 (emphasis added). Of particular concern to Staff was the lack of flight altitude data to determine the risk to birds and bats through the turbines' rotor-swept zone:

Q. [Atty. Stock] Is it the position of ODNR that one of the purposes of pre-construction radar is, as indicated in [Staff Report] Condition 22(d), to provide flight altitude of migrants at or near the—near and entirely within the rotor-swept zone at the project to quantify collision risk?

A. [Hazelton] *It is.* The goal of that would be, again, to quantify the risk. We understand generally what the risk would be, *but we are unable to quantify that at this time with the information that we have.* That's all.

10/2/18 Hazelton Test. at 1694 (emphasis added). Moreover, Hazelton indicated that the Board needed such data for the entire migratory season—March 1 through January 1—because "we have very little pre-construction data for this project and this site at this time. . . ." 10/2/18 Hazelton Test. at 1702. See also 10/2/18 Hazelton Test. at 1703-04. 12

Hazelton's testimony was buttressed by the testimony and report of Bratenahl's expert witness Henry M Streby, Ph.D. ("Streby"). Streby is an Assistant Professor of Ecology within the Department of Environmental Sciences at the University of Toledo. Direct Testimony of Henry M. Streby (submitted at <u>Bratenahl Residents' Ex. 23</u>) at 1. Streby has more than fifteen

¹²The "little data" that the Board did have included "bat acoustic date from the project-site, but unfortunately not in the rotor-swept zone at this time." 10/2/18 Hazelton Test. at 1704.

years of "experience in study design, data collection, and statistical analysis in avian ecology research," and his current research focuses on "ecology of birds that stop to refuel along the southern shoreline of Lake Erie during their spring and fall migrations to and from breeding grounds north of Ohio." Bratenahl Residents' Ex. 23 at 1-2. Streby echoed Board Staff's conclusion that Icebreaker had failed to submit sufficient data on bird and bat activity at the project site:

Based on the documentation I have reviewed with relevance to the Icebreaker Application, it is my professional opinion that: (1) adequate preconstruction monitoring of bird activity in the Project area has not been completed, rendering it impossible to make a reliable determination of the nature of the probable environmental impact of the Project on birds, or that the Project represents the minimal adverse environmental impact on birds; (2) the known great densities and volumes of birds that use and pass over Lake Erie on an annual basis indicate that the Project will negatively impact birds, and the existence of numerous locations in North America in general and the Midwest in particular, where relatively few birds concentrate, precludes the Project from representing the minimal adverse impact on nocturnal migratory birds; and (3) adequate pre- and post-construction monitoring plans are not in place to meaningfully determine the risk or measure the impact of the Project on birds in the Project area.

Unless and until relevant pre-construction data are collected for at least two years using modern avian radar systems (like the MERLIN units used by the USFWS) on fixed platforms located at both the Project site and a comparable control location, no scientifically reliable conclusions can be drawn about the impacts of the Project on the enormous number of birds, and the many bats, that use the Project area. The cost of acquiring and deploying such monitoring systems in relevant locations (structures in the Project area that are planned to be built anyway) is unavoidable if scientifically sound comparisons are desired. This type of basic scientific rigor is not included in any of the pre-construction studies relied on by Icebreaker.

Bratenahl Residents' Ex. 23 at 2 (emphasis added).

Streby's Expert Report, attached to and part of his pre-filed testimony (<u>Bratenahl</u> Residents' Ex. 23) elaborates on his conclusions. Streby specifically opines that Icebreaker's statement that it had a "thorough understanding of existing avian activity at the site" was "false"

because "[t]o date, no study has been conducted that could provide a scientifically credible count or estimate of the number of birds that use the proposed project area during any time period." Streby Report at 5. See also Streby Report at 6 (same). "The risk of mortality, disturbance, or displacement of birds cannot be assessed if the density and species of birds using the area have not been determined." Streby Report at 6. And Streby noted that the studies submitted by Icebreaker—including the Diehl Report—were "insufficient" and "inappropriate" "[d]espite nearly a decade of guidance from the USFWS on how to address the issue" *Id.* Simply put, "[t]he risk of mortality, disturbance, or displacement of birds during spring and fall migration cannot be assessed if the number and volume of birds passing through the project area has not been determined." *Id.*

Moreover, it was "factually inaccurate" for Icebreaker to assert "that very few birds fly below 100-and-however-many meters. . . . " 10/1/18 Streby Test. at 1472. The NEXRAD radar data relied heavily upon by Icebreaker for its contention that there is a low risk to migrating birds and bats was insufficient because it does not measure altitude, *i.e.*, whether the birds are flying at an altitude that would pass through the rotor-swept zone, and does not pick-up birds flying at an altitude of less than 114 meters. 9/27/18 Mabee Test. at 861; 9/27/18 Erickson Test. at 940, 1083-84; 10/1/18 Streby Test. at 1501-02. See also Bratenahl Resident's Ex. 7 at 2.; 9/25/18 Gordon Test. at 324-25, 406. Moreover, NEXRAD can only track the flight of a large group of birds, not individual birds. 9/26/18 Good Test. at 581.

Even Icebreaker's own witness, Caleb E. Gordon, Ph.D, testified that he did not know how many birds fly through the Project's rotor-swept zone during migrations periods, 9/25/18 Gordon Test. at 317, and Icebreaker's experts have not performed any radar study that covers the entirety of the Project's rotor-swept zone. 9/25/18 Gordon Test. at 331. Moreover, Icebreaker

submitted to the Board a report entitled "Summary of Risks to Birds and Bats," authored by its witnesses Gordon and Wallace P. Erickson, in which they acknowledged:

Nonetheless, there is still a great deal of uncertainty regarding the potential for offshore wind energy to create adverse impacts on birds and bats, owing partially to the newness of offshore wind energy relative to land-based wind energy development, particularly in the US. and also to the inherent difficulties in gathering data on wildlife risks and impacts in the offshore environment. (Emphasis added).

Bratenahl Residents' Ex. 9 at 1. See also 9/25/18 Gordon Test. at 351.

In addition to failing to provide valid radar data or to identify any validated pre- or post-construction radar technologies it may use, Icebreaker also has failed to identify any collision monitoring technology that has been validated to accurately detect bird and bad collisions with the Project's turbine blades. 9/25/18 Karpinski Test. at 272; 9/25/18 Gordon Test. at 437; 9/26/18 Good Test. at 622; 9/27/18 Mabee Test. at 919. Indeed, Icebreaker admitted that it was still evaluating a number of different collision monitoring technologies, 9/26/18 Good Test. at 668-70, and trying to "refine" that technology. 9/28/18 Erickson Test. at 1007. These required evaluations are still in "the first steps to validation...." 9/28/18 Erickson Test. at 962. Such technology is necessary "to document collisions at the site, to determine if bird and bat mortality are resulting in significant adverse impacts, if mortality is much higher than predicted or lower than predicted, prior to construction." Tr. at 638. Without validation of the proposed technologies, the Project's probable impacts cannot be assessed. 9/26/18 Good Test. at 638. Furthermore, Icebreaker's witnesses acknowledge that a proven collision detection technology for wind turbines in an off-shore setting does not yet exist. 9/26/18 Good Test. at 728-30.

Notwithstanding Staff's significant reservations concerning, and Streby's severe criticism of, Icebreaker's failure to collect critical data on bird and bad activity at the Project site, and its failure to even identify validated technologies by which it might be able to accurately collect

such data, Board Staff has agreed to the Revised Stipulation with Icebreaker. <u>Joint Ex. 2</u>. Again, Icebreaker still has not even identified any validated radar technology it can use to accurately assess birds and bat activity at the Project site, or any validated collision monitoring technology it might employ for the Project—<u>all</u> of which is necessary <u>before</u> any determination can be made of the probable impact of the Project on birds and bats. 8/20/19 Hazelton Test. at 1768. Nevertheless, Staff has reversed its opposition to the Project, and now opines that the Project represented the minimum adverse environmental impact as required by R.C. 4906.10(A)(3). Again, Staff has reversed its position despite the fact that since last fall, when Staff <u>opposed</u> the Project, <u>Icebreaker has not submitted to Staff or the Board any Project site pre-construction avian radar data or identified any validated technologies by which it will attempt to determine whether its turbines will kill birds or bats.</u>

Hazelton now testifies in favor of the Project even though Staff and ODNR believe that birds and bats migrate through the Project's rotor-swept zone, 8/20/19 Hazelton Test. at 1773-74, but still have no idea as to how many thousands of birds and bats migrate through the RSZ. 8/20/19 Hazelton Test. at 1751. She acknowledges that there is a risk of bird and bat mortality as a result of the Project, but ODNR remains unable to quantify that risk, 8/20/19 Hazelton Test. at 1753, because Icebreaker still has failed to place any radar device at the Project site, still has failed to collect and submit any radar data encompassing the Project's rotor-swept zone, and still has failed to even identify any validated radar technology to be deployed at the site. 8/20/19 Hazelton Test. at 1768.

Furthermore, Hazelton acknowledges that Icebreaker is likely to deploy a moving barge-mounted radar system, 8/20/19 Hazelton Test. at 1771; <u>Staff Ex.</u> 3 at 8, despite Staff's reservations (repeatedly communicated to Icebreaker) that such a radar system will not produce

viable data. 7/3/18 Staff Report (Staff Ex. 1) at 23-24 ("We're not sure if the [barge-mounted] radar will be successful..."). 8/20/19 Hazelton Test. at 1771. "We're not aware of a radar system that's been deployed on a moving platform, so movement is a concern," *id.*, and Staff remains unclear on whether a moving platform will be able to meet its criteria for necessary, and accurate, bird and bat data. 8/20/19 Hazelton Test. at 1774.

Hazelton further testifies that Icebreaker has yet to identify or propose a collision monitory system, 8/20/19 Hazelton Test. at 1775-76, or an adaptive management strategy. 8/20/19 Hazelton Test. at 1769. Both radar monitoring and collision monitoring for the Project "are still in development." 8/20/19 Hazelton Test. at 1770. Indeed, Hazelton testified at the August 20 hearing that there are still "no proven post-construction collision monitoring technologies or methodologies available for the offshore setting." 8/20/19 Hazelton Test. at 1748, 1775 (emphasis added).

Because of Icebreaker's utter failure to perform the required pre-construction avian radar studies, and its utter failure to even attempt to identify and perform validation testing for viable post-construction collision technology, former FWS avian radar expert Dr. Jeff Gosse has opined that Icebreaker's proposed Project does <u>not</u> represent the minimum adverse environmental impact. See 8/13/19 Gosse Pre-Filed Test. (<u>Bratenahl Residents' Ex. 24</u>).

My professional opinion, to a reasonable degree of scientific certainty, is that neither the Current Record nor the Pre-Filed Testimony sets forth scientifically valid data or identifies validated methodologies sufficient for the Board to make findings and determinations: (1) as to the nature of the probable environmental impact of the Project on birds and bats as required by $R.C. 4906.1 \ O(A)(2)$; or (2) that the Project represents the minimum adverse environmental impact to birds and bats as required by $R.C. 4906.1 \ O(A)(3)$.

<u>Bratenahl Residents' Ex. 24</u> at 4 (emphasis added). Dr. Gosse expressly opines that Revised Stipulation Conditions 15 and 18 do <u>not</u> ensure that the Project will have the minimum adverse environmental impact:

The Current Record and the Pre-Filed Testimony do not present any indication that Icebreaker has identified a specific technology that it proposes to use for pre- or post-construction radar monitoring for birds and bats, or for post-construction collision detection for birds and bats, much less that Icebreaker has performed any validation testing of any such proposed technologies and presented the testing results to the Board. As a result, there is no basis for the Board to make findings and determinations as to the probable environmental impact of the Project on birds and bats as required by R.C. 4906.1 0(A)(2), or that the Project represents the minimum adverse environmental impact to birds and bats as required by R.C. 4906.1 0(A)(3).

Id. at 5 (emphasis added). With regard to proposed Revised Stipulation Condition 20, Dr. Gosse testifies:

Nowhere in the Current Record or the Pre-Filed Testimony do Icebreaker or Staff explain how Icebreaker will detect whether state or federally listed endangered species "encounter" the Project. The Ohio Department of Natural Resources ("ONDR") does not explain how it can enforce this condition absent Icebreaker's ability to detect whether state or federally listed endangered species have encountered the Project.

Id. (emphasis added).

Despite Board Staff's unjustified "about-face," agreeing to the Revised Stipulation, the simple facts remain that Icebreaker, over two and a half years since it filed its Application, still:

(1) has not conducted the required (and repeatedly requested) pre-construction avian radar study at the Project site; (2) has not collected data as to the volume and density of birds and bats migrating through the Project RSZ; (3) has not identified any technologies or methodologies by which it will determine whether birds or bats collide with the Project's turbines; (4) has not identified any technologies or methodologies by which it will determine whether endangered or protected species are killed the Project's turbines; or (5) has not subjected any such identified

technologies to validation testing before employing them in Lake Erie. <u>All</u> of these failures prevent the Board from making any scientifically valid findings or determination as to probable environmental impact of the Project, or from concluding that the Project represents the minimum adverse environmental impact, as mandated by R.C. 4906.10(A)(2) & (3). On this record, the Board, has no choice but to <u>reject</u> the Revised Stipulation and to <u>deny</u> Icebreaker's Application for a Certificate.

C. The Conditions Set Forth in the Revised Stipulation, if Approved by the Board, Would Constitute an Unlawful Delegation of the Board's Decision-Making Authority to ODNR Without Board Review in a Public Hearing.

Another fatal flaw in the Revised Stipulation is that it would have the Board issue a Certificate to Icebreaker <u>now</u>—<u>before</u> the Board can make any findings or determinations as to the Project's probable environmental impact or that the Project represents the minimum environmental impact—and <u>delegate to ODNR</u> the authority to make the final determinations as to the Project's probable impact and minimum adverse effect <u>after Icebreaker submits to ODNR</u> at some future date the required Project site avian radar data and a validated collision monitoring technology. These after-Certificate-issuance ODNR determinations are <u>not</u> to be subject to Board Review in a public hearing.

¹³For example, Condition 15 now provides that "the monitoring plans attached to the MOUs must be finalized and accepted through written communications from the ODNR. . . ." 7/26/19 Karpinski Pre-Filed Test. at 3, ¶6. The "revision [to Condition 17] increases the time period the Applicant must submit the fisheries and aquatic resources monitoring plan to the ODNR and Staff for review from at least 60 days prior to construction to 120 days; and clarifies that prior to commencement of construction the monitoring plan must be finalized and accepted through written communications from the ODNR." *Id.* With regard to Condition 18, the Revised Stipulation "clarifies that prior to commencement of construction the avian and bat impact mitigation plan must be finalized and accepted through written communications from the ODNR; [and] . . . that any modification to the impact mitigation plan must be finalized and accepted through written communications from the ODNR; [and] *Id.* at 4, ¶6. See also *Id.*, Condition 19 (same, with regard to the "fisheries and aquatic resources impact mitigation plan").

The Revised Stipulation's delegation to ODNR of final decision-making authority to determine probable environmental impact and minimum adverse impact, matters that must be decided by the Board under R.C. 4906.10, constitutes an illegal delegation of the Board's quasijudicial or decision-making authority. Although the Board may delegate many of its responsibility to subordinates, *In re Application of American Transmission Sys., Inc.*, 125 Ohio St.3d 333, 336-37, 2010-Ohio-1841 at ¶20, "[o]ne responsibility . . . cannot be delegated: 'the board's authority to grant certificates under section 4906.10 of the Revised Code shall not be exercised by any officer, employee, or body other than the board itself." *Id.*, 125 Ohio St.3d 333, 337, 2010-Ohio-1841 at ¶21 (quoting R.C. 4906.02(C)).

The Supreme Court has recently addressed a similar issue with regard to the PUCO. In In re Ohio Power Co., 155 Ohio St.3d 320, 2018-Ohio-4697, the Court considered the Commission's approval of an electric distribution utility's electric security plan ("ESP"). The Commission approved the plan, including a power purchase agreement ("PPA") rider with a rate set at zero because no costs had yet been incurred by the utility. On appeal, the Consumers' Counsel asserted that approval of the ESP was in error because the Commission failed to consider the costs and benefits of the PPA rider as required under the statutory test for approval of an ESP. The Court disagreed, noting that the commission "found that it was not necessary to quantify the impact of the placeholder PPA Rider in its analysis given that the rider was approved with a rate of zero, any future costs associated with it were then unknown, and any rate would be imposed only after additional proceedings." 155 Ohio St.3d at 323, 2018-Ohio-4697 at ¶10 (emphasis added). The Court concluded that "any harm caused by the commission's alleged failure to properly conduct the statutory test in the ESP case was cured when the commission conducted the test in the PPA Rider case." 155 Ohio St.3d at 324, 2018-Ohio-4697

at ¶12. Consequently, the Court dismissed the appeal because the Consumers' Counsel had failed to demonstrate harm from the order on appeal. 155 Ohio St.3d at 325, 2018-Ohio-4697 at ¶18. See also *In re Ohio Edison Co.*, 2019-Ohio-2401 at ¶39 (Ohio) ("We have upheld the commission's decision to exclude no-cost or placeholder riders from the statutory test when, as here, no costs are recovered under the rider during the ESP term.").

An important factor in the Court's decisions in *Ohio Power* and *Ohio Edison* was that the commission considered whether the PPA costs were prudently incurred by the utilities in a separate proceeding. *Ohio Power Co.*, 155 Ohio St.3d at 324, 2018-Ohio-4697 at ¶12; *Ohio Edison Co.*, 2019-Ohio-2401 at ¶38. In this case, the Board cannot find and determine that Icebreaker's avian radar technology and collision monitoring system have established the probable environmental impact of the Project and will insure that the Project represents the minimum environmental impact. The Board cannot make those determinations at this point because the radar technology and the collision monitoring system do not yet exist -- much less have the systems been operated and produced data determined to be accurate. Instead, the Revised Stipulation leaves those findings and determinations to be made by ODNR, with unbounded discretion and subject to no Board review, as the product of future negotiations between Icebreaker and ODNR. That delegation of the Board's statutory responsibility is illegal.

The Court has applied this same principle to the Power Siting Board. The Court has held the Board does not improperly delegate its authority where it "allows a certificate to be issued upon such conditions as the Board considers appropriate," *In re Application of Buckeye Wind, L.L.C.*, 131 Ohio St.3d 449, 452, 2012-Ohio-878 at ¶16 (citing R.C. 4906.10(A)) (emphasis in original). "Simply because certain matters *are left for further review* and *possible public comment* does not mean that they have been improperly delegated to staff." *Id.*, 131 Ohio St.3d

at 452, 2012-Ohio-878 at ¶17 (emphasis added). Again, however, the key to allowing such decisions is that the Board must have the opportunity for further review.

The Revised Stipulation does not provide for further Board review of ODNR's findings and determinations to be made at some future date. Rather, it simply leaves these R.C. 4906.10(A)(2) and (3) determinations solely to the discretion of ODNR— findings and determinations that the Board must make before issuing a Certificate to Icebreaker. With no avian radar for the Project RSZ and no validated collision monitoring even identified, the Board simply is unable, at this point, to make any valid findings or determinations as to the Project's probable environmental impact or whether the Project represents the minimum adverse environmental impact. The Revised Stipulation delegates the authority to make these findings and determinations to ODNR in its sole discretion, at some future date. 8/20/19 Hazelton Test. at 1779.

- Q. [Atty. Stock] I guess I didn't understand your answer. We are here in a proceeding for the Board approval of this [Revised] Stipulation, correct?
- A. [Hazelton] Correct.
- Q. All right. Pursuant to this Revised Stipulation, if and when Icebreaker comes to ODNR with this new technology for collision detection, there's no requirement that the proposal be submitted to the Board so that it can be subject to an adjudicatory hearing and analysis by experts, for instance, retained by the Bratenahl Residents for another expert to render his or her opinion as to whether or not this technology works; is that correct?
- A No. The Board -- the way this is proposed, the Board -- it would be approved as is currently. If the Board does not approve it, they have the option to modify it when it goes before them for approval if they don't agree to the way this is written.
- Q. But if they [the Board] agree to the way it [the Revised Stipulation] is written, there is no requirement that the technology be brought back to the Board for the Board's approval.
- A. True, correct.

Q. All right. And there's no requirement that an independent expert with respect to the knowledge -- technology be retained by ODNR before it gives the sign-off, right?

A. No. That detail is not part of the Stipulation.

8/20/10 Hazelton Test. at 1778-79 (emphasis added). See *In re Application of Buckeye Wind*, *L.L.C.*, 131 Ohio St.3d 449, 462, 2012-Ohio-878 at ¶53 (Lundberg Stratton, J., dissenting) ("Issues are not to be settled *after* construction is approved, much less by unaccountable staff members without public scrutiny or judicial review.") (emphasis in original).

The Ohio Supreme Court has noted that:

In the operation of any public administrative body, subdelegation of authority, impliedly or expressly, exists-and must exist to some degree. The real issue for decision is at what point delegation must stop and the board itself must act.

Bell v. Board of Trustees, 34 Ohio St.2d 70, 74, 76 (1973) (citations omitted) (holding that county hospital board of trustees considering the removal of an employee could appoint hearing examiners and delegate "the authority to conduct a hearing" so long as "the ultimate decision lies in a higher authority"). See also Waspe v. Ohio State Dental Bd., 27 Ohio App.3d 13, 15-16 (10th Dist. 1985) ("Although it must (and here does) retain final adjudicatory authority, common sense dictates, and R.C. 4715.04 authorizes, that the board delegate investigatory and enforcement authority.") (citation omitted).

Because the exercise of judicial authority calls for a great degree of discretion, whether it be the judicial authority vested in the judiciary or that vested in an administrative agency, the law disfavors its complete subdelegation. * * *

Bell and Waspe may stand for the proposition that an agency generally cannot subdelegate the power to exercise final judicial authority. This proposition is inapplicable to the subdelegation of a duty . . . that requires the exercise of relatively little discretion.

State v. Cooper, 120 Ohio App.3d 284, 294-95 (10th Dist.) (emphasis added), appeal denied, 80 Ohio St.3d 1410 (1997). Here, in stark contrast, the Board is delegating vast, unbounded, discretion to ODNR—discretion which ODNR readily admits it does not possess the expertise to exercise—to determine whether Icebreaker's as-yet-unidentified technologies will ensure that the Project represents the minimum impact to birds and bats. And ODNR is to exercise this unbounded discretion without review by the Board and without scrutiny in a public hearing, both of which are required by law.

Furthermore, the fact that the Board—if it were to approve the Revised Stipulation—would be subdelegating its decision-making to another state entity (ODNR) is irrelevant. Courts have consistently held that an agency's general ability to subdelegate decision-making authority does <u>not</u> allow it to subdelegate such authority to an outside entity, whether that entity is private or another government agency:

When a statute delegates authority to a federal officer or agency, subdelegation to a subordinate federal officer or agency is presumptively permissible absent affirmative evidence of a contrary congressional intent. But the cases recognize an important distinction between subdelegation to a subordinate and subdelegation to an outside party. The presumption that subdelegations are valid absent a showing of contrary congressional intent applies only to the former. There is no such presumption covering subdelegations to outside parties. Indeed, if anything, the case law strongly suggests that subdelegations to outside parties are assumed to be improper absent an affirmative showing of congressional authorization.

This distinction is entirely sensible. When an agency delegates authority to its subordinate, responsibility—and thus accountability—clearly remain with the federal agency. But when an agency delegates power to outside parties, lines of accountability may blur, undermining an important democratic check on government decision-making. * * *

The fact that the subdelegation in this case is to state commissions rather than private organizations does not alter the analysis. * * *

We therefore hold that, while federal agency officials may subdelegate their decision-making authority to subordinates absent evidence of contrary congressional intent, they may not subdelegate to outside entities—private or sovereign—absent affirmative evidence of authority to do so.

United States Telecom Ass'n v. Federal Communications Comm'n, 359 F.3d 554, 555-56 (D.C.Cir.) (emphasis added) (citations omitted), cert. denied, 543 U.S. 925 (2004).

In this case, unlike the conditions the Board approved in In re Application of Buckeye Wind, L.L.C., 131 Ohio St.3d 449, 2012-Ohio-878, the Board has left significant issues going to the heart of the project's environmental impact to the sole discretion of ODNR. The General Assembly has expressly committed the assessment of the project's probable environmental impact and the determination that the facility represents the minimum adverse environmental impact to the discretion of the Board, not to one state department with a single seat on the Board. If the Board issues a Certificate as contemplated by the Revised Stipulation, the Board would not be making a determination on at least two of the required factors set forth in R.C. 4906.10(A): the nature of the Project's environmental impact and that the Project represents the minimum adverse environmental impact. The Board cannot make those determinations because, as set forth above, and as Board Staff admits, there is not sufficient data in the record in this case to make those determinations, and Icebreaker has yet to implement (or even identify) a validated technology that could provide the Board with the required data. Under the Revised Stipulation, those decisions are being left to ODNR alone. Although ODNR's Director is a member of the Board, the full Board will not be afforded an opportunity to review the technology or data that Icebreaker may submit at some date in the future to enable those statutory determinations to be made. In short, the Board is being asked to unlawfully delegate (or sub-delegate) its decisionmaking authority to ODNR -- with unbounded discretion, without review by the Board in a public hearing, as required by law. The Board cannot abdicate its statutory duties under R.C.

4906.10. It must reject the Revised Stipulation's illegal delegation of the Board's statutory obligations to ODNR.

D. Icebreaker Has Failed to Establish That the Project Will Serve the Interests of Electric System Economy and Reliability or That the Project Will Serve the Public Interest, Convenience, and Necessity

Finally, Icebreaker has not established that the Project will serve the public interest, convenience, and necessity as required by R.C. 4906.10(A)(6). 10/1/18 Brown Test. at 1343. In largely unrefuted testimony, Dr. Richard E. Brown, PhD., P.E., an internationally-recognized expert on electric power systems, testified:

The Application does not explain why there is a public need for the Facility. In terms of power generation, public need is related to sufficient baseload generation, other aspects of system reliability, economic benefit, environmental benefit, or the ability to meet renewable energy portfolio standards.

PJM does not need the Facility for baseload generation, and has a robust capacity market to address any baseload requirements that may arise. PJM publishes an annual Regional Transmission Plan that includes state summaries ("Book 5"). The most recent state summary for Ohio is for the Jan.-Dec. 2014 period. This state summary identifies 1,260 MW of planned generation retirement in Ohio (pp. 249). It also identifies 2,523 MW of new generation in Ohio that is under construction (pp. 237). That is, the amount of new generation being constructed is about twice the amount of planned retirements. his analysis does not include additional proposed generation requests, which amount to 6,714 MW (pp. 237).

Any public need benefit associated with the Facility besides baseload generation can be achieved at a fraction of the cost by purchasing wind power from existing wind facilities through PPAs. The Application should explain why ratepayers should pay significantly more for Facility output when much cheaper sources of wind power is available.

9/13/18 Brown Pre-Filed Test. (<u>Bratenahl Residents' Ex. 21</u>) at 4, ¶1. See also 10/1/18 Brown Test. at 1293.

Moreover, Dr. Brown testified that Icebreaker has failed to specify the costs of any delays or indicate the effect such delays will have on the federal funding that is crucial to its Project's

economic success. 9/13/18 Brown Pre-Filed Test. (<u>Bratenahl Residents' Ex. 21</u>) at 4, ¶2. Moreover, pursuant to the terms of Icebreaker's power purchase agreement with Cleveland Public Power ("CPP"), CPP "will be paying much higher rates than it would pay for currently available wind farm PPAs . . .," *Id.* at 5, ¶5, and passing those inflated electricity costs on to Cleveland urban electricity consumers. Indeed, "[f]acility energy prices in the PPA are about *five time higher* than PJM prices." *Id.* at 6, ¶3 (emphasis added). See also 10/1/18 Brown Test. at 1352. "The facility is not needed for renewable energy; renewable energy can be currently purchased for a fraction of the PPA price." 9/13/18 Brown Pre-Filed Test. (<u>Bratenahl Residents'</u> Ex. 21) at 6, ¶4. See also 10/1/18 Brown Test. at 1295.

Brown further opined that:

The facility is not economically viable, even with the PPA price that is five times higher than PJM prices, and even if it receives a large DOE grant.

Large-scale offshore wind facilities are also not financially viable in the Great Lakes.

The development of offshore wind facilities will not eliminate the need for new traditional baseload generation, most likely using natural gas as fuel.

Production tax credits for wind generation facilities result in market distortions that directly conflict with the performance and operational needs of the electric system.

CPP ratepayers should not be forced to heavily subsidize the Facility through the PPA, which is essentially a hidden tax.

9/13/18 Brown Pre-Filed Test. (Bratenahl Residents' Ex. 21) at 6, ¶5-9.

The foregoing demonstrates that Icebreaker has provided insufficient information from which the Board can conclude that "the facility will serve the public interest, convenience, and necessity" as required by R.C. 4906.10(A)(6). Accordingly, the Board must reject the proposed

Revised Stipulation and deny Icebreaker's Application for a certificate of environmental compatibility and public need.

V. CONCLUSION

For the foregoing reasons, the Bratenahl Residents respectfully urge the Board to deny Icebreaker's Application for a Certificate of Environmental Compatibility & Public Need.

Respectfully submitted,

/s/ John F. Stock

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CERTIFICATE OF SERVICE

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