BEFORE
THE OHIO POWER SITING BOARD

In the Matter of the Application of **REPUBLIC WIND, LLC** for a Certificate of Environmental Compatibility and Public Need for a Wind-Powered Electric Generating Facility in Seneca and Sandusky Counties, Ohio	)))))	Case No. 17-2295-EL-BGN

REPUBLIC WIND, LLC'S INITIAL POST-HEARING BRIEF

Dylan F. Borchers (0090690)
Devin D. Parram (0082507)
Dane Stinson (0019101)
BRICKER & ECKLER LLP
100 South Third Street
Columbus, OH 43215-4291
Telephone: (614) 227-2300
Facsimile: (614) 227-2390
E-Mail: dborchers@bricker.com
dparram@bricker.com
dstinson@bricker.com

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I. INTRODUCTION

Republic Wind, LLC ("Republic" or "Applicant") requests that the Ohio Power Siting Board ("Board" or "OPSB") issue a certificate of environmental compatibility and public need ("Certificate") to Republic for the Republic Wind Farm ("Project"). The Board has been provided sufficient evidence to find and determine that the requirements of each of the eight subsections of Ohio Revised Code ("R.C.") 4906.10 are either met or inapplicable.

The Board Staff ("Staff") recommended in its Staff Report that the Board grant the Certificate subject to certain conditions. Republic requests that the Board issue a Certificate with Staff's proposed conditions, with the exception of certain conditions discussed below. The record in this proceeding supports Republic's proposed modifications to Staff's recommended conditions. Republic's proposed modifications will result in a Certificate that minimizes the potential impacts while also ensuring the viability of the Project.

II. BACKGROUND

A. Summary of the Proceeding

On February 2, 2018, Republic filed its initial application for the Project with the Board. Applicant ("App.") Ex. 1 (February 2, 2018 Application ("Appl."). At the time of this filing, the Application proposed a wind energy facility located in a rural portion of Seneca and Sandusky

Counties consisting of up to 58 turbines, not to exceed 200 MW. Prior to filing the Application, Republic held a public information meeting on November 29, 2017. On May 23, 2018, the Application was issued a completeness letter stating that the Application had been found to comply with the requirements of Ohio Administrative Code ("O.A.C.") 4906-1, et seq. Subsequent to the filing of the Application, a number of public and private entities intervened in this proceeding.

On December 26, 2018, Republic filed an Amended Application pursuant to O.A.C. 4906-3-11(A). App. Ex. 1C (December 26 2018 Amended Application ("Am. Appl."). The Amended Application modified the facility in a number of ways. The Amended Application modified the Project's wind turbine array, without adding additional parcels of land, and introduced new wind turbine models. The amendment reduced the number of turbines that are to be constructed, the number of acres in the Project Area (by 9,000 acres), as well as the number of access roads, meteorological towers and collector lines (the "Project Area"). App. Ex. 13 at p. 7 (Direct Testimony of Dalton Carr ("Carr Direct")). Although not required under the rule to amend a pending application, O.A.C. 4906-3-11(A), Republic voluntarily held a public information meeting on December 11, 2018 to share information and gather feedback about the Amended Application.

On June 28, 2019, Republic submitted a project modification and information update. App. Ex. 1E, att. A (June 28, 2019 Notice of Project Modifications ("Notice of Modification")). This filing increased the capacity of two currently-proposed turbine models, without any change to the turbines' dimensions. It also introduced another turbine model for potential use in the Project that is smaller than other potential turbines. The modifications did not create further impacts for property owners within the planned site, and in some cases, resulted in a reduction of impacts to property owners. *Id.* at pp. 7-8.

B. Proposed Facility

The proposed facility is located in Adams, Pleasant, Reed, Scipio, and Thompson Townships in Seneca County, Ohio, and in York Township in Sandusky County, Ohio. The facility and will consist of no more than fifty wind turbine generators, each with a nameplate capacity rating of 3.6 to 5.7 MW, depending on the final turbine model selected. The total generating capacity will not exceed 200 MW. The Project's annual energy production will be approximately 560,000 to 665,000 megawatt hours ("MWh"). App. Ex. 13 at pp. 1-7 (Carr Direct).

Republic proposes to use either Vestas V136 (3.6 MW), Vestas V150 (4.2 MW), Siemens SG145 (4.5 MW), or Nordex N149 (4.5 MW) wind turbines. Staff Report at p. 6. In addition, the Vestas V150 and the Nordex N149 have uprated models of 5.6MW and up to 5.7MW respectively. The Vestas V136 would be used at up to ten sites. *Id.*

The Project also consists of access roads, electrical interconnection, construction staging areas, operations and maintenance facility, up to two meteorological towers and the substation. The total proposed Project Area is 24,000 acres. Notably, the actual footprint of the facility will occupy a much smaller area. Specifically, the permanent operating footprint of the facility will be approximately fifty-six acres, or approximately 0.2% of the total leased lands. App. Ex. 13 at p. 7 (Carr Direct).

III. STANDARD OF REVIEW

Pursuant to R.C. 4906.10(A), the Board shall not grant a certificate for the construction, operation, and maintenance of a major utility facility, either as proposed or as modified by the board, unless it finds and determines all of the following:

> (1) The basis of the need for the facility if the facility is an electric transmission line or gas pipeline;

(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;

(4) In the case of an electric transmission line or generating facility, that the facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems and that the facility will serve the interests of electric system economy and reliability;

(5) That the facility will comply with Chapters 3704., 3734., and 6111. of the Revised Code and all rules and standards adopted under those chapters and under sections 1501.33, 1501.34, and 4561.32 of the Revised Code. In determining whether the facility will comply with all rules and standards adopted under section 4561.32 of the Revised Code, the board shall consult with the office of aviation of the division of multi-modal planning and programs of the department of transportation under section 4561.341 of the Revised Code.

(6) That the facility will serve the public interest, convenience, and necessity;

(7) In addition to the provisions contained in divisions (A)(1) to (6) of this section and rules adopted under those divisions, what its impact will be on the viability as agricultural land of any land in an existing agricultural district established under Chapter 929. Of the Revised Code that is located within the site and alternative site of the proposed major utility facility. Rules adopted to evaluate impact under division (A)(7) of this section shall not require the compilation, creation, submission, or production of any information, document, or other data pertaining to land not located within the site and alternative site.

(8) That the facility incorporates maximum feasible water conservation practices as determined by the board, considering available technology and the nature and economics of the various alternatives.

The evidentiary record in this matter supports a Board finding that the criteria under R.C. 4906.10 are either not applicable or are satisfied.

IV. ARGUMENT

A. The Record in this Proceeding Supports Findings and Determinations Under R.C. 4906.10(A).

1. Republic's Witnesses Presented Testimony to Sufficiently Support Approval of the Amended Application.

Republic's witnesses presented testimony sufficient for the Board to make the necessary findings and determinations under R.C. 4906.10(A). Republic presented the following witnesses, each of whom was qualified as an expert in his or her respective field:

APPLICANT WITNESS	SUBJECT
Dalton Carr Development Manager Apex Clean Energy	Application overview; Project background; Project benefits; response to local concerns; response to Staff Report and conditions
Paul Kerlinger Independent Consulting Biologist	Avian studies and reports; bat technical assistance letter
Chris Leftwich Chief Operating Officer Copperhead Environmental Consulting	Bat studies and reports
Isaac Old Consultant Resource Systems Group, Inc.	Noise impact assessment
Jane Rice Principal Environmental Design & Research ("EDR")	Socioeconomic Report
Susan Lawson Project Manager EDR	Cultural resources
Kenneth A. Mundt Epidemiologist; Principal Health Scientist Cardno ChemRisk ("Cardno")	Alleged adverse health impacts of wind turbine noise and shadow flicker
Matthew Robinson Visualization Project Manager EDR	Visual Impact Assessment

APPLICANT WITNESS	SUBJECT
Ryan Rupprecht Senior Project Scientist, Practice Lead Cardno	Wetland Delineation/Environmental Assessment
Shawn McGee Office Practice Leader, Geotechnical Engineering & Inspection TRC	Goundwater, hydrogeological and geotechnical
Michael MaRous President MaRous & Company	Property values
Francis Marcotte Consultant	Aviation- helicopter flight
Benjamin M. Doyle President Capitol Airspace Group	Aviation

2. The Project is Not an Electric Transmission Line or Gas Pipeline, Therefore the Board is Not Required to Determine the Basis for Need Under R.C. 4906.10(A)(1).

The Project is an electric generation facility, not an electric transmission line or gas pipeline. Therefore, this statutory criterion is inapplicable.

3. The Board has Adequate Evidence to Determine the Nature of the Probable Environmental Impact of the Project and to Determine that the Project Represents the Minimum Adverse Environmental Impact Under R.C. 4906.10(A)(2) and 4906.10(A)(3).

a. <u>Socioeconomic Impacts</u>

i. Land Use

The record demonstrates that the Project will not have a significant impact on land use. Republic proposes to construct the Project on approximately 19,000 acres of leased private land in rural areas of Seneca and Sandusky counties, Ohio. Staff Ex. 1 at p. 6 (July 25, 2019 Staff Report ("Staff Report")). It will construct, own, and operate all structures associated with the facility. In 2010, Seneca County had a population of approximately 56,745 persons and Sandusky County's

population was approximately 60,944 persons. Staff Ex. 1 at pp. 22-23 (Staff Report). The population of each county has decreased between 1990 and 2000 and is expected to continue decreasing over the next ten years. The Project is not expected to significantly alter these population trends. App. Ex. 13 at p. 7 (Carr Direct); Staff Ex. 1 at pp. 22-23 (Staff Report).

The development plans of each county center on job creation, economic opportunity, and the preservation of agricultural activities. The Project will enable the area to maintain its rural character and support its local farmers. As hosts of a renewable energy project, Seneca and Sandusky county farmers will be able to use their land to provide clean, domestic energy for the region, while creating a new and predictable revenue stream for themselves. App. Ex. 13 at p. 16 (Carr Direct).

Approximately fifty-six acres of agricultural land is expected to be permanently converted to wind farm use. Staff Ex. 1 at p. 22. No structures are expected to be removed or relocated for the proposed facility's construction or operation. *Id.* The Project will comply with the required property line setbacks unless waived by cooperating property owners. Significant impacts to commercial, industrial, recreational, and institutional land uses are not anticipated because applicable setback rules allow for sufficient distance to mitigate any potential impacts. *Id.*

The construction and operation of the proposed facility will not physically impact any recreational facilities. No national parks, forests, wildlife refuges, natural landmarks or federally designated scenic rivers are within a ten-mile study area. *Id.*

ii. Cultural Resources

The Project will not have any direct impact on known cultural resources beyond a limited visual impact. Republic has satisfied the requirements set forth under the O.A.C. 4906-04-08(D)(1) and (2) by evaluating all cultural resources located within five miles of the proposed

Project Area, an area known as "the Study Area." App. Ex. 1C at Ex. S (Cultural Resources Report).

Republic Witness Lawson testified that she or those working under her direction reviewed existing cultural resource records in order to identify any known or suspected cultural resources within the Study Area. Records available at the Ohio State Historic Preservation Office ("OSHPO") were reviewed, including: OSHPO previous Phase I, II, and III cultural resource surveys; National Register of Historic Places; National Register of Historic Places Determination of Eligibility properties; National Historic Landmarks List; Ohio Historic Inventory; Ohio Department of Transportation; Historic Bridge Inventory; Ohio Archaeological Inventory; Ohio Genealogical Society cemetery files; and Mills Archeological Atlas of Ohio. The review also included archives and repositories, such as the Geographic Information Systems mapping system of the OSHPO, the David Rumsey map collection, Ancestry.com and other online sources, and EDR's in-house collections. App. Ex.26 at p. 3 (Updated Direct Testimony of Susan Lawson ("Lawson Direct")).

As the Cultural Resources Report indicates and as Ms. Lawson testified, the Project is not expected to have any direct impact on known cultural resources beyond a limited visual impact. App. Ex. 26 at p. 4 (Lawson Direct).

iii. Visual Impact

Republic has met the requirements relative to assessing the potential visual impact of the Project. As Matthew Robinson testified, O.A.C. 4906-4-08(D)(4) indicates that a 10-mile radius is the appropriate visual study area for the identification of scenic and historic resources, which is what he used in preparing the Visual Impact Assessment ("VIA"). App. Ex 1C at Ex. AA (VIA); App. Ex. 21 at p. 3 (Direct Testimony of Matthew Robinson ("Robinson Direct")).

The methodology Mr. Robinson used to create the VIA is well-known and accepted. To that end, the VIA procedures used comply with O.A.C. 4906-04-08(D)(4) and are consistent with methodologies developed by the U.S. Department of the Interior, Bureau of Land Management, U.S. Department of Agriculture, National Forest Service, U.S. Department of Transportation, Federal Highway Administration, and other state and federal agencies. They are widely accepted as standard visual impact methodology for wind energy projects. App. Ex. 21 at p. 6 (Robinson Direct).

Analysis of potential turbine visibility was undertaken by two methods, detailed in the VIA and Mr. Robinson's Direct Testimony: (1) identifying areas of potential Project visibility on viewshed maps and (2) verifying potential visibility in the field. The VIA examines the visual impact of the proposed wind turbines, and associated equipment and clearing on the aesthetic resources and viewers within the visual study area. App. Ex. 21 at pp. 6-7 (Robinson Direct).

After completing the thorough identification of data and the creation of simulations, Mr. Robinson set forth the results of the VIA. Review of these visual simulations and the existing conditions photographs allows for comparison of the aesthetic character of each view with and without the Project in place. App. Ex 1C at Ex. AA, Appendix D (VIA).

With regard to minimizing the visual impacts of the Project, the VIA incorporated accepted practices into the Project design in order to minimize visual impacts to the surrounding landscape and community, including siting of facilities, technology in turbine selection with greater generating capacity, and use of underground collection lines to minimize above ground visible components. App. Ex. 21 at pp. 14-15 (Robinson Direct).

b. <u>Ecological Impacts</u>

Republic identified the potential ecological impacts of the Project in its Amended Application and through direct testimony at the evidentiary hearing. Republic's Amended

Application, the Staff Report, and the direct testimony in this proceeding provide sufficient evidence to allow for a finding that the Project will have a minimum ecological impacts.

i. Geotechnical/groundwater

Republic presented sufficient evidence to demonstrate that the Project will have limited impacts on geology or groundwater in the Project Area. The Amended Application contains the following information:

- An evaluation of the impact to public and private water supplies due to construction and operation of the proposed facility.
- An evaluation of the impact to public and private water supplies due to pollution control equipment failures.
- Existing maps of aquifers, water wells, and drinking water source protection areas that may be directly affected by the proposed facility.
- How construction and operation of the facility will comply with any drinking water source protection plans near the project area.
- An analysis of the prospects of floods for the area, including the probability of occurrences and likely consequences of various flood stages, and describe plans to mitigate any likely adverse consequences.
- A description of the suitability of the site geology and plans to remedy any inadequacies.
- A description of the suitability of soil for grading, compaction, and drainage, and plans to remedy any inadequacies and restore the soils during post-construction reclamation.
- A description of plans for the test borings, including closure plans for such borings. Plans for the test borings shall contain a timeline for providing the test boring logs and the following information to the Board: (i) subsurface soil properties; (ii) static water level; (iii) rock quality description; (iv) percent recovery; and (v) depth and description of bedrock contact.

App. Ex. 1C at Ex. F (Groundwater, Hydrogeological, and Geotechnical Report ("Geotechnical Report")).

The Geotechnical Report demonstrates that the local geology or hydrology will not be prohibitive to construction of wind turbines and related facilities. Tr. IV at p. 813, et seq. (Cross Examination of Shawn McGee ("McGee Cross")). Republic Witness McGee testified that, in addition to a desktop review, he or members of his team visited numerous turbine sites. *Id.* at p. 818. He testified that the Geotechnical Report identified areas of known, probable, and suspected karst geology within the Project boundary. *Id.* at pp. 818-823. Further, he explained that Republic would conduct site-specific investigations into each proposed turbine location prior to construction. For example, he testified that "as part of the final design process, the designer would go out, hire a geotechnical firm, and drill geotechnical borings at the exact turbine locations and determine the subsurface conditions at those locations." *Id.* at p. 824. Similarly, he testified that "a plan of grout would be part of the final design which . . . would be the next phase of the project." *Id.* at p. 841.

Mr. McGee also testified that at least some property owners within the Project boundary utilize groundwater for their water supplies. *Id.* at p. 828. The Project design, he testified, would manage groundwater drainage, and the drainage patterns would not be modified. *Id.* at pp. 846-47. He explained that "[t]ypically turbine locations don't change any surface water drainage patterns" because "predevelopment topography is used for post-construction" drainage management. *Id.* at p. 847.

ii. Surface water impacts

The proposed Project will have little impact on surface waters. The Project is proposed to be built primarily on land that is already being disturbed seasonally/annually for agriculture. App. Ex. 1C at Ex. J., 7.2 (Ecological Assessment). Republic has limited waterbody impacts to 0.55 acres of temporary impacts (to streams and ditches) and plans to avoid all temporary or permanent

impacts to wetlands. *Id.* Moreover, the only permanent waterbody impacts are to ditches for the installation of road culverts. These impacts are further detailed below.

The stream impacts that would occur would be as a result of proposed construction of access roads and installation of collection lines. Staff Ex. 1 at p. 26 (Staff Report). Most stream impacts are limited to manmade agricultural or roadside ditches. *Id.* at p. 27. Republic would employ mitigation measures, such as horizontal directional drilling ("HDD"), for installation of collection lines through perennial streams, resulting in no impacts to perennial streams in the Project Area. *Id.* Further, impacts to wetlands within the Project Area will be avoided through Project design and/or the use of HDD. *Id.* No permanent wetland loss would therefore occur as a result of the Project construction or operation. *Id.* In addition, Republic will continue to coordinate with Ohio EPA and the United States Army Corps of Engineers to ensure that all anticipated wetland and stream impacts are properly permitted. *Id.* A Stormwater Pollution and Prevention Plan ("SWPPP") will also be developed to control potential sedimentation, siltation, and run-off, and develop best management practices to ensure compliance with Water Quality Standards and regulations. *Id.*; App. Ex. 1C at Ex. J, 7.2.3.4.

The applicable permits for the Project will be limited to the Ohio National Pollutant Discharge Elimination System ("NPDES") construction storm water general permit, Ohio EPA General Permit No. OHC000004 and Army Corps of Engineers Nationwide Permit 51 under Section 404 of the Clean Water Act. Staff Ex. 1 at p. 50 (Staff Report). To obtain NPDES coverage under the General Permit, a Notice of Intent will be submitted to Ohio EPA at least 21 days prior to the commencement of construction. *Id.* Moreover, impacted areas in the Project Area will be restored to preconstruction conditions in compliance with the General Permit and approved SWPPP for the Project.

iii. Threatened and Endangered Species

The Project's impact on threatened and endangered animal and plant species will be minimal. The facilities were sited and designed to minimize potential impacts generally, and Staff concluded that the Project represents low potential impact to streams, wetlands, and wildlife. Staff Ex. 1 at pp. 44, 46. As for wildlife, Staff noted that Republic has coordinated with USFWS and the Ohio Department of Natural Resources ("ODNR") on wildlife protocols and study expectation. *Id.* at p. 45.

Field studies documented the presence of state and federal listed Indiana Bat ("IB") and Northern Long Eared Bat ("NLEB") in the Project Area. *Id.* at p. 29. Staff recommended that Republic obtain a Technical Assistance Letter ("TAL") from USFWS that would detail the curtailment regime for avoidance of the IB. *Id.* at p. 30. Staff noted that the operational measures in the TAL, as implemented, would not only protect the IB but also the NLEB and other bat species. *Id.* On September 24, 2019, USFWS issued a TAL for the Project. App. Exs. 13 and 15, Carr Direct, att. DC-1. The TAL set forth specific measures designed to avoid potential take of both the IB and the NLEB, including turbine setback, feathering, tree clearing windows, and post-construction monitoring. TAL at p. 1; att. Term Sheet. Republic has committed to the avoidance measures set forth in the TAL. Thus, the Project represents the minimum adverse impact as to the listed bat species.

Over a span of seven years, eleven avian studies (with a multitude of survey dates/time periods) were completed for and/or relating to the Project, including bird/raptor migration, raptor nest, bald eagle, passerine migration, breeding bird, eagle nest monitoring, raptor nest, and large bird and eagle use surveys. App. Ex. 22 at pp. 4-7 (Direct Testimony of Paul Kerlinger ("Kerlinger Direct")). ODNR determined these studies and surveys, including several performed for the related Emerson West Wind Project, met its pre-construction monitoring protocols for the Project

boundary. App. Ex. 22 at p. 9 (Kerlinger Direct). A wide variety of avian species were documented in these studies, the vast majority being non-listed, common species. App. Ex. 1C at Ex. J, 6-1 – 6.4 (Ecological Assessment).

While collision with turbines is a documented source of avian fatality, studies demonstrate low levels of such fatalities at most sites and relatively minimal impact compared with other sources of avian mortality. App. Ex. 1C at pp. 144-146, incl. Table 8-9. The Staff Report did not note any areas of concern relating to impacts to avian species generally. The Staff Report noted the bald eagle nest found 1.9 miles from the nearest turbine (in 2018) and that records exist in the Project Area for the upland sandpiper, northern harrier, and loggerhead shrike (state endangered birds). Staff Ex. 1 at pp. 31-32. Staff recommended Republic submit a post-construction avian and bat monitoring plan for ODNR and Staff approval and that, if any significant mortality is reported, a mitigation plan be developed. *Id.* at pp. 30-31.

Staff recommended a number of conditions to address listed bat species, bald eagle, upland sandpiper, northern harrier, and loggerhead shrike presence; encountering federal and state listed plant and animal species; and significant adverse impacts to wild animals. *Id*. at pp. 64-66. These conditions and Republic's proposed modifications to them are addressed later in this brief. Staff ultimately concluded there is low potential to impact wildlife and recommended that the Board find the Project represents the minimum adverse environmental impact and, therefore, complied with the requirements in R.C. 4906.10(A)(3). *Id.* at p. 46.

iv. Vegetation

The Project's impact on surrounding vegetation will be minimal. Vegetative communities within the Project survey area were evaluated through desktop interpretation of aerial photograph and verified using field surveys. App. Ex. 1C at Ex. J, 6.4.1. Agricultural land and forestland were found to be the dominant community types within the Project Area. Staff Ex. 1 at p. 32.

Construction activities that may result in impacts to vegetation include site preparation, earthmoving activities, excavation, and backfilling activities associated with construction of the laydown area, access roads, crane paths, foundations, and underground collection systems. *Id.* at p. 33. These construction activities would result in cutting and clearing of vegetation and soil disturbance and exposure. *Id.* The permanent loss of vegetation due to the Project's construction would potentially total: 1 acre of forestland; 0 acres of barren land; 0 acres of scrub shrub; and 49.5 acres of agricultural land. *Id.* at p. 32. Moreover, records exist within the Project Area for the Engleman's spike rush, a state endangered plant. Following Staff's recommendation, Republic will perform a pre-construction survey to ensure that the plant is not impacted by construction or operation, coordinating these efforts with the ODNR. Staff Ex. 1 at p. 33. With these additional measures undertaken, and given the small footprint of impacted vegetative acreage, the impacts to vegetative communities within the Project Area during construction and operation will be minimal.

c. Public Services, Facilities, and Safety

i. Setbacks

Republic designed the Project to comply with the applicable statutory and regulatory setbacks. App. Ex. 1C at p. 145. Pursuant to O.A.C. 4906-4-08(C)(2)(b),[1] each wind turbine must be at least 1,125 feet in horizontal distance from the tip of the turbine's nearest blade at ninety degrees to the property line of the nearest adjacent property. *Id.* The maximum rotor diameter for the turbine models under consideration for the Project is 492 feet. *Id.* Therefore, the setback to the property line of the nearest adjacent property is 1,371 feet [(492 feet ÷ 2) + 1,125 feet = 246 feet + 1,125 feet]. All proposed turbine locations comply with this setback. *Id.*

[1] Republic filed its initial application when the prior version of O.A.C. 4906-4-08(C)(2)(b) was in effect. The prior version and the new version of O.A.C. 4906-4-08(C)(2)(b) applied the same setback from the nearest adjacent property.

Republic has also structured the Project to comply with O.A.C. 4906-4-08(C)(2)(c) regarding setbacks from electric transmission lines, gas pipelines, gas distribution lines, hazardous liquid pipelines, and state and federal highways. *Id.* This rule establishes a setback of at least one and one-tenth times the total height of the turbine structure as measured from its tower's base to the tip of a blade at its highest point. *Id.* For this Project, the setback under O.A.C. 4906-4-08(C)(2)(c) is 662.2 feet (602 feet x 1.1). Except for Turbine 42, all the turbines comply with this 662.2 ft. setback. *Id.* Republic has agreed not to construct Turbine 42 in this proceeding. *See* Republic's Notice of Withdrawal of Motion to File Notice of Modification (November 5, 2019); Tr. I at pp. 21-22.

ii. Roads and Bridges

The Project will not result in significant impacts to roads and bridges in the area. To the extent impacts occur, Republic will take steps to remediate these impacts.

Republic performed a transportation study to determine if sufficient road infrastructure exists in the area to support construction of the Project. App. Ex. 1C at Ex. E (Transportation Study). Republic also conducted a field review of roads within the Project Area to identify possible impacts to roads from construction. App. Ex. 1C at p. 40. Republic expects some modifications to local roads may be necessary. *Id.* Upon completion of the facility, Republic will return all roadways to their pre-construction conditions or better. *Id*. Republic will obtain all transportation permits prior to construction if necessary. *Id* at p. 44. Further, Republic will coordinate with the appropriate authorities regarding any temporary or permanent road closures, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. This coordination with the appropriate authorities would be detailed as part of a final traffic plan submitted to Staff prior to the preconstruction conference for review and confirmation that it complies with this commitment. *Id*. at pp. 41-43.

Republic will complete a study on the final equipment delivery route to determine what improvements would be needed to transport equipment to the wind turbine construction sites. Republic will make all improvements outlined in the final delivery route plan before equipment and wind turbine delivery. *Id.* at p. 44. Republic also commits to repairing damage to government-maintained roads and bridges caused by construction or maintenance activities. Any damaged public roads and bridges would be repaired under the guidance of the appropriate regulatory agency. *Id*. Republic will provide financial assurance for the restoration of public roads prior to construction or maintenance. Republic also expects to enter into a road use agreement with the county engineer prior to construction. *Id.*

These various measures demonstrate that Republic will take all reasonable steps to ensure impacts to roads are minimized and remediated.

iii. Blade Shear

The record demonstrates that blade shear incidents are extremely rare and present minimal risk to the public. App. Ex. 1C at p. 83. To the best of the Republic's knowledge, no member of the public has ever been injured as a result of these incidents because appropriate setbacks have proved to be sufficient to protect the public. *Id.* Technological improvements and mandatory safety standards during turbine design, manufacturing, and installation have significantly reduced the instances of blade throw. *Id.*

Modern utility-scale turbines are certified according to international engineering standards. *Id.* The engineering standards of the wind turbines ultimately used for this Project will meet all applicable engineering standards. *Id*. It is anticipated that the wind turbines to be used for this Project will be equipped with two fully independent braking systems that allow the rotor to be brought to a halt under all foreseeable blade shear conditions. In addition, it is anticipated that the turbines will automatically shut down at wind speeds over the manufacturer's threshold. *Id.* at

p. 84. The turbines will also cease operation if significant vibrations or rotor blade stress is sensed by the monitoring systems. *Id.*

Although blade shear incidents are extremely unlikely, Republic will implement emergency shutdown procedures, post event site security measures, and implement turbine manufacturer specific blade throw safety procedures to address any potential incident. *Id.* In addition, Republic will conduct annual training for operating staff and local first responders on the procedures to be implemented in the event of a blade throw incident. *Id.*

Further, setbacks for this Project will adequately protect the public from blade throw. *Id*. The distance between proposed turbines and the nearest non-participating residential structure ranges from 1,471 to 2,549 feet, and averages 1,800 feet. *Id.* The distance between proposed turbines and the nearest non-participating property line ranges from 1,375 feet to 2,396 feet, and averages 1,501 feet. *Id.*

iv. Ice Throw

Public harm from ice throw incidents is extremely unlikely. The proposed turbine models have ice detection equipment and safety features that would shut down a turbine if the buildup of ice were to cause excess vibrations or the speed to power ratio were to become too high. Staff Ex. 1 at p. 36. In response to a Staff data request, Republic submitted an ice throw study to Staff. Staff Ex. 15 at p. 5 (Direct Testimony of Mark Bellamy ("Bellamy Direct")). The results of the ice throw study show that the annual probability of a 1 kg piece of ice landing beyond the property line setback or on public roads is less than 0.01% per year. *Id.*[2] This is further evidence that potential impacts from ice throw are extremely limited.

[2] Staff Witness Bellamy states that Republic's ice throw analyses complies with O.A.C. 4906-4-09(E). This rule was not in effect when Republic submitted its initial Application and the new rules do not apply to Republic's Amended Application. Although Republic submitted this ice throw analysis in response to a data request, Republic does not concede the new rules apply to this Project.

v. Communications

Republic analyzed the potential impacts to communication systems due to the Project. No impacts to AM or FM radio, cable television, radio frequency, or satellite systems are expected. App. Ex. 1C at pp. 93-94. In addition, the Project will not adversely affect civil or military radar systems. *Id.* at p. 93; Staff Ex. 1 at p. 42.

Republic identified 41 microwave paths in the vicinity of the Project Area. A Worst Case Fresnel Zone ("WCFZ") was calculated for each of the microwave paths identified. Staff Ex. 1 at p. 42. The WCFZ represents the area or path in which a turbine or other structure might cause a deflection of microwave signals. *Id.* Republic determined that none of the proposed wind turbine locations would obstruct the WCFZ of the licensed microwave paths in the Project Area. App. Ex. 1C at p. 95. Therefore, no degradation of microwave communication is anticipated. *Id.*

vi. Shadow flicker

Republic's shadow flicker study demonstrates that the impacts from shadow flicker will be limited for non-participating landowners. App. Ex. 1E at att. A (Notice of Modifications). When Republic's Application was filed, there was no Board rule addressing shadow flicker limitations. App. Ex. 1C at p. 87.[3] However, Board precedent indicated that the Board applied thirty shadow flicker hours per year as a threshold of acceptability in certifying commercial wind power projects. *Id.* Accordingly, Republic applied a threshold of thirty shadow flicker hours per year when performing its shadow flicker analysis. *Id.*

In the June 28, 2019 Notice of Project Modifications, Republic submitted an updated shadow flicker study to demonstrate the potential shadow flicker impacts from the newly proposed turbine models. App. Ex. 1E at p. 1 (Notice of Modifications). The updated shadow flicker study

[3] O.A.C. 4906-4-09(H)(1) states that "the facility shall be operated so that shadow flicker levels do not exceed thirty hours per year at any such receptor." This rule, which became effective after Republic filed its initial Application, codified the Board's precedent of thirty shadow flicker hours per year limitation.

demonstrated that ninety-five-percent (95%) of the receptors are predicted to receive less than thirty hours a year in shadow flicker. App. Ex. 1E, Attachment A at p. 3 (June 19, 2019 Updated Shadow Flicker Analysis). Seventy-percent (70%) of the receptors will experience less than ten hours a year in shadow flicker. Although five-percent (5%) of the receptors (thirty-nine receptors) will experience thirty hours or more of shadow flicker each year, 12 of those properties are owned by participating landowners. *Id.* Further, Republic commits to operating the facility such that no non-participating receptors receive more than thirty hours of shadow flicker per year. App. Ex. 1E at p. 1 (Notice of Modifications). Republic will accomplish this goal through neighbor agreements, turbine operational measures, and/or other mitigation measures. *Id.*

vii. Noise

To determine the potential construction and operational noise impacts from the Project, Republic performed a noise study. App. Ex. 1C at Ex. H (December 11, 2018 Noise Impact Assessment Report); App. Ex. 1E at att. B (June 21, 2019 Noise Impact Assessment Report). The noise impact of the proposed wind farm is related to the existing ambient noise level of the Project Area. When the initial Application was filed, there were no Ohio statutes or regulations establishing quantitative noise standards. App. Ex. 13 at pp. 2-3 (Direct Testimony of Isaac Old ("Old Direct")). However, in wind farm cases decided prior to the filing of Republic's initial Application, the Board applied a standard of 5 dBA above nighttime ambient sound limit. *Id.* at p. 3.[4]

To determine the pre-existing ambient sound level for the Project Area in this case, seven sound level monitoring systems were deployed at locations representative of soundscapes present within the Project Area. *Id.* at p. 4. Each location was selected as representative of a given

[4] After the filing of the initial application, O.A.C. 4906-4-09(F)(2) went into effect. O.A.C. 4906-4-09(F)(2) codifies the Board's precedent of an operational sound level limit of 5 dBA above the average nighttime ambient sound level.

landscape or soundscape that would be in and around the Project Area. Factors such as land use, road traffic, distance to roadways, population density, and distance to geographic features (rivers, relative elevation, ground cover, etc.) were considered in selecting the sound monitoring locations. *Id.* at p. 5. Among all seven sites in and around the Project Area, the average nighttime sound level is 41 dBA. *Id.* at p. 6. Applying the Board's precedent regarding the operational sound level limit of 5 dBA above the average nighttime ambient sound level, the operational sound limit for this Project is 46 dBA Leq (1 hr) measured at any non-participating sensitive receptor. *Id.*

Republic also performed sound propagation modeling to determine the potential noise impacts of the Project due to the proposed turbines. *Id*. at p. 7. The model assumes all wind turbines are producing their maximum sound emissions. *Id.* Sound propagation modeling was performed for each of the proposed models at all fifty of the proposed turbine locations. *Id.* at p. 8. In those instances where the modeled turbine exceeded the 46 dBA noise limit at non-participating receptors, selected turbines were placed into noise reduced operations (NRO). *Id.* After incorporating NRO modes for certain turbines, Republic's modeling results showed that, for the eight scenarios evaluated, no non-participating receptors have modeled sound levels in excess of 46 dBA. *Id.*

Staff found that the operational sound output limit of 46 dBA was "not likely to generate unacceptable levels of noise for non-participating residents." Staff Ex. 1 at p. 37. Further, in Condition 44, Staff recommends that Republic comply with O.A.C. 4906-4-09(F)(2) which applies the average nighttime sound level + 5 dBA standard. Staff Ex. 1 at pp. 37, 67. Staff Witness Bellamy also admitted that operational noise limitation of 46 dBA adequately addresses potential concerns for noise impacts on sensitive receptors. Tr. VII at p. 1476.

4. The Board has Adequate Evidence to Determine that the Project is Consistent with Regional Plans for Expansion of the Electric Power Grid and Will Serve the Interests of Electric System Economy and Reliability Under R.C. 4906.10(A)(4).

Grid interconnection studies were initiated in 2009 for the Project. App. Ex. 1C at p. 17. The feasibility study was completed in April 2010, the system impacts study was completed in November 2011, and the facilities study was completed in September 2015. *Id.* PJM analyzed the bulk electric system, with the facility interconnected to the transmission grid, for compliance with NERC reliability standards and PJM reliability criteria. Staff Ex. 1 at p. 49. PJM determined that no reliability standards or criteria were violated. *Id*. In addition, no potential violations were found during the short circuit analysis. *Id.* In the Staff Report, Staff found that the facility would provide additional electrical generation to the regional transmission grid, would be consistent with plans for expansion of the regional power system, and would serve the interests of electric system economy and reliability. *Id.*

5. The Board has Adequate Evidence to Determine that the Project Will Comply with Chapters 3704, 3734, and 6111 of the Revised Code and All Rules and Standards Adopted Under those Chapters and Under Sections 1501.33, 1501.34, and 4561.32 of R.C. 4906.10(A)(5).

a. <u>Air, Water, Solid Waste, and Aviation</u>

i. Air

The operation of the facility will not produce air pollution. Therefore, there are no applicable air quality limitations or air permits required for the operation of facility. App. Ex. 1C at pp. 48-49; Staff Ex. 1 at p. 50. Although no air pollution permits are required for the Project, fugitive dust rules adopted pursuant to the requirements of R.C. 3704 may be applicable. App. Ex. 1C at pp. 48-49. Republic will control fugitive dust through the use of several practices which are described in the Amended Application. *Id.* Staff concluded that both construction and operation of

the Project, as described, will be in compliance with the air emission regulations set forth in R.C. Chapter 3704. *Id.*

ii. Water

The Project is expected to have very limited impacts on water. Because the Project will not require the use of significant amounts of water, R.C. 1501.33 and 1501.34 are not applicable to this Project. Staff Ex. 1 at p. 50.

Republic will obtain the following permits for this Project:

- The Ohio NPDES construction storm water general permit, Ohio EPA Permit No. OHC000004;
- An individual permit or nationwide permit under Section 404 of the Clean Water Act, (if necessary as determined after final engineering);
- A Water Quality Certification from the Ohio EPA (if necessary as determined after final engineering);
- An Ohio Isolated Wetland Permit (if necessary as determined after final engineering); and/or
- An Ohio Permit to Install on-site sewage treatment under O.A.C. 3745-42 (if necessary).

App. Ex. 1C at p. 50.

Republic's compliance with measures and requirements of the NPDES would comply with requirements of R.C. 6111, and the rules and laws adopted under this chapter. Staff Ex. 1 at p. 50.

iii. Solid Waste

The Project will result in limited impacts from solid waste. Republic expects that there will be no debris or solid waste removal necessary prior to construction. App. Ex. 1C at p. 55. Any solid waste generated during the construction or operation of the facility would be secured and removed from the Project Area and disposed of at a licensed disposal facility. *Id.* at p. 56. The operation of the facility will not result in the generation of a significant amount of solid waste. To

the extent solid waste is generated during operation, this solid waste would likely consist of office waste, lube oil containers, used oil, used antifreeze, and general waste. *Id.* Republic would utilize licensed solid waste recycling and disposal services to remove this waste during operation. *Id.*

iv. Aviation: R.C. 4561.31

R.C. 4906.10(A) requires that any certificate issued by the Board must comply with the standards and rules adopted under R.C. 4561.32. The rules required to be adopted are meant to identify and uniformly regulate structures that penetrate "imaginary surfaces" near an airport; specifically an airport's "clear zone surface, horizontal surface, conical surface, primary surface, approach surface, or transitional surface" as contained 14 C.F.R. part 77. R.C. 4561.32. These are the same imaginary surfaces of civil airports identified in 14 C.F.R. 77.19 or military airports identified in 14 C.F.R. 77.21.[5] If a structure penetrates these imaginary surfaces, it is deemed to be an "obstruction" to air navigation under 14 C.F.R. 77.17(a)(5).

R.C. 4561.32 also requires that rules be adopted under which these obstructions can be waived. To uniformly regulate structures, the rules must be applied when issuing permits under R.C. 4561.34 or making determinations under R.C. 4561.341. Waivers are to be based upon "sound aeronautic principles," as set out in various Federal Aviation Administration ("FAA") manuals. R.C. 4561.32, O.A.C. 5501:1-10-05. These manuals provide that a penetrating structure that does not have a "significant aeronautic impact" is not a hazard to air navigation, and may be constructed. App. Ex. 30 at p. 7 (Supplemental Direct Testimony of Benjamin Doyle ("Doyle Supp.")); Tr. Vol. V. at p. 1102 (Cross Examination of John Stains ("Stains Cross")).

[5] 14 C.F.R. 77.21 to 77.29 were amended and re-numbered as 14 C.F.R. 77.17 to 77.23. The terms "horizontal surface, conical surface, primary surface, approach surface, and transitional surface" relate to civil airport surfaces in 14 C.F.R. 77.19. App. Ex. 29 at p. 14 (Doyle Direct). The term "clear zone surface" relates to military airport surfaces. See 14 C.F.R. 77.21(b)(2).

The standards and rules mandated by R.C. 4561.32 are the same standards used by the FAA.[6] Under its rigorous process of review,[7] the FAA determined that none of the Project's proposed 50 turbines would penetrate the 14 C.F.R. 77.19 and 77.21 imaginary surfaces. App. Ex. 29 at att. BMD-1 (Doyle Direct). Thus, none of the proposed turbines would constitute an obstruction under section 77.19, 77.21 or R.C. 4561.32, and waivers needn't be considered. The Ohio Department of Transportation, Office of Aviation ("ODOT-OA") agreed with this analysis when conducting its independent investigation. Tr. Vol. V at p. 1149 (Stains Cross). Because it is undisputed that all of the proposed turbines will comply with the imaginary surface standards listed in R.C. 4561.32, the Board must find that the Project is in compliance with the statute and that the requirements of R.C. 4906.10(A)(5) are fulfilled.

Moreover, the FAA conducted an analysis of the proposed turbines under all 14 C.F.R. 77.17 obstruction standards.[8] The FAA's review involves three major steps:

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[6] Staff may argue that R.C. 4561.32 and the rules adopted thereunder provide ODOT-OA with authority to regulate the safety and efficiency of navigable airspace. This argument would be untenable. The FAA has exclusive authority in regulating the airspace over the United States. See *Gustafson v. City of Lake Angelus*, 76 F.3d 778 (6th Cir. 1996); *See, also, Montalvo v. Spirit Airlines*, 508 F.3d 464, 468 (9th Cir.2007) ("[T]he [Federal Aviation Act] preempts the entire field of aviation safety through implied field preemption. The [Federal Aviation Act] and regulations promulgated pursuant to it establish complete and thorough safety standards for air travel, which are not subject to supplementation by . . . state laws.").

[7] Every FAA aeronautical study is reviewed by various FAA offices: Office of Airports, Technical Operations Services, Frequency Management, Flight Standards, and Flight Procedures, as well as external offices consisting of the Department of the Navy, Depart of the Air Force, Department of the Army, Office of the Secretary of Defense (for Wind Turbine Projects) and the Department of Homeland Security. App. Ex. 29 at pp. 4-5 (Doyle Direct).

[8] 14 C.F.R. 77.17 "Obstruction Standards" provides:

> (a) An existing object, including a mobile object, is, and a future object would be an obstruction to air navigation if it is of greater height than any of the following heights or surfaces:
>
> (1) A height of 499 feet AGL at the site of the object.
>
> (2) A height that is 200 feet AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile from the airport up to a maximum of 499 feet.
>
> (3) A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

1. Whether a proposed turbine creates an obstruction to air navigation under the C.F.R. Part 77. If so:
2. Whether the obstruction has an adverse effect on air navigation, *e.g.*, causes an increase to minimum flight altitudes, changing flight procedures; and
3. Whether the adverse effect has a substantial aeronautic impact *e.g.*, limits the number of flights or "operations" at an airport above established thresholds.

App. Ex. 29 at pp. 4-6 (Doyle Direct). A structure is determined to be a "hazard" to air navigation only if there is a "substantial aeronautic impact" that cannot be mitigated. *Id*. at p. 6. *See also* 14 C.F.R. 77.31; 14 CFR 77.15(a) and (b). The FAA solicits comments from interested stakeholders (in FAA parlance, issues a "circularization") to assist its determination. Absent a substantial aeronautic impact, the FAA issues a Determination of No Hazard ("DNH"). *Id*.

The FAA found that none of the turbines would constitute a hazard to air navigation and issued a DNH for each on June 26, 2019. App. Ex. 29 at att. BMD-1 (Doyle Direct). The FAA's determination means that turbines of up to 606 feet above ground level ("AGL") can be constructed as proposed at each of Republic's fifty sites, without a threat to safety or the efficiency of airport operations.

6. The Board has Adequate Evidence to Determine that the Project will Serve the Public Interest, Convenience and Necessity Under R.C. 4906.10(A)(6) and Provide Additional Benefits.

The Project will serve the "public interest, convenience, and necessity," as required by R.C. 4906.10(A)(6).

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(4) A height within an en route obstacle clearance area, including turn and termination areas, of a Federal Airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

(5) The surface of a takeoff and landing area of an airport or any imaginary surface established under § 77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

a. <u>The Project will benefit the local economy and landowners.</u>

The public benefits of the Project go beyond the provision of safe, reliable, and clean energy. Over half of the public comments submitted to the docket express support for the Project, noting economic growth, benefits to the Seneca County School District, and the property rights of landowners to lease their land for an economically productive use. App. Ex. 13 at p. 8 (Carr Direct). At the hearing, Mr. Carr explained that the National Renewable Energy Laboratory created a program to model the anticipated economic benefits of wind farm projects, known as the Jobs, Economic and Development Impact ("JEDI") model. Tr. I at pp. 130-31. Republic used this JEDI model to anticipate the economic benefits, such as job creation, of the Project. *Id.* at p. 126.

In terms of economic growth, the JEDI model projected that an increase in local tax revenues attributable to the Project could amount to between $1.2 and $1.8 million annually. *Id.* at p. 16. The lease payments to the participating landowners will also allow for those landowners to maintain the rural and/or agricultural character of their property, while passively enjoying a new and predictable revenue stream. *Id.;* App Ex. 16 at p. 3 (Direct Testimony of Jane Rice ("Rice Direct")); App. Ex. 1H at 25 (Confidential Socioeconomic Report). On a state-wide basis, the construction of the Project is expected to produce $41.4 million in employment earnings and $112.2 million in total economic output. App Ex. 16 at p. 3 (Rice Direct). During operation, the Project will create forty-one jobs with associated annual earnings of $2.3 million. *Id.* Ten of the forty-one jobs will be full time on-site operations and maintenance jobs that will produce an estimated $600,000 in annual earnings. *Id.* Twenty-two of these jobs will be supply chain jobs that produce an estimated $1.2 million in annual earnings. *Id.* The remaining nine jobs will be created through induced impacts and produce an estimated $500,000 annual earnings. *Id.*

In addition to the benefits flowing directly from the Project itself, the Company has engaged in larger community sponsorship and support. For example, the Company has been a

sponsor of the Seneca County State Far and Junior Fair every year since 2016, and has supported various other community events. App. Ex. 13 at p. 8 (Carr Direct).

Further, the Project will not negatively affect the value or marketability of the rural residential and agricultural properties in and around the Project footprint. A Market Impact Study, as well as live testimony at the hearing, makes this clear. App. Ex. 28 att. MM-1 (Direct Testimony of Michael MaRous ("MaRous Direct")) (Market Impact Study). The Market Impact Study incorporated sales data for comparable turbine-proximate rural areas in surrounding states, considered feedback from County Auditors, and reviewed numerous peer reviewed studies to determine that there is no evidence that operating turbines have value impact on properties. *Id.* at p. 3.

With respect to the sale price of homes proximate to a wind farm as compared to those of similar homes not proximate to a wind farm, for example, the "per square foot sales prices were essentially the same, indicating the proximity to a wind farm did not impact the price of the proximate sale." *Id.* at p. 3. Mr. MaRous further testified on cross-examination that, despite claims from objectors' blogs and news reports, he was not aware of any peer-reviewed studies finding reduced property values around turbine sites. Tr. IV at p. 857 (Cross Examination of Michael MaRous ("MaRous Cross")). In fact, the Project may have a positive effect on the value and marketability of the participating agricultural properties due to the independent income stream afforded by the turbines' lease payments. App. Ex. 28 at att. MM-1, p. 2 (MaRous Direct).

b. <u>Emergency First Responders will not be adversely impacted.</u>

Republic also investigated and provided evidence of the minimal impact, if any, that the Project will have on the ability of emergency first responders, including EMS helicopter pilots, to operate. Republic will require its contractors to implement its emergency action plan(s) and consult with all necessary local emergency services, including medical facilities. Republic also

intends to provide proper equipment to fire and emergency responders to enable them to respond to emergencies. Staff Ex. 1 at pp. 40-41.

Republic Witness Marcotte testified regarding EMS helicopters' ability to safely fly in the Project Area. Mr. Marcotte, a U.S. Coast Guard Academy graduate with ten years of experience flying Coast Guard rescue helicopters, testified from his perspective as someone who has flown helicopters in and near wind farms. App. Ex. 24 at p. 3 (Direct Testimony of Francis Marcotte ("Marcotte Direct")). With safety as his top priority, he testified that it is possible to safely operate a helicopter within or a near a wind farm in either daytime or nighttime conditions. *Id.*

That is because helicopter pilots already deal with flying around buildings, trees, power lines, antennas and other structures that rise hundreds of feet into the air. Just as instruction on flying near power lines is an essential part of the safety training for pilots, flying near wind turbines should already be a part of all flight training programs, particularly for EMS crews.

In fact, there are large areas of undisturbed air immediately in front of and on both sides of each wind turbine, usable to helicopters. *Id.* Plus, technological advances such as GPS aircraft positioning and mapping equipment allow pilots and flight-following management personnel the ability to fly and track EMS flights near wind turbines. *Id.* And onboard GPS-associated obstruction hazard warning systems backup in-flight pilots. Onboard weather monitoring displays also highlight areas of bad weather to avoid, particularly when the area around wind turbines is obstructed. Night vision goggles (NVG), if necessary, allow pilots to avoid wind farm areas and assist the final approach and landing in and near the wind turbines. All told, it is possible to complete a helicopter EMS flight in and around wind turbines, and in fact, this scenario presents no greater difficulty than if other existing obstacles or obstructions were present. *Id.*

Mr. Marcotte, specifically addressed concerns that the presence of wind turbines could impede landing an EMS flight if there were a nearby accident, stating that once the accident site is

reached and established by the initial first responders, the helicopter pilot would then approach the situation depending on the particular circumstances presented. *Id.* The ideal situation – as with any obstruction like trees, power lines, or towns – is to land the helicopter as near to the on-scene first responders as possible, and slightly down-wind and/or uphill from them if practicable. *Id.*

Further, while there are different aspects of operating a helicopter near a wind farm, after proper training and testing, the rescue missions around wind farms should become routine as procedures are developed and formalized. Tr. III. at p. 694. The distance between the proposed turbines in the Project is also sufficiently far that they can be comfortably circumnavigated. *Id.* at p. 705. The air disturbances around wind farms are not dissimilar to the conditions involved in landing helicopters on roof top helipads or vessels. Both can be done safely with proper training. Finally, Mr. Marcotte also addressed the concern that arrival times for EMS flights could be delayed and testified that during a flight with clear weather, good visibility and ceilings above 1,000 feet, there should be no significant delay because of the alternate flight paths that exist within the wind farm. App Ex. 24 at p. 4 (Marcotte Direct).

In addition to Mr. Marcotte's testimony, the Staff has proposed a condition to address the concerns of Lifeflight. Staff recommended Condition 49 states:

> At least 30 days prior to construction, the Applicant shall prepare through interested and pertinent persons, a plan for at least one predesignated emergency-response landing zone within the project area. The Applicant shall include the location of this landing zone in its emergency response plan.

Staff Ex. 1 at p. 67.

Republic does not oppose this condition. Adoption of this condition will go even further to address any potential concerns of emergency responders who work within the Project Area. Therefore, the record clearly demonstrates that the Project will not have any negative impact on the abilities of EMS providers.

c. <u>The Project provides value to local farmers.</u>

The record demonstrates that the Project will provide significant benefits to farmers in the Project Area. Applicant Witness Baldosser testified that there are numerous benefits for farmers and the community overall. App. Ex. 32 at p. 2 (Direct Examination of Gary Baldosser ("Baldosser Direct")). Mr. Baldosser—a lifelong area resident and farmer—testified that the Project will diversify the streams of income for farmers and landowners, and provide a safety net when the agricultural industry is experiencing unpredictable challenges. *Id.* He testified that the Project will provide Seneca County different sources of income which will help reduce the community's dependence on agricultural production. *Id.* Because of Seneca County's heavy reliance on agricultural production, the county can be severely impacted by unfavorable weather. *Id.*

Mr. Baldosser further testified that the agricultural community in Seneca County has recently suffered significant losses due the weather. In a June 19, 2019 letter, Ohio's Congressional delegation requested that the US Department of Agriculture ("USDA") provide disaster relief to Ohio's farmers unable to plant because of flooding. *Id.* at pp. 2-3. Because of the heavy rainfall, which has prevented farmers from tilling and planting on their land, the Secretary of the USDA declared Seneca County a "primary county disaster designation" in another letter dated July 25, 2019. *Id.* Mr. Baldosser testified that the Project will likely improve the economic conditions in the community and provide additional income to farmers who struggle when unfavorable weather occurs. *Id.*

7. The Board has Adequate Evidence to Determine the Project's Impact on The Viability of Agricultural District Land Under R.C. 4906.10(A)(7).

Under R.C. 4906.10(A)(7), the Board must determine the facility's impact on the viability of agricultural land of any land in an existing agricultural district that is located within the site. As

noted in Republic's Amended Application, significant impacts to agricultural land will be avoided through careful facility design, which deliberately sited facility components along field edges and hedgerows to the extent practicable. App. Ex. 1C at p. 165. Republic estimates that approximately 537 acres of agricultural land will be temporarily disturbed during construction but that less than fifty acres will be permanently lost as a result of the construction. *Id.* at p. 166. Within the Project Area, only approximately eighteen acres of permanent impacts will occur to agricultural district land. *Id*. at p. 167. Staff concluded that the viability of agricultural district land would not be compromised by the proposed Project. Staff Ex. 1 at p. 57. In addition, Republic has proposed a number of mitigation measures designed to protect and restore agricultural lands. App. Ex. 1C at p. 170.

Aside from temporary disturbance during construction activities, the facility is largely compatible with farming practices. Furthermore, as noted by multiple public comments, the facility will not result in a change in land use and will promote the long-term economic viability of the affected farms by supplementing the income of participating farmers. App. Ex. 13 at p. 16 (Carr Direct), citing Public Information Hearing Tr. at pp. 123, 217. Mr. Baldosser testified that a benefit to having a wind farm is to diversify the streams of income for farmers and landowners, and provide a safety net when the agricultural industry is experiencing unpredictable challenges. App. Ex. 32 at p. 2.

Given the information in the Amended Application and witness testimony, the Board should find, as Staff did, that the impact of the proposed facility on the viability of existing agricultural land in agricultural districts has been determined, and is minimal.

8. The Board has Adequate Evidence to Determine that the Project Incorporates Maximum Feasible Water Conservation Practices Under R.C. 4906.10(A)(8).

R.C. 4906.10(A)(8) requires that "the facility incorporates maximum feasible water conversation practices as determined by the board, considering available technology and the nature and economics of the various alternatives." As noted in the Staff Report, wind-powered electric generating facilities do not utilize water when generating electricity. Staff Ex. 1 at p. 50. Staff notes that a potable water supply would be available in the operations and maintenance building for Project and personal needs of the employees using the facility, but the amount of water consumed for these purposes would be minimal. In these circumstances, given the minimal use of water, the requirements of R.C. 4906.10(A)(8) are not applicable to the facility. *See, e.g., In re Paulding Wind IV*, Case No. 18-91-EL-BGN, Opinion, Order, and Certificate at p. 32.

B. Proposed Revisions to Staff's Recommended Conditions

1. Condition 22

Republic proposes modifications to Staff's Condition 22 in order to clarify the scope of Republic's obligation under the terms of this condition. App. Ex. 13 at p. 17 (Carr Direct). Because the condition does not define "sensitive plant species," it is unclear what type of plants Republic would be required to consider when preparing a construction access plan. *Id.* Therefore, Republic proposes the following revisions to Condition 22:

> 30 days prior to the preconstruction conference, the Applicant shall provide Staff with a construction access plan for review. The plan would consider the location of streams, wetlands, and wooded areas, and <u>state and federally listed threatened</u> ~~sensitive~~ <u>plant species</u> as identified by the Ohio Department of Natural Resources (ODNR) and explain how impacts to all <u>such</u> ~~sensitive species~~ resources would be avoided or minimized during construction.

Id.; Carr Errata at p. 1.

2. Condition 24

Republic suggests the following modification to Condition 24:

> The Applicant shall have an environmental specialist on site during construction activities that may affect sensitive areas~~, as mutually agreed upon between the Applicant and Staff~~, and as shown on the Applicant's final approved construction plan. Sensitive areas include~~, but are not limited to,~~ areas of vegetation clearing, designated wetlands and streams, and locations of threatened or endangered species or their identified habitat. The environmental specialist, as mutually agreed upon between the Applicant and Staff, shall be familiar with water quality protection issues and potential threatened or endangered species of plants and animals that may be encountered during project construction.

Republic proposes this modification to clarify what constitutes "sensitive areas" by specifying the areas that need to be analyzed and protected during construction activities. App. Ex. 13 at p. 18 (Carr Direct). In addition, this modification clarifies that Republic and Staff are to mutually agree upon the environmental specialist selected.

3. Condition 25

Republic suggests the following modification for Condition 25:

> The Applicant shall contact Staff, the ODNR, and the U.S. Fish and Wildlife Service (USFWS) within 24 hours if state or federal listed threatened and endangered species are encountered during construction, operation, or monitoring activities. Activities that could injure, harm, or kill ~~adversely impact~~ the identified plants or animals shall be immediately halted until an appropriate course of action has been agreed upon by the Applicant, Staff and the appropriate agencies. If the Applicant encounters any state or federal listed threatened and endangered plant or animal species prior to construction, the Applicant shall notify Staff of the location and how impacts would be avoided during construction.

These modifications clarify the scope of species to which this condition applies. *Id.* There are various species that may be "listed" but are not actually designated as "threatened or endangered." Republic is committed to protecting all species during construction, operation, and monitoring to the extent it is feasible and possible. *Id.* at pp. 18-19. However, requiring Republic to contact Staff, ODNR, and USFWS every time a "listed" species is encountered is excessive. Limiting this obligation to "threatened and endangered species" properly focuses this obligation on protected species. *Id.* at p. 19. Further, Republic proposes replacing the term "adversely impact" with

"injure, harm, or kill." *Id*. The term "adversely impact" is overbroad and unclear. It appears that the purpose of this provision is to require Republic to cease activities that may result in a "take" of listed threatened or endangered species. *Id.* Therefore, the condition should be modified to clarify that, to the extent activities will not result in any physical harm to listed threatened or endangered species, Republic may continue such activities. *Id*.

4. Condition 26

As addressed above, in its July 2019 Report, Staff recommended Republic obtain a TAL from USFWS detailing a curtailment regime for avoidance of the IB, noting that the operational measures in the TAL would also protect the NLEB. Staff Ex. 1 at p. 30. Staff also recommended that the Applicant adopt the measures in the TAL to protect the IB to the NLEB, including summertime feathering of turbines within specified distances of documented NLEB roost trees. *Id.* Accordingly, Staff proposed the following condition:

> (26) At least 60 days prior to the first turbine becoming operational, the Applicant shall obtain a technical assistance letter for avoidance of Indiana and northern long-eared bat take from the USFWS. The technical assistance letter should include feathering of turbines during periods of risk to these species. Summertime feathering measures identified in the technical assistance letter for the Indiana bat, including feathering within specified distances of documented roost trees, shall also be applied to the northern long-eared bat. The Applicant shall comply with the operational measures detailed within the technical assistance letter until an incidental take permit has been obtained for the project.

After the Staff Report was issued, Republic received a TAL from USFWS. App. Ex 13 at att DC-1 (Carr Direct, TAL). Per USFWS, the TAL sets forth specific measures designed to avoid potential take of *both* the IB and the NLEB. *Id.* at p. 1. The avoidance measures include: feathering turbines (thirty minutes before sunset to thirty minutes after sunrise) within 2.5 miles of the IB average roost at wind speeds below 6.9 meters/second, and at wind speeds below the manufacturer's cut-in-speed at those turbines greater than 2.5 miles from the IB average roost, between May 16 and July 31. *Id*. The specific terms in the TAL were the result of years of

ongoing discussion and coordination between USFWS and Republic, including discussions involving ODNR. App. Ex. 1C at Appx. J, Pt. 19 (online docket) at .pdf pp. 12-15[9] and 16-20[10]; App. Ex. 13 at p. 19 (Carr Direct); App. Ex. 22 at p. 11 (Kerlinger Direct). Those discussions specifically included feathering turbines within 2.5 miles *of the IB roost location(s)*; those discussions did not include applying that same 2.5-mile measure from NLEB roosts. (*See* emails/mtg. notes cited in footnotes 1 and 2.) This was not unexpected or unusual because, as will be addressed below, there is a valid scientific reason for not imposing a 2.5-mile feathering measure for NLEB roosts.

Staff's recommended Condition 26, however, would also require the feathering of turbines within 2.5 miles of documented *NLEB* roost tree(s). That is contrary to the long-standing discussions and understanding between the parties, which understanding is correctly reflected in the TAL. The TAL calls only for summertime feathering as to turbines within the home-range of the IB, but specifically acknowledges that all the measures to be implemented will avoid potential take of *both* species. App. Ex. 13 at DC-1, p. 1 (Carr Direct, TAL) The measures required in the TAL (as well as USFWS's recognition that these measures will protect both species) are not only consistent with the parties' discussions—they are consistent with recognized science. In contrast, Staff's recommended condition, requiring summertime feathering within 2.5 miles of NLEB roost(s), is not in line with the recognized science.

The NLEB is presently listed as a threatened species under the Endangered Species Act. *See* 80 Fed. Reg. 17,974 (Apr. 2, 2015). The USFWS listed the NLEB because of the threat posed to the species due to white-nose syndrome ("WNS"). *Id.* at 17,989. WNS is the main threat to NLEB and has had a devastating impact on bat numbers where the disease occurs: according to

[9] Feb. 2016 email exchange between Republic and USFWS regarding proposed terms of TAL.

[10] Aug. 24, 2016 email from Republic to USFWS, attaching summary of Aug. 17, 2016 meeting, which was attended by USFWS and three representatives of ODNR.

USFWS, 90%–100% mortality has been seen in bats affected by the disease in the eastern United States. *See id.* at 17,980. In areas outside of the scope of WNS, land management and development actions that have been ongoing for centuries (*e.g.*, forest management) have not been shown to have significant negative impacts to the NLEB. *Id.* at 17,990-17,992. Given the significance of WNS to the species, the USFWS states that it would not have listed the NLEB if not for the impact of WNS. *Id.* at 18,024.

Thus, in its 4(d) rulemaking, USFWS concluded that regulating incidental take in areas not affected by WNS is not expected to change the rate at which WNS progresses across the range of the species populations. *See id.*; *see also* 81 Fed. Reg. 1,900, 1,903 (Jan. 14, 2016). As a result, regulating incidental take outside the WNS zone will not influence the future impact of the disease throughout the species' range or the status of the species. *Id.* For these reasons, the prohibition of incidental take from otherwise lawful activities is not necessary or advisable for the protection and recovery of the species. *Id.*

By contrast, within the WNS zone, the USFWS concluded that incidental take is prohibited only if: (a) actions result in the incidental take of the NLEB in hibernacula; (b) actions result in the incidental take of the NLEB by altering a known hibernaculum's entrance or interior environment if the alteration impairs an essential behavioral pattern, including sheltering NLEB; or (c) tree-removal activities result in the incidental take of the NLEB when the activity either occurs within 0.25 mile (0.4 kilometer) of a known hibernaculum, or cuts or destroys known occupied maternity roost trees, or any other trees within a 150-foot (45-meter) radius from the maternity roost tree, during the pup season (June 1 through July 31). *See* 81 Fed. Reg. at 1,902. Any incidental take—within the WNS zone—resulting from otherwise lawful activities outside known hibernacula, other than tree removal, is not prohibited as long as it does not change the NLEB's access to, or quality of, a known hibernaculum for the species. *Id.*

Furthermore, in listing this species and in the final 4(d) rule regarding the NLEB, USFWS expressly excluded from the incidental take prohibition potential take that may occur at wind projects such as Republic. *See* 81 Fed. Reg. at 1,905-1,906. USFWS did so because it concluded that take of NLEB at wind projects was unlikely to occur and, as a result, a take prohibition related to wind-energy facility operations was not necessary to conserve the species. *Id.* Consequently, in developing a technical assistance letter with USFWS, the agency does not require raised cut-in speeds at wind projects to avoid impacts to NLEB.

USFWS's determination to exclude NLEB from the federal take prohibition is supported by the best available scientific information. Many studies have shown that take of NLEB at wind projects is unlikely to occur because the species exhibits specific behavioral traits that cause it to avoid the zone of risk of turbine blades. For example, NLEB tend to stay closer to their habitat and travel shorter distances between their roosts; this may be due to the fact that NLEB are flexible and use a wide range of roosts and hibernacula sites. *See* 81 Fed. Reg. 24,707, 24708. The final 4(d) rule regarding NLEB noted that "when compared to other bat species" NLEB fatalities near wind facilities "comprised less than 1 percent of all documented bat mortalities." 81 Fed. Reg. at 1,905.

Indeed, as Dr. Kerlinger pointed out: the summertime feathering measures for IB in the TAL are based on the IB's home range (2.5 miles) as defined by USFWS guidelines (Section 7 and Section 10 Guidance for Wind Energy Projects); the TAL's term sheet took into consideration the different home-range characteristics of the IB and NLEB; and it would be inappropriate to apply the IB's home range of 2.5 miles to the NLEB. App. Ex. 22 at p. 11 (Kerlinger Direct); Tr. III at p. 758. Republic conducted multiple bat surveys to assess the presence of NLEB and other

species.[11] These studies indicate that NLEB occur in very small numbers at the Project[12], making the risk of take during Project operations very low.

Accordingly, consistent with the recognized science, the TAL from USFWS recommends that the Project feather turbine blades below 6.9 m/s at night from March 15-May 14 and August 1-October 31 throughout the Project, and from May 16-July 31 within 2.5 miles of the *IB* roost to avoid potential take of *both* the IB and the NLEB. (*See* TAL.) Republic has committed to implement these avoidance measures which, as recognized by USFWS, will reduce the risk of taking NLEB during the migration and roosting periods. In short, per the USFWS-issued TAL and the best available scientific information, there is no conservation-based reason to require Republic to feather turbine blades within 2.5 miles of NLEB roosts to avoid potential take of this species during summer.

Further, feathering blades to 6.9 m/s for turbines within 2.5 miles of NLEB roost(s) during summer will impose an additional curtailment period of seventy-seven days, resulting in a significant loss of generation and concomitant revenues. It is not reasonable to impose a measure that will significantly impact generation capability when that measure does not have a corresponding ecological/conservation impact.

For all of the above reasons, Condition 26 should be modified so there is clarity and consistency between its terms and the TAL. App. Ex. 13 at p. 19 (Carr Direct); App. Ex. 22 at p. 11 (Kerlinger Direct). Republic respectfully request that Staff's recommended Condition 26—which was drafted before the actual TAL was issued, is inconsistent with that TAL, and is not supported by recognized science—be replaced with the following:

[11] The bat studies can be found at App. Ex. 1.C at Exs. J [Pts. 14-18 online docket], P, Q, and R.

[12] *See* Copperhead Summer 2016 Bat Survey (Nov. 1, 2016), at p. 5. *Id.* at Ex. J [Pt. 14 online docket]); Copperhead Revised: Summer 2015 Bat Surveys (Aug. 19, 2016) at p. 28. *Id.* at Ex. R.

> At least 60 days prior to the first turbine becoming operational, the Applicant shall obtain a technical assistance letter from the USFWS. The technical assistance letter shall include feathering of turbines during low wind speed conditions at night during periods of risk*, as described in the TAL*. This documentation shall be reviewed by Staff to confirm compliance with this condition. *The Applicant shall comply with the operational measures detailed within the technical assistance letter until an incidental take permit has been obtained for the project.*[13]

5. Condition 29

Republic objects to Condition 29 as currently drafted because it does not define the term "wild animals." App. Ex. 13 at p. 20 (Carr Direct). When drafting Condition 29, Staff Witness Zeto was apparently referring the definition of "wild animals" set forth in ONDR's rules. O.A.C. 1501:31-1-02(AAAAA) defines "wild animals" as "mollusks, crustaceans, aquatic insects, fish, reptiles, amphibians, wild birds, wild quadrupeds, and all other wild mammals." Tr. VI at p. 1370. However, because this definition is so exceptionally broad, it is still unclear the exact scope of Republic's obligations. App. Ex. 13 at p. 20; Carr Errata at p. 1. Further, Condition 29 does not define "significant adverse impact." As such, it is very unclear what species are to be projected and what criteria is being used to determine if an event is "significant." *Id.*

To clarify the exact scope of Republic's obligations, Republic proposes replacing Staff's Condition 29 with the following condition:

> <u>The Applicant will notify Staff, ODNR, and USFWS within 24-48 hours of a significant mortality event as defined within the ODNR's On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio, or as agreed upon with USFWS and ODNR. As soon as possible and no longer than 30 days of the significant mortality event, Applicant will coordinate with ODNR and/or USFWS to review existing data and agree upon additional minimization and mitigation measures that, if needed, can be employed to rectify the significant mortality event. If determined appropriate in consultation</u>

[13] The language in italics represents minor revisions to Republic's proposed Condition No. 26, as set forth in Mr. Carr's written direct testimony. App. Ex. 13 at p. 19 (Carr Direct). The revisions are meant to ensure that the terms of the TAL govern the operations. In addition, the last sentence is the exact last sentence contained in Staff's recommended Condition No. 26. Board precedent permits such revisions. *See Duke Energy Ohio*, Case No. 16-253-GA-BTX, Opinion and Order (Nov. 21, 2019).

> with USFWS/ODNR, operational activities may be modified to minimize risk until an appropriate adaptive management strategy is agreed upon.

App. Ex. 13 at p. 20 (Carr Direct).

Republic's proposed condition uses ODNR's definition of "significant mortality event," which provides clarity regarding the level of impacts. Further, the proposed condition requires coordination with USFWS and ODNR to minimize potential impacts. *Id.* To the extent USFWS or ODNR have concerns regarding a potential impact to a particular species, Republic will work with those agencies to address their concerns. *Id*.

6. Condition 32

Staff has proposed a condition that would impose an absolute bar to Republic from conducting any in-water work in perennial streams from April 15 – June 30. Republic submits that ODNR is best suited to determine when in-water work in perennial streams will actually impact indigenous aquatic species. App. Ex. 13 at p. 21 (Carr Direct). Accordingly, Republic seeks the following minor modifications (shown in underline) to Condition No. 32, which would allow Republic to follow a different course of action if approved by ODNR:

> (32) The Applicant shall conduct no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat, unless coordination with the ODNR allows a different course of action.

Grant Zeto, the Staff member who is responsible for Staff's recommended Condition No. 32, testified at the hearing that Staff would not object to this revision. Tr. Vol. VI at pp. 1374-1375; Staff Ex. 8 at p. 2 (Direct Examination of Grant Zeto ("Zeto Direct")).

7. Conditions 33, 34, and 35

Republic seeks the following minor addition (shown in underline) to Condition Nos. 33, 34, and 35:

> (33) Construction in upland sandpiper preferred nesting habitat types, as defined by ODNR, shall be avoided during the species' nesting period of April 15 through July 31, unless coordination with the ODNR allow a different course of action.
>
> (34) Construction in northern harrier preferred nesting habitat types, as defined by ODNR, shall be avoided during the species' nesting period of May 15 through August 1, unless coordination with the ODNR allow a different course of action.
>
> (35) Construction in loggerhead shrike preferred nesting habitat types**,** as defined by ODNR**,** shall be avoided during the species' nesting period of April 1 through August 1, unless coordination with the ODNR allow a different course of action.

Republic seeks to add this language to clarify the exact habitat area that is to be protected. App. Ex. 13 at p. 21 (Carr Direct). Republic's addition simply confirms that the preferred nesting habitat should be as defined by ODNR. This is consistent with Mr. Zeto's testimony that it was Staff's intent that ODNR's definition of these species' preferred nesting habitat types be applied. Tr. Vol. VI at pp. 1378-1379. Indeed, Mr. Zeto testified he would be agreeable to the modifications proposed by Republic. *Id.* at p. 1379.

8. Condition 36

Republic requests minor modifications to Staff's recommended Condition 36 to reflect the fact that Republic has familiarity with the Project and, therefore, should develop any necessary avoidance/minimization plan in coordination with an ODNR-approved herpetologist. App. Exs. 13 and 15 at pp. 21-22 (Carr Direct). Republic proposes (shown in underlines):

> (36) Prior to construction, if impacts to wetlands or upland habitats adjacent to wetlands are proposed, the Applicant shall obtain an ODNR-approved herpetologist to conduct Blanding's turtle and spotted turtle habitat suitability surveys to determine if suitable habitat exists within the project area. If suitable habitat is determined to be present, the Applicant shall avoid impacts to this habitat by doing one of the following:

(a) Avoid the area determined to be suitable habitat along with an appropriate buffer determined by the ODNR.

(b) Obtain an ODNR-approved herpetologist to conduct a presence/absence survey. If either species is determined to be present, the Applicant shall continue to coordinate with the ODNR to assure that impacts are avoided.

(c) Coordinate with ~~Obtain~~ an ODNR-approved herpetologist to develop and implement an avoidance/minimization plan. Such plan shall be developed by the Applicant.

Mr. Zeto testified that the intent of subsection (c) was for *Republic* to develop and implement the avoidance/minimization plan in coordination with and sign-off of the herpetologist. Tr. Vol VI at p. 1380. Republic's proposed modifications are entirely consistent with Staff's intent and, in fact, makes that intent clear.

Mr. Zeto believes the proposed modification somehow limits the role of the herpetologist. *Id.* at p. 1381. But Mr. Zeto's concern is not well-founded because the proposed modification simply calls for Republic to develop the plan (which, again, is the intent of Staff), while still requiring Republic to coordinate with an ODNR-approved herpetologist in developing and implementing the plan. Such required coordination addresses any concern Mr. Zeto may have that the herpetologist "sign-off" on the plan.

9. Condition 40

Republic asks that the Board not adopt Staff recommended Condition No. 40, which addresses preconstruction eagle use surveys and the development of an Eagle Conservation Plan ("ECP"). Republic believes this condition is unnecessary and overly burdensome because: (1) Republic has already performed adequate preconstruction eagle use surveys in consultation with ODNR and USFWS; (2) the surveys that have been performed demonstrate very low risk of bald eagle collision; and (3) the development of an ECP is not only voluntary, it has not been recommended here. App. Ex. 13 at p. 22 (Carr Direct); App. Ex. 22 at pp. 12-13 (Kerlinger Direct).

10. Condition 42

The Board should reject Staff's proposed Condition 42. App. Ex. 13 at p. 22 (Carr Direct). Condition 42 states that "Applicant shall not construct turbines 10, 38, or 43 as proposed because these do not meet the minimum setback outlined in O.A.C. 4906-4-08(C)(2)." Staff Ex. 1 at p. 67. In this proposed condition, Staff incorrectly relies upon the version of O.A.C. 4906-4-08(C)(2)(b) that took effect on April 26, 2018. Staff Ex. 5 at pp. 9-10 (Direct Examination of Andrew Conway ("Conway Direct")). In its current form, O.A.C. 4906-4-08(C)(2)(b) requires a setback of 1,125 feet from state and federal highways. App. Ex. 13 at p. 22 (Carr Direct). However, this rule took effect after Republic filed its initial Application. *Id.* Further, Board Staff determined that the initial Application was deemed to be complete and in compliance with the prior rules. This completeness determination by Staff means the prior rules govern the initial Application *and* the Amended Application. Therefore, the 1,125 ft. setback from state and federal highways does <u>not</u> apply in this case. Rather, the prior version of O.A.C. 4906-4-08(C)(2)(c) applies, which establishes a 1.1 x total hub height setback from the state or federal highways. *Id.* Turbines 10, 38, and 43 comply with the prior version of O.A.C. 4906-4-08(C)(2)(c) which is a setback sufficient to protect the public.

11. Condition 52

The Board should revise Condition 52 because it is confusing and duplicative of Conditions 56, 57, and 59. The Board should strike the last phrase of Condition 52 as follows:

> The Applicant shall meet all recommended and prescribed Federal Aviation Administration (FAA) and Ohio Department of Transportation (ODOT) Office of Aviation requirements to construct an object that may affect navigable airspace. This includes submitting coordinates and heights for all structures exceeding 199 feet AGL for ODOT Office of Aviation and FAA review prior to construction ~~and the non-penetration of any FAA Part 77 surfaces~~.

According to Staff witness Conway, the last phrase intends to prohibit only the penetration of 14 C.F.R. part 77 surfaces by the thirty-four turbines identified in Conditions 56, 57, and 59. Staff Ex. 5 at p. 22 (Conway Direct). The record shows that all fifty proposed turbines penetrate at least one 14 C.F.R. part 77 surface, but waivers permit penetration by the remaining sixteen turbines. As written, the prohibition also would apply to these sixteen turbines and nullify the waivers. The phrase is inaccurate and confusing. Because the phrase intends to duplicate the prohibitions in Conditions 55, 57, and 59, it is unnecessary and should be stricken to avoid confusion.

12. Condition 56

The Board should reject proposed Condition 56 outright. Proposed Condition 56 states:

> The Applicant shall only construct a Vesta 136 with a tip height of 492 feet at turbine [1],[14] in order to avoid interference with the non-directional beacon runway approach at Seneca County Airport.

The FAA found that T1 exceeded the obstruction standards in 14 C.F.R. 77(a)(2) and (3). To avoid interference with the non-directional beacon ("NDB"), the minimum descent altitude ("MDA") to Seneca County Airport would have to be increased by a mere forty feet. The FAA determined that the proposed forty-foot MDA increase was not excessive and would only have a negligible effect on flight operations. Moreover, the FAA found that the NDB is considered to be an outdated technology and the airport is equipped with more precise landing procedures (IAPs) to meet its needs. Accordingly, it found that the obstruction did not have a "substantial aeronautical impact" and issued a DNH for T1. App. Ex. 29 at att. BMD-1 (Doyle Direct), FAA DNH at p. 11.

[14] The FAA's DNH and the Staff Reports issued in this proceeding have different numerical identifiers for the proposed turbine sites. For ease of reference, Republic Wind will use the FAA identifiers which also are used in the direct testimony of its witnesses. A conversion chart is presented in the October 18, 2019 Supplemental Staff Report at p. 7.

As stated previously, ODOT-OA's jurisdiction is limited to considering the imaginary surfaces listed in R.C. 4561.32 and 14 C.F.R. 77.19. Its jurisdiction does not extend to making determinations under 14 C.F.R. 77.17(a)(1)-(3), and this condition must be rejected for that reason alone.[15]

In the event the Board reviews the condition on its merits, the condition is based on ODOT-OA's position that the FAA did not fully consider the NDB issue. The FAA found that "few aircraft" used the NDB approach because nearly all flights are "straight in." ODOT-OA witness Stains disagreed with this conclusion, claiming that the NDB also is a straight in approach, which would signify that the NDB approach is used frequently. Staff Ex. 3 (Stains Direct) at pp. 12-13. Mr. Stains also relied on the Seneca Airport manager's representation that the NDB approach was frequently used. *Id.* at p. 13. However, the manager did not provide records to show the number of aircraft using the approach. Tr. Vol. VI at pp. 1226-1229 (Cross Examination of Bradley Newman ("Newman Cross")); Tr. Vol. V at p. 1139 (Stains Cross). In addition, ODOT-OA conducted no independent analyses to support that the NDB approach was frequently used. Tr. Vol. V at p.1140 (Stains Cross); Tr. Vol. VI at p. 1276 (Cross Examination of Andrew Conway ("Conway Cross")).

Republic Witness Doyle presented rebuttal testimony to address Mr. Stains' confusion. Mr. Doyle presented detailed radar depictions of the approach to the Seneca Airport developed by the FAA's National Offload Program radar returns, which provides the most accurate flight tracking data available. App. Ex. 41 at p. 2 (Rebuttal Testimony of Benjamin Doyle ("Doyle Rebuttal")). The depictions clarified the FAA's terminology in that aircraft not using the NDB approach (but using GPS) are represented by straight lines or a "straight in" approach. Flights that use the NDB approach are represented by wavy lines with a characteristic "loop," which signifies a procedural

[15] Conditions 57 and 59 should be rejected for this same jurisdictional reason.

turn the aircraft must make when flying a full NDB approach. *Id.* at p. 4; Rev. Rebuttal Att. BMD-1, Figure 1. This extensive and comprehensive analysis shows that **only three** aircraft flew the full NDB approach during an entire year. *Id.* Rev. Rebuttal Att. BMD-1. The study confirms the FAA's findings that few aircraft fly the NDB approach and that the effect of T1, as mitigated, would not have a significant aeronautical impact on air navigation. *Id.* at p. 5.

ODOT-OA also refused to waive the T1 obstruction because the NDB approach allegedly was the only ground-based approach at the Seneca Airport. Staff Ex. 3 at p. 13 (Stains Direct). However, the manager testified that the airport had another ground-based approach on its Runway 6. Tr. VI at p. 1225 (Newman Cross). Moreover, he did not dispute that the NDB technology (which is nothing more than a low band radio signal) was outdated and has been in the process of being phased out at airports across the country. *Id.* at p. 1248. Of the three airports at issue, only Seneca still maintains an NDB. Fostoria Airport has decommissioned its NBD and Sandusky Airport (which was built relatively recently in the 1990s) never had one. *Id.* at p. 1224.

The facts of record support the FAA's determination that Seneca Airport's NDB approach is seldom used, and that the T1 obstruction does not have a substantial aeronautic impact. The Board must adopt the FAA's findings and waive the obstruction standard. ODOT-OA's refusal to waive the obstruction is unlawful because it did not use sound aeronautic principles in determining whether the structure would have a substantial aeronautical impact, as required by R.C. 4561.32. Its refusal also is unreasonable under the facts here. The issue presented is not one of safety considering the FAA's minimal forty-foot height adjustment, but of utility of the Airport's airspace. The NDB will remain at Seneca Airport and still can be used. The only impact of T1 is that ***if*** there is inclement weather below the MDA during one of the three occasions per year that an aircraft wishes to use the NDB approach, the aircraft would be required to use a different

approach. The impact does not impose a substantial aeronautic impact, particularly considering that the aircraft could make use of one of the airport's GPS approaches.

13. Condition 57

Condition 57 provides:

> Provide in the docket, prior to construction proof of a resolution/letter from the Sandusky County Regional Airport authority indicating that it concurs with the construction of turbines [1, 8, 48, 49] as these turbines would otherwise exceed the 14 CFR Part 77.17(a)(2) surface of the Sandusky County Airport.

The Board should reject proposed Condition 57 outright. ODOT-OA agreed with the FAA that T1, T8, T48, and T49 exceeded the section 77.17(a)(2) obstruction standards in relation to the Sandusky Airport. The FAA received no objections from aviation stakeholders regarding these turbines from its circularization process as they relate to the Sandusky Airport. It found no hazard to air navigation and issued a DNH as to each.[16] Republic Witness Doyle explained that the turbines would not have a substantial adverse effect on air navigation, because flight procedures and operations at the airport would remain exactly the same after their construction. Tr. IV at p. 896 (Doyle Cross).

ODOT-OA did not consider the sound aeronautical principles offered by Mr. Doyle and refused to waive the obstruction standards for these turbines. Tr. V at p. 1110 (Stains Cross). Instead, it abdicated its responsibilities to local airport authorities and determined that the obstruction would be waived only if the airport provided written consent. Tr. Vol V. at pp. 1113-1121 (Stains Cross). ODOT-OA's determination violated the standards of R.C. 4561.32.

Not only is ODOT-OA's action unlawful, it is arbitrary and capricious, considering the following:

[16] App Ex. 30 at BMD-1 (Doyle Supp.); FAA DNH at p.12 of 15.

- ODOT-OA waived the section 77.17(a)(1) obstruction standards for all fifty (50) turbines without receiving verbal or written consent from any airport manager or aviation stakeholder. App. Ex. 30 at Att. BDM-1 (Doyle Supp., September 27, 2019 Determination Letter).
- ODOT-OA waived the section 77.17(a)(3) obstruction standards for T2, T3, T5, T6, T33, T34, T36, T39, T40, T41, T42, T43, T46, T47 without the verbal or written consent of any airport manager or aviation stakeholder. *Id.*
- ODOT-OA waived the obstructions created by T44 and T45, without the written or verbal consent of Seneca Airport when the airport manager did not specifically object. *Id.*; Staff Ex. 6 at p. 5 (October 18, 2019 Supplemental Staff Report).
- ODOT-OA accepted the verbal objections of the Seneca Airport manager in refusing to grant waivers to the section 77.17(a)(3) obstruction standards for T12, T14, T15, T16, T21, T23, T24, T25, T27, T28, T29, T30, T31, T32, T35, T37, T38, T50. Tr. Vol. V at pp. 1130-31 (Stains Cross).
- ODOT-OA accepted the written objections of the Fostoria Airport manager in refusing to grant waivers to the section 77.17(a)(3) obstruction standards for T4, T7, T9, T10, T11, T13, T17, T18, T19, T20, T22, and T26. Staff Ex. 3 at p. 9 (Stains Direct).

The Sandusky Airport manager also verbally informed ODOT-OA that the airport had no objections to the heights or locations of the proposed turbines. However, ODOT-OA refused to accept the airport manager's verbal statement. Instead, in order to waive the obstruction standard, it required written consent in the form of a resolution from the airport's board or a signed letter from the board.[17] ODOT-OA has promulgated no rules that require written consent to waive an obstruction standard. No other reason is provided in the record for rejecting the airport manager's consent. It is arbitrary and capricious to reject the Sandusky Airport manager's verbal consent to waive obstruction standards, when ODOT grants some waivers to obstructions without any consent (verbal or written) from any stakeholder, and accepts other airport manager's objections (verbal and written) to deny waivers.

[17] App. Ex. 29 at Att. BMD-1 (Doyle Direct, July 18, 2019, ODOT-OA Determination Letter); Tr. Vol. V at pp. 1112-1116 (Stains Cross).

Accordingly, the Board should adopt the FAA's finding that T1, T8, T48 and T49 do not constitute a hazard to air navigation.

14. Condition 58

a. <u>The Board should reject Staff's proposed Condition 58 because it is inconsistent with the Board's operational noise standard and not a reasonable limitation on operational noise impacts.</u>

Staff's proposed Condition 58 states that "[t]he Applicant shall not use turbine models Siemens Gamesa 18 SG145 (4.5 MW), Nordex N149 (4.5 MW), or Nordex N149 (4.8 MW) at turbine location 37." Staff Ex. 6 at p. 6 (Supp. Staff Report). The Board should reject this condition because it is inconsistent with Board precedent and the Board's rules regarding operational noise standards for wind farm projects. Further, there is no evidence that it is a reasonable limitation on operational noise impacts.

As discussed above, Republic demonstrated that it is fully compliant with the Board's standard of average nighttime sound level + 5 dBA, which equates to a 46 dBA operational sound output limit for the Project. App. Ex. 14 at p. 1 (Direct Supp. Carr). This standard was adopted by Staff in the July 25, 2019 Staff Report. Staff Ex. 1 at p. 37; App. Ex. 18 at p. 2 (Direct Supp. Old). Staff found that the operational sound output limit of 46 dBA was "not likely to generate unacceptable levels of noise for non-participating residents." Staff Ex. 1 at p. 37. Further, in Condition 44, Staff recommends that Republic comply with O.A.C. 4906-4-09(F)(2) which applies the average nighttime sound level + 5 dBA standard. Staff Ex. 1 at pp. 37, 67. Staff Witness Bellamy testified that Condition 44 adequately addresses potential concerns for noise impacts on sensitive receptors. Tr. VII at p. 1476.

RSG performed sound propagation modeling for each of the proposed models at all fifty of the proposed turbine locations. App. Ex. 18 at p. 1 (Direct Supp. Old). After incorporating noise reduced operation (NRO) modes for certain turbines, modeling results showed that none of the

non-participating receptors would experience sound levels in excess of the 46 dBA due to the Project. *Id.*

Although Republic demonstrated that it will comply with the Board's operational noise standard, Staff recommends applying a different and inconsistent sound level limit for one specific turbine location – Turbine 37. *Id* at p. 3. This recommendation is inconsistent with OPSB precedent and is inconsistent with Staff's proposed Condition 44. *Id.* Staff has departed from this precedent based solely on the fact that a limited number of non-participating landowners may have been unware of potential noise impacts during Staff's investigation. Although these non-participating receptors were inadvertently omitted from the RSG's noise report, this does not change the fact that the individuals who reside at these receptors will not experience noise levels that exceed 46 dBA Leq (1 hr) noise limitation which was derived based on Board precedent. *Id.*

Condition 58 is unreasonable because it is not intended to minimize potential adverse noise impacts. Rather, it is intended to completely eliminate all noise impacts for certain non-participating landowners because of purported "due process" concerns. Tr. VII at p. 1480 (Cross Examination of Mark Bellamy) ("Bellamy Cross")). Staff Witness Bellamy admits that Condition 58 does not actually address limiting potential annoyances from noise impacts to non-participating landowners. *Id.* He also admits that Condition 58 is intended to completely eliminate *all* noise impacts for the ten receptors rather than *minimize* the potential noise impacts. *Id.* Despite these facts, Staff witness Bellamy proposed Condition 58 simply because "occupants at the missing receptor locations should have been given information on potential noise impacts much earlier in the process." Staff Ex. 15 at p. 4 (Bellamy Direct).

Nothing in the Board's rules authorizes the Board to apply different operational noise standards merely because non-participating landowners were not notified of potential noise impacts. In fact, if the Board were to adopt Condition 58, it would be implementing a condition

that is inconsistent with O.A.C. 4906-4-09(F)(2), which was adopted under the Board's statutory rulemaking authority of R.C. 4906.03(C). Condition 58 is an unreasonable and excessive limitation on any operational noise impacts that goes beyond the Board's statutory duty to minimize potential adverse impacts. Staff Witnesses Bellamy admits that Staff still would have accepted the 46 dBA operational noise limit if the individuals who reside at the ten receptors were notified of the potential noise impacts earlier. Tr. VII at p. 1495. Further, Staff Witness Bellamy admitted that operational noise limitation of 46 dBA adequately addresses potential concerns for noise impacts on sensitive receptors. Tr. VII at p. 1476. Therefore, the record demonstrates that the 46 dBA noise limitation is an acceptable and reasonable noise limitation for the Project.

b. <u>Assuming, *arguendo*, the Board adopts proposed Condition 58, the condition should be modified to allow Republic to use any of the proposed turbine models so long as Republic can achieve the 41 dBA noise limitation.</u>

To the extent the Board adopts Condition 58 (which it should not do), the Board should modify the condition to state: "The Applicant shall use noise reduced operation modes at turbine location 37 to achieve a 41 dBA noise limitation." App. Ex. 14 at p. 1 (Direct Supp. Carr). Republic Witness Old testified that Staff's recommendation does not consider that NROs could be employed for all of the proposed turbine models to achieve the 41 dBA limitation. App. Ex. 18 at p. 4 (Direct Supp. Old). Because all of the proposed turbines can achieve the 41 dBA limitation, there is no reason eliminate certain turbine options for the Project. *Id.* Further, Staff Witness Bellamy agreed that Republic should be allowed to use all of its proposed turbines if Republic can meet the 41 dBA limitation using NRO modes. Tr. VII at p. 1483.

15. Condition 59

The Board should also reject proposed Condition 59 in its entirety. Condition 59 provides:

> The Applicant shall only construct a turbine where the total height will be below the no effect height of 1,400 feet above mean sea level for turbine locations [T4,

T7, T9, T10, T11, T13, T17, T18, T19, T20, T22, and T26, for Fostoria Airport, and T12, T14, T15, T16, T21, T23, T24, T25, T27, T28, T29, T30, T31, T32, T35, T37, T38, and T50 for Seneca Airport.].

ODOT-OA considered this Project twice and issued determinations by letters of July 18 and September 27, 2019. In its first determination, ODOT-OA determined that only the heights of T1, T8, 48, and 49 should be restricted, as discussed above. *Significantly, it agreed with the FAA and waived the section 77.17(a)(3) obstruction standards for thirty-three turbines* (except T1, which is addressed above). App. Ex. 29 at Att. BDM-1 (Doyle Direct, July 18, 2019 Determination Letter). ODOT-OA reversed its waiver of these obstructions in a second determination for thirty turbines, based upon the unfounded opinion of an airport manager.

ODOT-OA believed it necessary to issue the second determination because the Fostoria Airport manager, Dave Sniffen, notified it of alleged concerns with some turbine heights and locations after the FAA, ODOT-OA, and Staff reviews had been completed.[18] Relying on Mr. Sniffen's statement that twelve turbines would "impact[] the minimum vectoring altitudes" between the ROPPE and SNIFN points at Fostoria Airport,[19] ODOT-OA determined that these twelve turbines should not exceed the 1,400 foot no effect height ("NEH") for section 77.17(a)(3) obstructions (T4, T7, T9, T10, T11, T13, T17, T18, T19, T20, T22, and T26.) ODOT-OA's determination does not address any further communication with Mr. Newman regarding Seneca Airport; however, ODOT-OA also determined that the eighteen turbines that exceeded section 77.17(a)(3) obstruction standards for Seneca Airport approaches also should not exceed the 1400 NEH (T12, T14, T15, T16, T21, T23, T24, T25, T27, T28, T29, T30, T31, T32, T35, T37, T38,

[18] The FAA refused to consider the comments because they were untimely filed. ODOT-OA considered the comments, which led to revised modifications to 30 turbine sites and those modifications have been adopted by Staff. October 18, 2019 Supplemental Staff Report. ODOT's consideration of the comments without FAA review sets a dangerous precedent for ODOT-OA to circumvent the FAA's review process entirely.

[19] App. Ex. 30 at Supp. Att. BMD-1 (Doyle Supp., Sniffen Letter of August 1, 2019).

and T50.)[20] At the hearing, ODOT-OA witness Stains testified that this determination was based upon subsequent verbal communications with Seneca Airport's manager, Mr. Newman, and his desire to "protect" all of Seneca Airport's approaches. Staff Ex. 3 at p. 12 (Stains Direct).

ODOT-OA determined and Staff recommends that the height of these thirty turbines be restricted because they exceeded section 77.17(a)(3) obstruction standards. App. Ex. 30 at Supp. Att. BMD-1 (Doyle Supp., September 27, 2019 Determination Letter). Staff adopted this determination under the same "minimum vectoring altitude" rationale that led to ODOT-OA's determination. Staff Ex. 6 at p. 4 (October 18, 2019 Supplemental Staff Report).

Interestingly, in supplemental testimony, Republic Witness Doyle explained that construction of the thirty turbines would not affect the minimum vectoring altitudes between points ROPPE and SNIFN, *e.g.*, aircraft still could vector to their final landing approach at 2,300 feet, as always. App. Ex. 30 at pp. 4-6 (Doyle Supp.). Significantly, with Mr. Sniffen's theory debunked, ODOT-OA and Staff at hearing abandoned Mr. Sniffen's flawed reasoning regarding minimum vectoring altitudes, and pivoted to concerns regarding whether the FAA's increase to the MDA from 2,400 to 2,500 feet at approximately fifteen to twenty miles from the runway[21] would create safety concerns caused by icing conditions.[22] These concerns are without factual support, as explained by Mr. Doyle and agreed by Staff.

Republic does not dispute that icing conditions can occur at 2,500 feet. However, as Mr. Doyle explained, the 100 foot increase in the MDA would not increase the potential for icing conditions. He testified that icing can occur at any altitude, even at 200 feet AGL. Considering that aircraft also will transition through a number of altitudes, even higher than the MDA, Mr.

[20] App. Ex. 30 at Supp. Att. BMD-1 (Doyle Supp., ODOT-OA Determination Letter of September 27, 2019).

[21] Tr. Vol. IV at p. 870 (Doyle Cross).

[22] To be clear, Mr. Stains inaccurately stated that the 100 foot increase to the MDA for 18 turbines that exceed the section 77.17(3) obstruction standards also affect Seneca Airport's NDB approach. Staff Ex. 3 at p. 11 (Stains Direct). However, the record shows that the NDB approach is affected only by T1. App. Ex. 41 at p. 5 (Doyle Rebuttal).

Doyle concluded that there was no merit to the hypothesis that a 100 foot increase to the minimum obstacle clearance altitude would increase the threat of icing hazards. Tr. Vol. IV at pp. 873, 899 (Doyle Cross). Staff witness Conway agreed, noting that icing conditions also occur at lower altitudes and are dependent upon weather conditions. Tr. Vol. VI at p. 1275 (Conway Cross).

The facts simply do not support ODOT-OA's determination that a 100 foot increase in the MDA increases icing hazards, which occur even at much lower altitudes. Indeed, Staff witness Conway recounted a prior proceeding in which the MDA was raised 100 feet for sixteen wind turbines in the Timber Road IV windfarm. Staff agreed that this increase could "potentially" increase icing hazards, but nevertheless waived the obstruction. Tr. Vol. VI at pp. 1285-1290 (Conway Cross). .

Accordingly, the Board must reject ODOT-OA's determination, not only because it lacks factual support, but also because ODOT-OA has failed to use standards to regulate structures in this proceeding that are uniform with the standards used in other Board proceedings (*e.g.*, *Timber Road IV Wind Farm*) in violation of R.C. 4561.32(A). ODOT-OA's determination also is unlawful because it failed to consider the technical manuals required by R.C, 4561.32(A). The Board should adopt the FAA's DNHs because they comply with all applicable standards.

16. Condition 60

The Board should not adopt Staff's proposed Condition 60. Staff proposed this condition to address its recommended reduction of 0.5 in the average project area ambient nighttime sound level. Staff Ex. 16 at pp. 4-5 (Amended Direct Bellamy). This reduction would result in an average ambient nighttime level of 40.5 Leq. *Id.* at p. 3. Board Staff's decision to reduce the average Project Area ambient nighttime sound level is unjustified and unreasonable. Staff's recommendation is based upon a background sound study that was performed in Republic's proposed transmission line case, which is OPSB Case No. 19-1066-EL-BTX.

The transmission line case is an entirely separate proceeding with a completely separate application and different sound study. The transmission line case involves an entirely different type of major utility facility than the facility at issue in this proceeding. Further, the noise monitoring locations in the transmission line case were selected to determine the discrete transmission line corridor, and not to examine the entire the wind farm Project Area. In addition, there has been no Staff Report issued in the transmission line case, no investigation performed in the transmission line case, and no hearing held in that case.

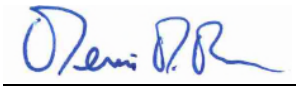
There is no legal basis for modifying or conditioning the Amended Application in this case based on a separate, pending application. Pursuant to R.C.4906.07(C), Staff is required to prepare its report and recommend conditions to the Board based on the application before it. Further, to the extent the Board conditions or modifies a pending certificate application, these conditions or modifications must be based on the application pending before the Board, and not studies or exhibits submitted as part of a separate certificate application. *See*, R.C. 4906.10(A). It would be outside the scope the Board's statutory authority to modify or condition Republic's wind farm certificate application based on the transmission line application. As Staff Witness Bellamy admitted, Staff is not allowed to rely upon information from separate cases during their investigation. Tr. VII at p. 1545. Further, Mr. Bellamy admitted that he believed that the seven monitoring locations selected in the noise study in this case were a good representation of the ambient sound level in the Project Area. *Id.* at p. 1544. Mr. Bellamy also admitted that he believed the seven monitoring locations were sufficient. *Id.* at p. 1545. Based on Mr. Bellamy's testimony, the recommended reduction in an ambient nighttime level to 40.5 Leq is unnecessary to ensure potential noise impacts are reasonably minimized within the Project Area.

V. CONCLUSION

Based on the foregoing, Republic that the Board: (1) issue a Certificate for the Project; and (2) adopt Republic's proposed modifications to Staff's proposed Conditions.

Respectfully submitted on behalf of

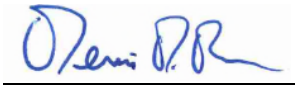
REPUBLIC WIND, LLC



Dylan F. Borchers (0090690)
Devin D. Parram (0082507)
Dane Stinson (0019101)
BRICKER & ECKLER LLP
100 South Third Street
Columbus, OH 43215-4291
Telephone: (614) 227-2300
Facsimile: (614) 227-2390
E-Mail: dborchers@bricker.com
dparram@bricker.com
dstinson@bricker.com

CERTIFICATE OF SERVICE

I hereby certify that the foregoing document was served upon the following parties of record via regular or electronic mail this 23rd day of December, 2019.



Devin D. Parram

cendsley@ofbf.org

lcurtis@ofbf.org

amilam@ofbf.org

mleppla@theoec.org

tdougherty@theoec.org

ctavenor@theoec.org

jvankley@vankleywalker.com

cwalker@vankleywalker.com

dwd@senecapros.org

jclark@senecapros.org

mulligan_mark@co.sandusky.oh.us

jodi.bair@ohioattorneygeneral.gov

dennyh7@frontier.com

mkessler7@gmail.com

william.cole@ohioattorneygeneral.gov

Summary: Text Republic Wind, LLC's Initial Post-Hearing Brief electronically filed by Teresa Orahood on behalf of Devin D. Parram