

THE OHIO POWER SITING BOARD

IN THE MATTER OF THE APPLICATION OF
REPUBLIC WIND, LLC FOR A
CERTIFICATE TO SITE WIND-POWERED
ELECTRIC GENERATION FACILITIES IN
SENECA AND SANDUSKY COUNTIES,
OHIO.

CASE NO. 17-2295-EL-BGN

OPINION, ORDER, AND CERTIFICATE

Entered in the Journal on June 24, 2021

I. SUMMARY

{¶ 1} The Ohio Power Siting Board denies the request for a certificate of environmental compatibility and public need to Republic Wind, LLC for the construction, operation, and maintenance of a proposed wind farm facility.

II. INTRODUCTION

{¶ 2} In this Opinion, Order, and Certificate, the Ohio Power Siting Board (Board), considering the record as developed by the parties, denies the application of Republic Wind, LLC (Republic or Applicant) to construct, maintain, and operate an electric generation facility as proposed in Ohio. With all major electric generation applications, before issuing a certificate, the Board is required to make affirmative findings regarding each of the enumerated factors in R.C. 4906.10(A). When the Board issues a certificate to an applicant, we typically find that the application, as filed, only meets the statutory requirements if certain conditions are met. In these cases, while the Board issues the certificate, the applicant cannot construct and/or operate the facility until each of the conditions is satisfied. Here, however, the Board finds that the application does not satisfy the requirements of R.C. 4906.10(A)(3), requiring a minimal adverse environmental impact, or R.C. 4906.10(A)(6), requiring a project serve the public interest, convenience, and necessity, and that these deficiencies cannot be remedied by additional conditions.

{¶ 3} As referenced in R.C. 4906.10(A)(6), “Public interest, convenience, and necessity” can be looked at through a broad lens. On the one hand, this factor considers the public’s interest in energy generation that ensures continued utility services and the prosperity of the state of Ohio. At the same time, this statutory criterion must also encompass the local public interest, ensuring a process that allows for local citizen input, while taking into account local government opinion and impact to natural resources. In this case, a majority of local government entities intervened in this proceeding or opposed the project, including the Seneca County Commissioners, who intervened and passed a resolution to void any road use agreements previously signed with the Applicant, and the Seneca County Park District, who opposes any construction of the Project within 2.5 miles of any of the Bowen Nature Preserve’s boundaries.

{¶ 4} As discussed in greater detail throughout this Opinion, Order, and Certificate and as pointed out initially by residents at the local public hearing, the project was proposed on a unique terrain consisting of karst formations. Such terrain results in sinkholes, caves, and underground streams replenished by rainwater that wears away the rock and eventually returns to the surface as springs, seeps, or as base flows in streams. In our decision, we ultimately find there is insufficient evidence to determine that this project can be built on such a terrain without adversely affecting the environment and properly serving the public interest. Of particular concern, most residents in the area rely on private wells for potable water and the evidence suggests that disruptions in the karst formations has to the potential to quickly, and detrimentally, effect those wells. These relatively unique and delicate land properties, along with other factors, lead local government officials representing townships, counties, and park districts to oppose the project. Ultimately, the Board agrees and finds the application should be denied.

III. BACKGROUND AND PROCEDURAL PROCESS

{¶ 5} All proceedings before the Board are conducted according to the provisions of R.C. Chapter 4906 and Ohio Adm.Code Chapter 4906-1, et seq.

{¶ 6} Pursuant to R.C. 4906.04, a certificate issued by the Board is required prior to the commencement of construction of a major utility facility. R.C. 4906.04 further provides that a certificate may only be issued pursuant to R.C. Chapter 4906. Pursuant to R.C. 4906.06(B), an application for a certificate is required to be filed with the Board and a copy of the application must be served on the chief executive officer of each municipal corporation and county, as well as the head of each public agency charged with environmental protection or land use planning in the area in which the facility is proposed to be located. Further, pursuant to R.C. 4906.06(C), public notice of such application by newspaper publication is required to be given to persons residing in the municipal corporations and counties in which the facility is proposed to be located.

{¶ 7} Upon receipt of an application in compliance with R.C. 4906.06, the Board is required to schedule a public hearing within a certain time frame and the chairperson is required to cause the application to be investigated and a report submitted to the Board, Applicant, and any person upon request, in accordance with R.C. 4906.07(A) and 4906.07(C).

{¶ 8} Republic Wind, LLC is a person as defined in R.C. 4906.01. Republic is a limited liability company that is a wholly owned subsidiary of Apex Clean Energy (Apex). Apex is a renewable energy company focused on utility-scale solar and wind development. Apex's current operational facilities are located in Illinois, Oklahoma, Texas, and Colorado. Apex's leadership has amassed 19 years of experience and has developed 550-megawatts (MW) of utility-scale renewable generation. (Staff Ex. 1 at 5.)

{¶ 9} Pursuant to R.C. 4906.04, no person shall construct a major utility facility without first having obtained a certificate from the Board. In seeking a certificate, applicants must comply with the filing requirements outlined in R.C. 4906.06, as well as Ohio Adm.Code Chapters 4906-2 and 4906-4.

{¶ 10} On November 13, 2017, Republic filed a pre-application letter with the Board regarding its proposed windfarm with up to 200 MW electric generating capacity in Seneca and Sandusky Counties, Ohio. In its letter, Republic referenced a public information

meeting held on November 29, 2017, at the Veterans of Foreign Wars (VFW) Post in Green Springs, Ohio. A second public information meeting was held on December 11, 2018, prior to the filing of the amended application on December 26, 2018. (Staff Ex. 1 at 5.)

{¶ 11} On February 2, 2018, as amended on March 27, 2018, April 11, 2018, June 22, 2018, December 26, 2018, December 27, 2018, and June 28, 2019, Republic filed an application with the Board for a certificate of environmental compatibility and public need to construct no more than 50 wind turbine generators, each with a nameplate capacity rating of 3.6 MW to 5.7 MW, depending on the final turbine model selected. The total generating capacity of the facility will not exceed 200 MW and annual energy production of approximately 560,000 to 665,000 megawatt hours (MWh). (App. Ex. 13 at 7.)

{¶ 12} On February 2, 2018, in accordance with Ohio Adm.Code 4906-2-21(D), Republic filed three separate motions for a protective order regarding three parts of the application and its supplements. Following the amendments to the application made on December 26, 2018, Republic filed three updated motions for a protective order, intending to extend the reach of the motions filed on February 2, 2018. The administrative law judge (ALJ) granted all three motions for protective treatment at the adjudicatory hearing on November 25, 2019.

{¶ 13} By letter docketed on May 23, 2018, the Board notified Republic that its application was sufficiently complete to permit the Board's Staff (Staff) to commence its review and investigation. The letter directed the Applicant to serve appropriate government officials and public agencies with copies of the complete, certified application and to file proof of service with the Board. The letter also instructed Republic to submit its application fee pursuant to R.C. 4906.06(F) and Ohio Adm.Code 4906-3-12.

{¶ 14} On May 30, 2018, Republic filed its certificate of service of its accepted and complete application, in accordance with the requirements of Ohio Adm.Code 4906-3-07.

{¶ 15} On June 19, 2018, as amended on June 22, 2018, pursuant to Ohio Adm.Code 4906-2-12, several Seneca County residents filed a motion to intervene in this proceeding: Chris and Danielle Zeman; Carol Burkholder; Duane and Deb Hay; Gary and Dawn Hoepf; David Hoover; Jeff Hoover; Greg and Laura Jess; Mike and Tiffany Kessler; Doug and Jennifer Myers; Kevin and Jennifer Oney; Duane Robinson; John and Lisa Wilson; Rita and Jerry Cantu; and Tom and Lori Scheele. By Entry dated August 21, 2018, the ALJ granted the motion to intervene filed by Duane and Deb Hay; Gary and Dawn Hoepf; Greg and Laura Jess; Mike and Tiffany Kessler; Kevin and Jennifer Oney; David P. Hoover; Jeffrey A. Hoover; Doug and Jennifer Myers; Tom and Lori Scheele; and Chris and Danielle Zeman (collectively, “Initial Local Residents”). In the same Entry, the ALJ denied intervention to Carol Burkholder, Rita and Jerry Cantu, Duane Robinson, and John and Lisa Wilson.

{¶ 16} On June 19, 2018, pursuant to Ohio Adm.Code 4906-2-12, the Ohio Farm Bureau Federation (OFBF) filed a motion to intervene in this proceeding. By Entry dated August 21, 2018, the ALJ granted OFBF’s motion to intervene.

{¶ 17} On June 20, 2018, the Board of Trustees of Scipio Township in Seneca County (Scipio Township) filed a motion to intervene. By Entry dated August 21, 2018, the ALJ granted Scipio Township’s motion to intervene in this proceeding.

{¶ 18} On June 21, 2018, the Board of Trustees of Adams Township (Adams Township), the Board of Trustees of Reed Township (Reed Township), and the Board of Trustees of Pleasant Township (Pleasant Township), all located in Seneca County, filed separate notices of intervention. By Entry dated August 21, 2018, the ALJ granted Adams Township, Reed Township, and Pleasant Township intervention in this proceeding. On January 25, 2019, Pleasant Township filed notice indicating it was withdrawing its notice of intervention following Republic’s amendments to the application.

{¶ 19} Republic filed proof that it submitted its application fee on June 25, 2018.

{¶ 20} On June 28, 2018, as amended on August 14, 2018, and August 17, 2018, the Board of Trustees of York Township in Sandusky County (York Township) filed a motion to intervene. By Entry dated August 21, 2018, the ALJ granted York Township's motion to intervene in this proceeding.

{¶ 21} By Entry issued July 18, 2018, the ALJ established the procedural schedule for this proceeding, scheduling the local public hearing for Tuesday, October 2, 2018. The adjudicatory hearing was scheduled for Monday, October 15, 2018.

{¶ 22} On August 17, 2018, the following Seneca and Sandusky County residents filed a motion to intervene: Joseph and Diane Anderson; Denise Bell; Aaron and Carrie Boes; Richard and Linda Bollenbacher; Robert and Mary Chappell; Keith and Jane Fox; Thomas and Kathleen Fries; Leslie and Dennis Hackenburg; Jeffrey and DeeAnne Hamilton; Allen and Mary Hasselbach; Ethan and Crystal Hoepf; Jason and Michelle Hoepf; Taylor Hoepf; Kenneth and Debra Hossler; Leonard and Beverly Kubitz; Randall and Louise Ladd; Gary and Michelle Miller; Steven and Kelley Miller; Kim Mitchell; Charles and Linda Morsher; Patricia Motry; Steven and Linda Mulligan; Linda Niederkohr; Nicholas and Michelle Reiter; Elaine Schultz; James and Victoria Seliga; Jason Smith; Eugene and JoAnn Smith; James and Elaine Steinmetz; Herman and Patricia Studer; Christine Vogt; Robert Voska; Mark Weber and Cindra Riley; J. Dian West Executor of the Estate of Ellen A. Gibson; Charles and Rhonda Weyer; and Ann Wright (collectively, "Additional Local Residents"). By Entry dated February 15, 2019, the ALJ granted the motion to intervene with the exception of Keith and Jane Fox; Randall and Louise Ladd; Jason Smith; Robert Voska; and J. Dian West, Executor of the Estate of Ellen A. Gibson, whose motions to intervene were denied.¹

¹ With the exception of pro se intervenors Dennis Hackenburg and Mike and Tiffany Kessler, "Initial Local Residents" and "Additional Local Residents" granted intervention shall be subsequently referred to as "Local Residents".

{¶ 23} On August 23, 2018, the Ohio Environmental Council (OEC) and Environmental Defense Fund (EDF) jointly filed a motion to intervene in this proceeding. Intervention was granted pursuant to the Entry of February 15, 2019. On October 16, 2020, EDF filed a notice of withdrawal from this proceeding.

{¶ 24} On August 29, 2018, Republic filed a motion to suspend the procedural schedule and a stay of discovery due to anticipated amendments to its application. The motion was unopposed by all parties. The ALJ granted the motion to suspend the procedural schedule and stay discovery by Entry issued on September 4, 2018.

{¶ 25} On September 10, 2018, as amended on September 19, 2018, and January 25, 2019, the Board of County Commissioners of Seneca County (Seneca County Commission) filed a motion to intervene. The motion was granted pursuant to the Entry dated February 15, 2019.

{¶ 26} As stated above, on December 26, 2018, Republic filed its amended application. Also, on December 26, 2018, Republic filed a motion for a procedural schedule, requesting that hearings be rescheduled within 90 days from the date of filing of the amended application pursuant to Ohio Adm.Code 4906-3-11(A)(4)(b). In support of its motion for a procedural schedule, Republic stated that Staff would have sufficient time to conduct its necessary investigation. On January 10, 2019, Staff filed a memorandum contra Republic's motion for a procedural schedule, arguing that the application amendment is subject to the same completeness standard as its original application. According to Staff, the modifications proposed by Republic required additional investigation and the necessary analysis could not be completed within 90 days.

{¶ 27} By Entry issued February 15, 2019, the ALJ granted in part and denied in part Republic's motion. Specifically, the ALJ determined that a new completeness review was not automatically required subsequent to the filing of the amended application. However, the ALJ found that a waiver of the 90-day hearing deadline set forth in Ohio Adm.Code 4906-3-11(A) should be granted pursuant to Ohio Adm.Code 4906-3-01(B). The

ALJ set the procedural schedule going forward, planning a local public hearing for Tuesday, May 14, 2019, scheduling a prehearing conference for Monday, June 3, 2019, and scheduling the adjudicatory hearing for Monday, June 10, 2019.

{¶ 28} On January 29, 2019, the Seneca County Park District (Park District) filed a motion to intervene, claiming that it had extensive interest in the proposed facility given the proposed project's proximity to nature preserves maintained by the Park District. The motion was granted pursuant to the Entry of February 15, 2019.

{¶ 29} On March 4, 2019, the Local Residents filed a motion for a continuance of the adjudicatory hearing date. Specifically, the Local Residents requested that the adjudicatory hearing commence on June 25, 2019, arguing that it was necessary to enable the Local Residents' counsel to participate in the adjudicatory hearing due to scheduling conflicts. Pursuant to the Entry dated March 13, 2019, the motion was granted in part and denied in part. The ALJ adjusted the procedural schedule, moving the prehearing conference to Tuesday, May 23, 2019, and scheduling the adjudicatory hearing for Monday, June 3, 2019.

{¶ 30} On March 20, 2019, several Seneca and Sandusky County residents (collectively, "Subsequent Local Residents") filed a motion to intervene in the proceeding. By Entry issued April 23, 2019, the ALJ denied the Subsequent Local Residents' motion to intervene, noting that many of the arguments set forth by in the motion were identical in nature to others who were already granted intervention. The ALJ also noted that the Subsequent Local Residents failed to provide addresses or relevant maps to support their argument.

{¶ 31} On April 26, 2019, Republic and Staff filed a joint motion to suspend the procedural schedule, stating that Staff's report of investigation (Staff Report or Staff Ex. 1) deadline should be extended for 90 days to allow additional time for Republic to provide Staff with information needed to complete the Staff Report. The joint motion to suspend the procedural schedule was granted pursuant to the Entry dated April 26, 2019.

{¶ 32} On July 25, 2019, Staff filed its Staff Report pursuant to R.C. 4906.07(C).

{¶ 33} By Entry issued August 19, 2019, the procedural schedule was modified, setting the local public hearing for September 12, 2019, and scheduling the adjudicatory hearing for October 2, 2019.

{¶ 34} On September 4, 2019, Seneca County Commission, Adams Township, Reed Township, Scipio Township (collectively, "Local Government Entities") and the Park District jointly filed a motion to continue the adjudicatory hearing scheduled for October 2, 2019, and the previously established deadlines for the submission of testimony for a minimum of 60 days, stating that a late change in counsel led to them needing more time to prepare. By Entry dated September 12, 2019, the ALJ granted in part and denied in part the motion for continuance, rescheduling the adjudicatory hearing for November 4, 2019, in order to give the intervenors' counsel time to prepare.

{¶ 35} The local public hearing was conducted as scheduled on September 12, 2019 in Tiffin, Ohio.

{¶ 36} On October 16, 2019, pursuant to Ohio Adm.Code 4906-3-03(B)(2), Republic filed notice that it mailed letters to affected property owners and tenants within the project area informing them of the proposed project.

{¶ 37} On October 18, 2019, Staff filed a supplement to the Staff Report.

{¶ 38} The adjudicatory hearing commenced on November 4, 2019, and ended on November 25, 2019.

{¶ 39} On December 23, 2019, the Park District, Local Government Entities, Staff, Republic, OEC, EDF, and Local Residents filed post-hearing briefs.

{¶ 40} Staff, OEC, EDF, Republic, and Local Residents filed reply briefs on January 13, 2020.

{¶ 41} On March 11, 2020, Staff filed a letter (Modified Determination Letter) from the Ohio Department of Transportation (ODOT) Office of Aviation in this docket. In the letter, ODOT stated that it is modifying its earlier determination regarding the Project, which it issued on September 27, 2019, because of a court decision, from the Franklin County Court of Common Pleas (Franklin County Court), *One Energy Enterprises LLC, et al., v. Ohio Dept. of Transp.*, Franklin C.P. No. 17 CV 005513 (Mar 2, 2020) (*One Energy Decision*).

{¶ 42} On March 12, 2020, Republic filed a notice of additional authority, attaching a copy of the *One Energy Decision*. In the notice, Republic noted that at the time it filed its reply brief, One Energy Enterprises LLC's (One Energy) motion for partial summary judgment was pending before the Franklin County Court regarding a complaint One Energy filed against ODOT. According to Republic, the Franklin County Court decision granted summary judgment as to one count of One Energy's complaint.

{¶ 43} By Entry dated April 14, 2020, the ALJ scheduled a telephonic conference for April 17, 2020, to discuss the potential impacts of the *One Energy Decision* in this proceeding with the parties.

{¶ 44} On May 4, 2020, Staff filed a motion to reopen the proceeding. Specifically, Staff requested the reopening of this proceeding for the limited purpose of permitting the parties to supplement the record with additional aviation-related evidence via the filing of an updated Staff Report. Attached to its motion was a Second Supplement to the Staff Report of Investigation, which addressed modified conditions. According to Staff, ODOT had previously issued two letters to Staff. The first letter was issued on July 18, 2019, following the receipt of the Federal Aviation Administration (FAA) determination of no hazard. Staff explained that relying on ODOT and FAA, it recommended in the Staff Report that certain aviation-related conditions become part of any certificate issued for the proposed facility. The second ODOT letter was issued in on September 27, 2019, and indicated that the proposed wind turbines will be obstructions consistent with 14 C.F.R. Part 77 and noting that the FAA has determined that they will have an adverse effect on the safe

and efficient use of navigable airspace by aircraft. Staff explained that the need for ODOT's September 2019 letter was prompted by concerns raised by Fostoria Metropolitan Airport and after receiving clarification of the objections regarding the wind turbines from the Seneca County Airport. Staff noted that following its receipt of ODOT's September 2019 letter, it issued a Supplement to the Staff Report recommending that two additional conditions become part of the any certificate issued in this proceeding.

{¶ 45} According to Staff, ODOT, in its Modified Determination Letter to the Board, stated that it was modifying its earlier recommendations due to the *One Energy Decision*. Specifically, ODOT indicated that it now believes that none of the proposed wind turbine structures impact the surfaces subject to ODOT's jurisdiction for the purpose of making a permitting decision according to R.C. 4561.32(A).

{¶ 46} Staff stated that ODOT's Modified Determination Letter, in combination with the *One Energy Decision*, necessitated the reopening of the proceeding as both did not exist at the time of hearing and when the briefs were initially filed in this case.

{¶ 47} Staff highlighted that aviation issues were previously addressed in the Staff Report and Supplement in Conditions 52, 56, 57, and 59. Staff also pointed out that its witness Conway and ODOT witness Stains provided prefiled testimony regarding aviation issues. According to Staff, the *One Energy Decision* and the ODOT Modified Determination Letter, which were both issued after the conclusion of the hearing and the filing of briefs in this case, directly alter the above-mentioned conditions and conclusions as they relate to Staff's investigation.

{¶ 48} On May 11, 2020, the Park District and Local Government Entities filed a memorandum contra Staff's motion.

{¶ 49} On May 19, 2020, Republic filed a motion for the Commission to take administrative notice of ODOT's Modified Determination Letter, which was filed with the

Board on March 11, 2020. On the same day, Republic also filed a memorandum contra Staff's motion to reopen the proceeding.

{¶ 50} On June 8, 2020, Local Residents filed a motion to reopen the hearing due to newly discovered evidence regarding bald eagles.

{¶ 51} On June 19, 2020, Republic filed a memorandum contra Local Residents' motion.

{¶ 52} Consistent with the Entry of August 4, 2020, the motions to reopen the record in this proceeding filed by Staff on May 4, 2020, and by Local Residents on June 8, 2020, were granted for the limited purpose of updating the record on two narrow issues. First the ALJ directed parties to present updated evidence as a result of the issuance of the *One Energy Decision*. Second, the ALJ directed the parties to present evidence regarding the significance of the half-mean, inter-nest buffer distance proposed by the United States Fish and Wildlife Service (USFWS), the existence of a newly discovered bald eagle nest referred to as the N&F Wildlife Nest (N&F Nest), the N&F Nest's proximity to the proposed turbine locations, as well as the ramifications of the N&F Nest with respect to the half-mean inter-nest buffer distance proposed by USFWS.

{¶ 53} Regarding Republic's motion for the Commission to take administrative notice of ODOT's Modified Determination Letter, which was filed with the Board on March 11, 2020, the ALJ found the motion to be moot based on its determination that Staff was required to present a witness sponsoring the Modified Determination Letter.

{¶ 54} Pursuant to the Entry of September 1, 2020, a supplemental evidentiary hearing was held in this matter on September 30, 2020, with respect to the issues set forth in the Entry of August 4, 2020. A supplemental briefing schedule was established in accordance with the Entry of October 1, 2020. Pursuant to the October 1, 2020 Entry, the ALJ directed the parties to attach copies of their initial briefs and reply briefs, filed on

December 23, 2019 and January 13, 2020, respectively, to the supplemental briefs filed after the supplemental evidentiary hearing.²

{¶ 55} On November 5, 2020, the Park District and Local Government Entities filed a joint supplemental initial brief in opposition to Republic's application. On November 6, 2020, supplemental initial briefs were filed by Republic, Local Residents, and Staff. On November 13, 2020, supplemental reply briefs were filed by the Applicant, Local Residents, and Staff.

IV. PROJECT DESCRIPTION

{¶ 56} Republic proposes to construct a wind turbine facility (the Project) 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 50 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 of the Project will not exceed 200 MW and the annual energy production will be approximately 560,000 to 665,000 MWh. (App. Ex. 13 at 1-7.) Republic proposes to use either Vestas V136 (3.6 MW), Vestas V150 (4.2 MW) (V150), Siemens SG145 (4.5 MW), or Nordex N149 (4.5 MW) wind turbines. In addition, the 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 10 sites. (Staff Ex. 1 at 6.) The Project also consists of access roads, electrical interconnection, construction staging areas, an operations and maintenance facility, up to two meteorological towers, and the substation.

² A supplemental briefing schedule was established pursuant to the October 1, 2020. The entry also directed that the parties should attach a copy of their December 23, 2019 Initial Briefs to the November 6, 2020 Supplemental Initial Briefs and a copy of their January 13, 2020 Reply Briefs to their November 13, 2020 Supplemental Reply Briefs. Supplemental initial briefs and supplemental reply briefs filed by Local Residents, Local Government Entities, and Park District indicate that no changes were made to the initial briefs and/or reply briefs of these parties. Republic and Staff did indicate changes to their initial briefs and reply briefs, which, in some instances, altered the page numbering in those briefs from what was filed in December 2019 and January 2020. Thus, citations herein to the initial and reply briefs of either Republic or Staff will reference the page numbers of those briefs attached to the supplemental initial briefs and supplemental reply briefs filed by those parties.

The total proposed project area is 24,000 acres. Approximately 588.5 acres of land will be disturbed during construction. Much of this disturbance will be temporary and subject to restoration activities at the end of construction. The permanent operating footprint of the facility will occupy a much smaller area, approximately 50.5 acres, or approximately 0.2 percent of the total leased lands. (App. Ex. 13 at 7; App. Ex. 1C at 7).

V. CERTIFICATION CRITERIA

{¶ 57} 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) 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, 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 the facility will serve the interests of electric system economy and reliability;
- (5) The facility will comply with R.C. Chapters 3704, 3734, and 6111, as well as all rules and standards adopted under those chapters and under R.C. 4561.32;

- (6) The facility will serve the public interest, convenience, and necessity;
- (7) The impact of the facility on the viability as agricultural land or any land in an existing agricultural district established under R.C. Chapter 929 that is located within the site and alternative site of the proposed major facility; and
- (8) The facility incorporates maximum feasible water conservation practices as determined by the Board, considering available technology and the nature and economics of various alternatives.

VI. STAFF REPORT

{¶ 58} Consistent with R.C. 4906.07, Staff completed its investigation of the application and submitted the Staff Report. In accordance with the Staff Report, the Supplement to the Staff Report, and the Second Supplement to the Staff Report, Staff recommended that in total 61 general, socioeconomic, ecological, public service, facilities, safety, air, water, solid waste, and aviation conditions be made part of any certificate issued by the Board for the Project (Staff Ex. 1 at 61-69; Supplement to the Staff Report at 6; Staff Second Supplement to the Staff Report at 4-6). In its Second Supplement to the Staff Report, Staff subsequently recommended that three conditions pertaining to aviation be removed (Staff Ex. 19 at 6). Staff reiterates in its briefs that any certificate issued by the Board to Republic should be conditioned by adopting all of the conditions set forth in the Staff Report, Supplement to the Staff Report, and Staff's supporting testimony (Staff Initial Br. at 28).

{¶ 59} In their briefs, Republic, Local Residents, Local Government Entities, the Park District, and OEC propose that the Board either adopt, amend, or delete certain conditions recommended by Staff.

{¶ 60} Based on its review of the application and the record in this case, the Board ultimately determines that Republic has not met its burden of proof relative to the requirements of R.C. 4906.10(A)(3) and (A)(6) for the reasons set forth below and finds the application should be denied. Therefore, the Board concludes that any consideration of issues raised by the parties relative to the disputed Staff conditions, including those related to eagles, are unnecessary and they will not be addressed at this time.

VII. SUMMARY OF EVIDENCE

{¶ 61} The Board has reviewed all of the evidence presented in this case. This includes evidence presented by the parties at the evidentiary hearing as well as testimony from the local public hearing and comments submitted to the docket. Any evidence not specifically addressed herein has nevertheless been considered and weighed by the Board in reaching its final determination.

A. Local Public Hearing and Comments

{¶ 62} As noted above, the Board held a local public hearing in this matter on September 12, 2019, in Tiffin, Ohio. Other individuals attending the local public hearing submitted written statements for the Board's consideration. In addition, for those who did not wish to testify, the ALJs offered petitions for people to sign, either for or against the Project. Additionally, since the opening of this docket, there have been nearly 700 document records of comments filed in the case docket.³ Witnesses at the local public hearing testified both in support of the Project and in opposition, although a vast majority of those testifying were opposed to the Project. Specifically, the ALJs heard sworn testimony from 48 witnesses with 35 witnesses opposed to the Project and 13 witnesses expressing support. The concerns

³ The comments listed in the public comments section of the docket card by date may include comments filed by more than one commenter, one commenter who is filing a correspondence to each of the Board members, or a person or entity may file more than one correspondence in the docket. Accordingly, the document record of comments does not correlate directly with the number of persons submitting comments.

raised at the local public hearing and in the public comments may generally be summarized to include the following matters: issues emanating from the karst formations in the project area; flooding and contamination of drinking water; potential negative effects on local bird populations; turbine blade shear; shadow flicker; view obstructions due to the turbines; setback distances of turbines; and noise caused by the turbines.

{¶ 63} Witnesses testified regarding the existing karst formation in the project area. It was represented that Bellevue has the largest sinkholes in Ohio by perimeter area and volume. Various issues surrounding karst were raised, including the potential for sinkholes, flooding, subsiding of land, and negative impact on groundwater flow. Several of those who testified also emphasized the large area of the karst formations throughout Seneca County, with a number of 600-foot turbines in the proposed Project being sited in these areas. Others raised concerns about impact of the proposed Project on aquifers in the karst formations that flow to Lake Erie, citing the potential for chemical runoff. Witnesses voiced opposition to Republic's proposed remedy of sinking pilings into the ground, which they believe could further damage the karst formations. (Public Hearing Tr. at 30, 31, 34, 35, 37, 38, 41-44, 52, 53, 75, 91, 92, 95, 96, 122, 123, 139, 162-171, 177-180, 206-208, 211, 215, 233, 234, 250, 251.) One witness indicated that he believes that the Applicant had done the proper analysis and that the proposed foundations will not cause any karst and sinkhole issues (Public Hearing Tr. at 123).

{¶ 64} Related to the concerns regarding karst formations, residents raised concerns pertaining to potential damage to or contamination of existing private wells. According to some witnesses, wind turbines in the project area have the potential to negatively impact water supply from wells, which many local residences and businesses use as their sole water supply. Several individuals cited incidences in which wells in other areas had been adversely impacted by wind turbines, referring to passageways formed in karst terrain allowing for high connectivity between land surface and the water table. Of concern to others was the permanent nature of damage to wells and aquifer systems should such

damage occur. (Public Hearing Tr. I at 13, 31, 34, 35, 38, 40, 41, 75, 91, 92, 95, 96, 139, 148, 165-170, 180, 206-208, 211, 250, 251.)

{¶ 65} Another concern expressed at the public hearing involves the decommissioning of the facility. According to the testimony, other wind facilities throughout the United States that have reached the end of their useful lives remain standing despite promises by companies to remove the turbines. (Public Hearing Tr. at 12, 13.)

{¶ 66} Witnesses expressed concern regarding the proximity of the Project to parks and the Bowen Nature Preserve and the adverse effect on the rural nature of the area and quality of life, and its negative impact on the views (Public Hearing Tr. at 29, 42, 46, 137, 139, 140, 147, 152-154). The Bowen Nature Preserve, which is part of the Park District, is a 58-acre nature preserve with trails, grasslands, wildlife and approximately six acres of woodland (Seneca Park District Ex. 3 at 2). Witnesses raised concerns surrounding the negative impacts of the proposed facility on local bird and bat populations. Specifically, people stated that turbines can kill both endangered and non-endangered species of birds and bats, including bald eagles, which are beneficial to the ecosystem and area farmers. According to one local resident, bats assist in disrupting agricultural pests, pollinating plants, and disbursing seeds. Others specified that Seneca County is a migration path for birds. Another concern related to the impact on bird populations is a decline in bird watching opportunity, which brings tourists to the area. In addition to these issues, some in attendance stated that, although Republic estimates the number of birds and bats that will be killed by the Project, there is no way to state with certainty what the actual impact will be. (Public Hearing Tr. at 13, 14, 18-20, 24, 30, 42, 43, 97, 109, 150-154, 212, 243, 244, 251, 252.) One witness indicated that, having visited another wind facility in the state of Ohio, he did not observe any dead bird or animal carcasses near any turbines. Another witness contended that the reported number of bird deaths has been overstated by opponents (Public Hearing Tr. at 62, 193).

{¶ 67} Witnesses voiced concern over potential loss in property value and the negative impact on existing lifestyle should the Project move forward. Some residents questioned Republic's contention that nearby wind turbines have no significant negative impact on property values. Others cited studies that arrived at contrary conclusions in which real estate appraisers found a reduction in value of property in the vicinity of wind facilities. One individual spoke to the impact decreased property value would have on the Park District's funding. Another local resident testified that, in addition to the effect of people not wanting to live near wind turbines, there is the possibility that wind turbines could cause the land to be wetter by disrupting the subsurface water table which in turn could cause the agricultural land to lose value. Concern was also expressed regarding the potential damage to rural roads due to the large machinery used in the transport of the wind turbines. (Public Hearing Tr. at 18, 19, 75, 77, 81, 86, 108, 109, 144, 147 156, 157, 181, 238, 239, 246, 248, 282.)

{¶ 68} Some witnesses raised the issue of sound emitting from the turbines and the potential harmful effects on the health and wellbeing of nearby residents. Specifically, they expressed concern that inaudible, low-frequency sound such as that emitted from turbines, which many referred to as "infrasound," can cause various adverse health effects in humans. Several local residents challenged Republic's conclusions that infrasound will not have adverse impacts on health. Of particular concern was the belief that infrasound could travel beyond the project area. (Public Hearing Tr. at 20, 21, 26, 27, 52, 64-72, 75, 81, 84-87, 95, 108, 135, 136, 141, 143, 144, 156, 206, 210-212, 215, 226-231, 241, 242, 254-256, 282-284.) In addition to the alleged potential health consequences, some individuals fear that a constant audible hum coming from the facility would disrupt the calm nature of the area (Public Hearing Tr. at 29). Witnesses in support of the Project stated that having visited other wind facilities in the state of Ohio and elsewhere, they do not find the noise to be as disruptive as others believed (Public Hearing Tr. at 62, 183, 202, 203, 218).

{¶ 69} Witnesses focused on public safety concerns, including the possibility of wind turbine blade failure and debris thrown long distances, and the possibility of ice

throws, which could harm property or people in the project area (Public Hearing Tr. at 23, 55, 56, 58, 59, 92, 99, 211, 215, 225, 227, 232, 233, 244, 245). A number of witnesses discussed their concerns regarding the negative effects of shadow flicker resulting from the proposed Project (Public Hearing Tr. at 30, 52, 62, 75, 81, 87, 95, 108, 136, 156, 206, 210, 215, 229, 242, 284).

{¶ 70} Of concern to some individuals testifying at the public hearing were the setback requirements for the Project and proximity to occupied structures. Additionally, testimony was provided regarding turbine accidents that have occurred in the state of Ohio at other wind farm projects. (Public Hearing Tr. at 92-95; 253, 254.) Other witness testified to the possibility of a turbine toppling and damaging property and threatening safety. Some compared setback requirements in the state of Ohio to setback requirements and proposed setback requirements of other state and local jurisdictions where greater setbacks are required. Several referenced insufficient setbacks as it relates to sound impacting those around it. Most of those who testified regarding setback insufficiencies gave special attention to homes in or near the project area. (Public Hearing Tr. at 21-23, 36, 41, 42, 51, 52, 55-57, 84-87, 99, 107, 136-138, 142, 200, 211, 230, 232, 233, 244, 282, 283.) One individual in favor of the Project stated that there are several other tall structures in the area such as cell towers and electric towers, some of which have no specified setback (Public Hearing Tr. at 199, 200).

{¶ 71} Witnesses at the public hearing spoke of their concerns regarding impacts on aviation. The biggest concern among those testifying was the impact on LifeFlight and its ability to land in case of medical emergencies in the project area given its proximity from hospitals with trauma centers. Concern was also expressed for the possibility that the turbines could cause major fires within the surrounding fields and its impact on crop dusting. One witness expressed concern regarding the adverse effect of turbines on weather radar interference (Public Hearing Tr. 28, 75, 88, 99, 108, 142, 144, 212, 221, 242, 243, 252, 253, 262, 273-275, 279, 280).

{¶ 72} Other witnesses were concerned about the impact on aviation traffic coming in and out of Seneca County Airport. According to one person opposed to the Project, wind turbines in the project area could reduce the number of flights in and out of Seneca County Airport, which would in turn reduce funding for the airport, which is tied to the number of flights per year. (Public Hearing Tr. at 75, 88, 127-130, 144.)

{¶ 73} Some witnesses focused on the economic benefits of the proposed project, including the additional jobs and tax revenue which would benefit the school system and libraries and communities (Public Hearing Tr. at 105, 132, 133, 183, 196, 198, 200, 217, 279). Many of the witnesses in support of the Project believe that they should be able to decide how to use their land, including the harvesting of the wind to derive income (Public Hearing Tr. at 122, 196, 199, 217, 280, 290).

{¶ 74} Others questioned the actual economic benefit resulting from the proposed Project and expressed concern over the infringement of people's rights just for the sake of increasing tax revenue. They do not consider the proposed windfarm as a good way to preserve farmland for future generations. (Public Hearing Tr. at 35, 89, 108, 116, 117, 130).

{¶ 75} Among those who support the proposed project, witnesses testified as to the benefits of adding wind energy to diversify the grid. These individuals spoke to the benefit of having various generation sources. Relatedly, several of those who testified emphasized the clean nature of wind energy, which would make the electric grid less reliant on fossil fuels, which would have positive impacts on air quality and the global climate. (Public Hearing Tr. at 105, 132, 133, 185, 190-192, 200.)

{¶ 76} Witnesses testified regarding the economic viability of a wind facility compared to other forms of electricity generation and the lack of benefit of a wind facility when performing a cost/benefit comparison. Specific concerns include wind facilities not being viable without government subsidies, an actual rise in electricity prices for customers in the area, and a need for other sources of electricity generation including coal, natural gas, or nuclear energy to serve as a backup. Relatedly, some residents worried that a system

more reliant on wind could lead to blackouts if a wind facility goes offline. (Public Hearing Tr. at 15, 50, 51, 82-84, 98, 110, 111.) Others questioned the need for the Project and the need for the addition of wind energy into the grid (Public Hearing Tr. at 234-236).

B. Statutory Criteria

{¶ 77} As discussed, in order for the Board to issue a certificate to construct a major utility facility, the Board must make findings and determinations regarding each of the relevant factors outlined in R.C. 4906.10(A). As noted in the Introduction, we ultimately determine that Republic's application does not satisfy the statutory requirements of R.C. 4906.10(A)(3) and (A)(6). Accordingly, the Board will address both of those factors, reviewing the arguments of the parties, and explaining the Board's reasoning for its determinations as it relates to R.C. 4906.10(A)(3) and (A)(6).

1. PUBLIC INTEREST, CONVENIENCE, AND NECESSITY

{¶ 78} Pursuant to R.C. 4906.10(A)(6), the Board must determine that the facility will serve the public interest, convenience, and necessity.

a. Arguments of the Parties

{¶ 79} Republic believes that the Project serves the public interest, convenience, and necessity. First, Republic contends the Project will benefit the local economy and landowners beyond the provision of safe, reliable, and clean energy. Republic notes over half of the public comments submitted to the docket express support for the Project, emphasizing 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 9). In terms of economic growth, Republic utilized a Jobs, Economic and Development Impact model to forecast an increase in local tax revenues attributable to the Project of between \$1.2 million and \$1.8 million annually (Tr. I at 130, 131; App. Ex. 13 at 16). Republic further states that the lease payments made to participating landowners will allow local landowners to maintain the rural and/or agricultural nature of their property

while passively enjoying a new and predictable source of income (Tr. I at 126; App. Ex. 16 at 3; App. Ex. 1H at 25). In addition to direct benefits, Republic states it has also engaged in larger community sponsorship and support, including supporting community events such as the Seneca County Fair and Junior Fair (App. Ex. 13 at 8).

{¶ 80} Republic contends the Project will not negatively affect the value or marketability of the rural residential and agricultural properties in and around the Project footprint, pointing to a market impact study and testimony from its witness MaRous. Republic explains that 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 a value impact on the sale prices of homes proximate to those turbines. Republic further notes that Mr. MaRous was not aware of any peer-reviewed studies finding reduced property values around turbine sites. In fact, Republic surmises, 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. (Tr. IV at 857; App. Ex. 28 at 3, Att. MM-1 at 2.)

{¶ 81} Relying on its witness Baldosser's testimony, Republic submits the Project will provide value to local farmers by diversifying the streams of income and providing a safety net when the agricultural industry is experiencing unpredictable challenges. Mr. Baldosser testified that Seneca County heavily relies on agricultural production, which can be severely impacted by unfavorable weather. For example, Mr. Baldosser noted that the agricultural community in Seneca County has recently suffered significant losses due to heavy rainfall and flooding, which prevented farmers from tilling and planting on their land. 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. (App. Ex. 32 at 2, 3.)

{¶ 82} Staff confirmed that Republic held two public information meetings to discuss the Project and that Republic maintains a local office in Bellevue, Ohio, as well as a project website. Staff also asserts that Republic has served completed copies of the amended application upon the relevant government entities. (Staff Ex. 1 at 55.)

{¶ 83} Staff points out that Republic has committed to implement a complaint resolution plan to resolve complaints received about the Project. The Applicant will finalize the plan with Staff prior to construction. According to Staff, the Applicant will notify, by mail, affected property owners and tenants regarding the Project and the complaint resolution plan no later than seven days prior to construction. (Staff Ex. 1 at 55.)

{¶ 84} Based upon these facts, Staff recommends that the Board find that the Project meets the requirements of R.C. 4906.10(A)(6) (Staff Initial Br. at 26; Staff Ex. 1 at 56).

{¶ 85} Local Residents contend that the issues addressed in Staff's investigation into the nature of the environmental impact under R.C. 4906.10(A)(2), as well as those other arguments highlighted by Local Residents, demonstrate that construction of the Project would not be in the public interest, convenience, and necessity as required under R.C. 4906.10(A)(6). Responding to Republic's contention of the Project's economic benefit, Local Residents assert that the Project will cause serious damage (Local Residents Reply Br. at 4). Citing *In re the Adoption of Chapter 4906-17 of the Ohio Adm.Code and the Amendment of Certain Rules in Chapters 4906-1, 4906-5 and Rule 4906-7-17 of the Ohio Adm.Code to Implement Certification Requirements for Electric Generation Wind Facilities*, Case No. 08-1024-EL-ORD, 2008 WL 4822923 (Oct. 28, 2008), ¶40, Local Residents note that the Board has previously emphasized ". . . that an applicant's assertion that there is a particular economic benefit to the community regarding a proposed wind energy facility will not be an offset to the public protection." Local Residents assert that the economic analysis presented to demonstrate the economic benefit of the Project only focused on the benefits and did not examine the economic disadvantages and costs suffered by the community as a result of the Project's

damage to businesses and residents. (Local Residents Reply Br. at 3, 4 citing Tr. I at 122, 125-130.)

{¶ 86} In their initial briefs, both the Park District and Local Government Entities highlight that the application's visual impact study failed to address the effect that the Project would have on the Bowen Nature Preserve. In support of their position, the Park District and Local Government Entities submit that neither the Applicant's expert who prepared the Applicant's visual impact study nor the applicable Staff actually visited the Bowen Nature Preserve, which is the only county park in the project area and the one closest to the project area. (Tr. III at 535, 537, 540; Tr. VII at 1409, 1438, 1446, 1449; Seneca Park District Ex. 3 at 1.) Instead of including the Bowen Nature Preserve as part of its visual impact study, Republic presented representative views of other parks, none of which are as close to the project area as Bowen Nature Preserve (Tr. III at 537; Tr. VII at 1452; App. Ex. 21 at 10). According to the Park District and Local Government Entities, this omission is contrary to Ohio Adm.Code 4906-4-08(B) which they believe mandates that the actual parks in the project area be at least considered as part of the application process (Seneca Park District Initial Br. at 3; Local Government Entities Initial Br. at 10). As support for their positions, the Park District and Local Government Entities both reference the testimony of Park District witness McCallister who visited the Bowen Nature Preserve and indicated that, based on his understanding of the proposed Project, he visualizes seeing 15 to 20 turbines and believes that he will be able to see a wind turbine in every direction unless his view is blocked by an obstruction such as a tree if the project proceeds as proposed (Tr. VII at 1401; Seneca Park District Ex. 3 at 2). The Park District and Local Government Entities also focus on Applicant witness Robinson's acknowledgement that there would be the potential for visibility of turbines from the Bowen Nature Preserve (Tr. III at 542).

{¶ 87} Local Residents point to the issues they raised regarding socioeconomic impacts of the Project—the proposed 46 dBA operation noise limit of the turbines exceeding the operational noise standard in Ohio Adm.Code 4906-4-09(F)(2), shadow flicker onto non-participating residences, and the “visual blight” that the turbines will impose on the

community—as evidence that the accompanying impacts on the community cause the Project to fail to meet the requirements of R.C. 4906.10(A)(6) (Local Residents Initial Br. at 22, 49, 51). Likewise, Local Residents argue that the deficiencies they identify concerning the ecological impact of the Project—a lack of investigation into constructing turbines on karst, the potential for flooding and contamination of water supplies based on such construction, the use of outdated bird and eagle studies utilized by Republic, and the lack of eagle buffer zones—demonstrate that the Board lacks information necessary to determine that the Project is in the public interest, convenience, and necessity (Local Residents Initial Br. at 33, 36, 38, 39, 41). Local Residents also point to concerns they raise regarding the impact of the Project on public services, facilities, and safety, such as delays that the turbines could potentially cause for emergency medical and LifeFlight services, and argue that potential delays in the provision of emergency medical services mean that the Project does not serve the public interest, convenience, and necessity under R.C. 4906.10(A)(6) and that the Board should not issue a certificate (Local Residents Initial Br. at 46).

{¶ 88} Local Residents raise arguments concerning the identification of the N&F Nest since the studies performed in this case. Local Residents essentially contend that due to the alleged inadequacies with Republic’s bald eagle studies compared to Local Residents witness Shieldcastle’s findings set forth in Local Residents Ex. 23, the Board should not act until Republic performs a new, accurate bald eagle study (Local Residents Initial Br. at 66). Without such information to guide its decision, Local Residents argue that the Board has a responsibility to deny a certificate for the Project not only under R.C. 4906.10(A)(3) but also under R.C. 4906.10(A)(6) (Local Residents Suppl. Initial Br. at 5, 6).

{¶ 89} Similarly, Local Residents continue to maintain that the Board must work to preserve the safety and economic viability of local airports and require certain actions on the part of Republic in response to alleged threats to aviation (Local Residents Initial Br. at 51). Local Residents support the originally proposed Conditions 52-57 and 59 and urge the Board to include them in any issued certificate despite Staff no longer recommending their inclusion. While acknowledging that the *One Energy Decision* limited ODOT’s jurisdiction,

Local Residents maintain that the Board's responsibility to protect aviation is not constrained by any limits on ODOT's authority and that the Board has a separate duty to protect aviation and airports under R.C. 4906.10(A)(6). According to Local Residents, ODOT still has the technical expertise to evaluate threats to aviation, and this expertise can assist the Board in assessing such potential threats to local airports. Local Residents argue that any threats to aviation identified by ODOT prior to the *One Energy Decision* still exist after the issuance of the decision, and that the Board still has authority to address such threats to aviation. Thus, Local Residents argue that in regard to aviation, the Board should adopt the conditions recommended by Staff and ODOT during the original hearing in this case in order for the Project to comply with R.C. 4906.10(A)(6). (Local Residents Suppl. Reply Br. at 4.) Similar to the Park District and Local Government Entities, Local Residents state that the locally-owned natural recreational areas are located within the project area, such as Bowen Nature Preserve and that they will be physically damaged by the turbine destruction of their views. (Local Residents Reply Br. at 19). Local Residents point out that the amended application did not evaluate the turbines effect on the Bowen Nature Preserve or identify it on its map of ecological resources. Local Residents opine that this is in violation of Ohio Adm.Code 4906-4-08(B)(1)(a)(iii). (Local Residents Reply Br. at 19.)

{¶ 90} OEC argues that the proposed facility will serve the public interest, convenience, and necessity, as it represents the transition toward an electric grid reliant on renewable energy, rather than fossil fuels. OEC argues that impacts such as an increased average summer temperature, more frequent extreme weather and rainfall, and flooding will result in the state of Ohio if significant national and international action does not reduce reliance on fossil fuel emissions. Because the causes and impacts of climate change are known, according to OEC, it is in the public interest to avoid those impacts by reducing greenhouse gas emissions from the energy sector. OEC asserts that approving the application and providing the state of Ohio with an additional 200 MW of renewable generation capacity will serve the public interest, convenience, and necessity. (OEC Initial Br. at 8, 9.)

b. Board Conclusion

{¶ 91} With respect to R.C. 4906.10(A)(6), the Board finds that the Project will not serve the public interest, convenience, and necessity. Public interest, convenience, and necessity should be examined through a broad lens. For example, this factor should consider the public's interest in energy generation that ensures continued utility services and the prosperity of the state of Ohio. Accordingly, the Board acknowledges that public benefits would potentially result from the Project. In particular, the record reflects potential economic benefits, such as additional jobs and tax revenues, would be generated by the construction and operation of the Project (Staff Ex. 1 at 24, 25). Likewise, members of the public and OEC believe that the Project could have a positive impact on air quality and the global climate by transitioning the state of Ohio toward an electric grid reliant on renewable energy sources rather than fossil fuels (Public Hearing Tr. at 105, 132-133, 185, 190-192, 200; OEC Initial Br. at 8, 9). These arguments about the Project's potential economic benefits and positive impact on air quality and global climate certainly fit into a broader understanding of this statutory criteria. At the same time, this statutory criterion regarding public interest, convenience, and necessity, must also encompass the local public interest, ensuring a process that allows for local citizen input, while taking into account local government opinion and impact to natural resources. As part of the Board's responsibility under R.C. 4906.10(A)(6) to determine that all approved projects will serve the public interest, convenience, and necessity, we must balance projected benefits against the magnitude of potential negative impacts on the local community.

{¶ 92} Initially, we note the general opposition to the Project from the local citizens. Several local government entities intervened in this proceeding in order to oppose the Project. To intervene, each county and township passed resolutions authorizing the entity to go forward (*see, e.g.*, Attachment to June 20, 2019 Board of Trustees of Adams Township Motion to Intervene). Additionally, non-intervening government entities, such as the Thompson Township Board of Trustees filed resolutions in opposition to the project (*See* May 14, 2020 Public Comment). Although a party to the case, Seneca County submitted

resolutions in the docket affirming opposition to the project, sunsetting the Alternative Energy Zone in the county, and supporting local citizens right to intervene in the proceeding (See March 22, 2021 Public Comment “Resolution Rescinding Board's Orders of October 18, 2016” and March 25, 2021 Public Comment “Resolution: Rescinding the Boards orders of October 18, 2016”). Seneca County Commissioner Mike Kerschner testified that “[w]hile there is a small fraction of people for these projects, the majority of Seneca County residents oppose them” and referenced a petition of over 3,000 residents’ signatures opposing the project (Seneca County Ex. 1 at 1). While some local opposition is common in many siting projects, considering the above resolution as well as the comments filed in the docket and the testimony given at the local public hearing, the Board recognizes that in this proceeding it has been especially prominent and one-sided.

{¶ 93} Regarding the oppositions discussed by Local Government Entities and Local Residents, we note the potential impact on local parks, particularly the Bowen Nature Preserve. The Seneca County Park District Bowen Nature Preserve is entirely located within the project area (Tr. VII at 1409). Seneca County Park District opposes any construction of the Project within 2.5 miles of any of its parks’ boundaries (Seneca County Park District Ex. 3 at 2). Bill McCallister, a Seneca County Park District Board member, testified that, based on his understanding of the proposed project boundary, he will be able to see a wind turbine in every direction while at the Bowen Nature Preserve unless the view is blocked by an obstruction such as a tree (Seneca Park District Ex. 3 at 2). Finally, the Board finds that due to Bowen being the closest park to the project area (Tr. III at 540), it would have been prudent if the Applicant and Staff had physically visited the Bowen Nature Preserve during one of their respective site visits in order to best assess the potential impacts of the Project.

{¶ 94} The Board additionally has concerns about the project’s impact on roads and bridges in the area. This is a common concern in many cases before the Board and is often addressed through a road use and maintenance agreement (RUMA) with local governments. Here, Republic stated in its application that it expected to enter into a RUMA with the local county engineer (App. Ex. 1C at 40-44, Ex. E). However, Seneca County

submitted a resolution that expressly resolves to void any RUMA previously signed with the Applicant (March 25, 2021 Public Comment “Resolution: Rescinding the Boards orders of October 18, 2016 Public Comment.”). Without a RUMA in place, and without optimism that such an agreement can be made, the Board is concerned that the impacts of the various construction and maintenance vehicles associated with the Project would negatively affect the local roads and bridges and thus would not be in the public interest.

{¶ 95} In accordance with the Board’s conclusions regarding R.C. 4906.10(A)(3), discussed more fully below, the Board believes that the potential impact of the turbines on local water supplies has not been sufficiently investigated by the Applicant, while the Local Residents have set forth credible evidence raising concerns about the impacts to local water sources. Approximately half of the project area is located in the Bellevue-Castalia Karst Plain and a total of 21 turbines are planned to be located within that Karst Plain (App. Ex. 1C at 77-78, Ex. F at 3; Tr. IV at 823, 844). Witness Sasowsky testified that between 70 and 100 percent of the project area is occupied by karst or potential karst (Tr. VI at 1207-1209). This prevalence of karst topography only heightens the potential complications that could flow from construction of turbines in the area.

{¶ 96} As discussed by Local Residents, due to construction activities, contaminated water may be directed to sinkholes and get into the aquifer (Local Residents Ex. 24 at 14, 21). According to Dr. Sasowsky, the installation of turbine bases in shallow bedrock and grouting the karst openings under the foundations can limit the water recharges to an underlying aquifer, potentially disrupting the supply residential and other water resources. (Local Residents Ex. 24 at 16.) Dr. Sasowsky also testified that karst openings can develop under and collapse wind turbines via both slow land subsidence and rapid collapse due to the additional weight of the structures on the land surface (Local Residents Ex. 24 at 21). Further, witness Sasowsky identified a concern that sinkholes may become plugged with sediment as a result of turbine construction and, therefore, result in flooding (Local Residents Ex. 24 at 16). Given the rural nature of the project area, Dr. Sasowsky stressed that the availability of suitable water for drinking, agriculture, and other

purposes is critical. Dr. Sasowsky noted that most residences in the area are supplied by individual private wells, which make use of groundwater from underneath their property, and that if such water supplies were lost the effect would be devastating. (Local Residents Ex. 24 at 15, 16.)

{¶ 97} Concern regarding construction of turbines on karst formations was not voiced solely by those individuals that make up the Local Residents. Numerous community members testified at the local public hearing to express apprehension about constructing turbines on karst and the potential for sinkholes, flooding, subsiding of land, and negative impact on groundwater flow. A number of these witnesses raised concerns about the impact of the proposed project on aquifers in the karst formations that flow to Lake Erie, citing the potential for chemical runoff. Witnesses voiced opposition to Republic's proposed remedy of sinking pilings into the ground, which they believe could further damage the karst formations. (Public Hearing Tr. at 30, 31, 34, 35, 37, 38, 41-44, 52, 53, 75, 91, 92, 95, 96, 122, 123, 139, 162-171, 177-180, 206-208, 211, 215, 233, 234, 250, 251.)

{¶ 98} Republic does not dispute that karst is present in the project area and admits that it could be prevalent. Rather than offer evidence to refute the testimony of Dr. Sasowsky, however, Republic simply states the steps it intends to subsequently take to address the issues, such as its plan to continue developing a project design that fully identifies and accounts for karst and other geological features and its commitment to satisfy its obligations under Ohio Adm.Code 4906-4-09(A)(2)(b)(i) to submit a geotechnical evaluation confirming that there are no issues to preclude development of the Project (Republic Initial Br. at 64, 65; App. Ex. 1 at 1C, Ex. F). While the Board has authority to allow for the submission of studies or plans following the issuance of a certificate, for a matter as vital as the preservation of local water supplies, particularly with respect to a project being constructed in an area with widespread karst formations, the Board is unable to find that this Project is in the public interest without such information first being in the record.

{¶ 99} Consequently, the Board cannot find that any predicted economic or environmental benefits will outweigh the potentially catastrophic damage that would result from contamination of community private wells and water supplies.

{¶ 100} Based on the above, the Board does not find that at this time the proposed facility will serve the public interest, convenience, and necessity as required by R.C. 4906.10(A)(6).

2. MINIMUM ADVERSE ENVIRONMENTAL IMPACT

{¶ 101} Pursuant to R.C. 4906.10(A)(3), the proposed facility must represent the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, along with other pertinent considerations.

a. Arguments of the Parties

{¶ 102} According to Staff, the Applicant determined that the best location for a wind power production facility would be in northwest Ohio based on the consideration of various factors, including: adequate wind resource; nearby access to adequate transmission infrastructure; willing land lease participants and communities; site accessibility; low-density population; appropriate geological conditions; compatible land use; and limited sensitive geological and cultural resources. Specifically, northeastern Seneca County and southeastern Sandusky County fit this criteria due to their adequate wind resources, adequate power transmission and transportation infrastructure, and land that is sparsely populated relative to other areas of the state of Ohio and used for agriculture. (Staff Ex. 1 at 44.)

{¶ 103} Regarding the requirement of R.C. 4906.10(A)(3) that the facility represent the minimum adverse environmental impact, the Staff Report identifies the various efforts that Republic will undertake to ensure that impacts, both temporary and permanent, are reasonably minimized. According to Staff, these efforts, together with its recommended

conditions to further mitigate those impacts, represent the minimum adverse impact. (Staff Initial Br. at 18.)

{¶ 104} Additionally, Staff evaluated the site selection process to determine whether the proposed facility represents the minimum adverse environmental impact (Staff Ex. 1 at 44). Staff discusses measures that must be taken by the Applicant in order to minimize adverse environmental impact. These measures address concerns related to cultural resources, the incidental taking of identified bats, setbacks, blade shear, ice throw, noise, shadow flicker, truck traffic, impacts to radar systems and off-air television reception, and decommissioning (Staff Ex. 1 at 44, 45).

{¶ 105} Staff recognizes that while there will be aesthetic impacts due to the height of the turbines, it is Staff's responsibility to achieve a result that the facility represents the minimum adverse environmental impact considering the state of available technology and the nature and economics of various alternatives and other pertinent considerations. According to Staff, the law does not establish an absolute value of no impacts. Instead, it charges the Board with minimizing the impacts of the proposed project (Staff Reply Br. at 9 citing R.C. 4906.10(A)(3)).

{¶ 106} Local Government Entities dispute Staff's contentions that the low population density supports the proposed project's location. Local Government Entities argue that if the presence of the turbines is determined to be agreeable, it should not be of any importance whether the number of people impacted is greater or fewer. Local Government Entities emphasize the fact that the majority of Seneca County residents oppose the presence of wind turbines in their communities. They submit that the residents and visitors of Seneca County should not bear the burden of living with wind turbines just because the area is less densely populated than other areas in the state of Ohio. (Local Government Entities Initial Br. at 1, 2 citing Seneca County Ex. 1 at 6, 7.)

{¶ 107} Local Residents contend that Republic recognizes that its design does not comply with the Board's shadow flicker limits. However, they believe that Republic has

committed to do nothing more than to promise to do something to comply after certification. Therefore, Local Residents argue that the application fails to satisfy R.C. 4906.10(A)(3). (Local Residents Reply Br. at 17 citing Republic Initial Br. at 20.)

{¶ 108} Republic believes that the Project will have a minimum ecological impact (Republic Initial Br. at 9, 10). According to Republic, its geotechnical report demonstrates that the local geology or hydrology will not be prohibitive to the construction of wind turbines and related facilities. While Republic has identified areas of known, probable, and suspected karst geology within the project boundary, Republic intends to conduct site-specific investigations into each proposed turbine location prior to construction. Republic witness McGee 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.” Similarly, Mr. McGee testified that “a plan of grout would be part of the final design which . . . would be the next phase of the project.” (Tr. IV at 818-824, 841.)

{¶ 109} Relying upon the testimony of its witness Dr. Ira Sasowsky, a geoscientist providing geologic, hydrologic, and soil consulting, Local Residents contend that karst is pervasive throughout the project area with between 70 to 100 percent of the project area occupied by karst or potential karst. (Local Residents Ex. 24 at 1; Tr. VI at 1207-1209.) According to Local Residents, approximately half of the project area is located in the Bellevue-Castalia Karst Plain, consisting of sinkholes (App. Ex. 1C at 77; Tr. IV at 823). A total of 21 turbines are located in the Karst Plain. (App. Ex. 1C at 78, Ex. F at 3.) Local Residents explain that karst topography is formed on limestone, gypsum, and other rocks primarily by dissolution as flowing water wears away rock (Local Residents Ex. 24 at 3-5). It is characterized by sinkholes, caves, and underground streams replenished by rainwater that wears away the rock and eventually returns to the surface as springs, seeps, or as base flows in streams (Local Residents Ex. 24 at 3-5). Local Residents reference Republic’s recognition that the most common geotechnical issue encountered in the project area is sinkholes from karst features and that dewatering may be necessary during construction if

significant precipitation events occur when excavations are exposed (Local Residents Initial Br. at 37 citing App. Ex. 1C, Ex. F at 6, 7).

{¶ 110} Local Residents contend that karst openings can develop under and collapse wind turbines either via slow land subsidence or rapid collapse due to additional weight on the land surface (Local Residents Ex. 24 at 13). To prevent the occurrence of subsidence problems, Local Residents contend that the subsurface must be thoroughly explored with borings or other methods. Local Residents submit that Republic has only provided a general promise to conduct subsurface exploration after certification and a vague assurance that it will stabilize the turbine foundations if problematic karst features are found. (Local Residents Ex. 24 at 21; Local Residents Initial Br. at 34.)

{¶ 111} Local Residents submit that Republic failed to satisfy its obligation under Ohio Adm.Code 4906-4-08(A)(4)(a) to evaluate the impact to public and private water supplies due to the construction and operation of the wind project. Specifically, Local Residents contend that, although turbine construction in karst areas can pollute or cut off the community's water supply, Republic failed to perform any studies to determine whether this is the case (Local Residents Initial Br. at 34). Instead, Local Residents claim that Republic and Staff have focused on the structural stability of turbines in karst and mistakenly opined that turbines cannot damage the community water supply simply because the turbines are at least 1,371 feet from neighboring homes as required by Ohio Adm. Code 4906-4-08(C)2(b). Additionally, Local Residents emphasize that rather than performing a field investigation of the groundwater or the area's geology, Republic only promises to drill borings after the issuance of a certificate. Local Residents also point out that Republic relied on the testimony of a civil engineer (witness McGee), and not on the testimony from a hydrologist for the purpose of assessing the effects of turbines on groundwater supplies. Local Residents posit that witness McGee provided no support regarding his conclusion relative to groundwater but, rather, simply deferred to the Hull Report. (Local Residents Initial Br. at 26, 27 citing App. Ex. 27 at 2, 5; Tr. IV at 839.)

{¶ 112} Local Residents submit that underground water pathways exist at proposed turbine sites (Local Residents Initial Br. at 29; Tr. IV at 851, 852). Therefore, Local Residents argue that, although Republic witness saw no sinkholes or other signs of karst at the turbine sites, it does not mean that it is not there (Local Residents Reply Br. at 12 citing Tr. IV at 818, Local Resident Ex. 24 at 7).

{¶ 113} While Republic has proposed that grout be pumped into karst openings to provide adequate foundation support, Local Residents respond that such an approach may actually increase karst collapses elsewhere in the area by blocking the natural drainage of surface water into cavities, thereby rerouting the water flow elsewhere where it could erode sediments in the subsurface and induce surface collapses (Local Residents Initial Br. at 33; Local Resident Ex. 24 at 21). Local Residents also believe that installation of turbine bases in shallow bedrock and grouting the karst openings under the foundations can limit the water recharge to an underlying aquifer, potentially disrupting residential and other water supplies (Local Resident Ex. 24 at 16). Local Residents submit that the protection of the karst geology is necessary to protect the community's groundwater supplies (Local Residents Reply Br. at 11).

{¶ 114} Source Water Protection Areas (SWPAs) are recharge areas that are used to protect drinking water resources from contamination. (App. Ex 1C at Ex. F; Tr. VI at 1207). The three SWPAs in the project area protect the public water supplies of the city of Clyde, Capital Aluminum and Glass, and the city of Fremont (Local Residents Initial Br. at 25; App. Ex. 1C at Ex. F). Local Residents contend that Republic seeks to construct turbines in the SWPAs, including 21 turbines in the Capital Aluminum and Glass SWPA (Local Residents Initial Br. at 26). Local Residents note that despite Applicant's representation that the Project will comply with any drinking water source protection plans near the project area, the application does not identify any requirements in the SWPAs that would protect groundwater supplies from turbines (Local Resident Reply Br. at 10, 11 citing App. Ex. 1C at Ex. F at 5). According to Local Residents, although no government program prohibits the

siting of wind turbines in SWPAs, it does not excuse the Board from protecting water supplies from energy facilities (Local Residents Initial Br. at 26).

{¶ 115} According to Local Residents, groundwater contamination occurs in karst because of the rapid movement of contaminated surface water into the ground. Specifically, Local Residents contend that when changes are made to land surfaces from activities such as turbine construction, contaminated water from fields, ditches, and constructed areas may be directed to sinkholes and get into the aquifer (Local Residents Ex. 24 at 14, 21). Additionally, Local Residents posit that at a travel rate of 3,500 to 8,600 feet per day, groundwater from the vicinity of a turbine can travel 1,371 feet in four to nine hours. As a result, Local Residents submit that contaminants from a turbine construction site could reach a neighboring well in four to nine hours. Further, Local Residents state that if the turbine blocks the groundwater recharge, the well will lose all or part of its water supply. (Local Residents Initial Br. at 29, 30.)

{¶ 116} Local Residents insist that clean, uninterrupted groundwater is essential to the residents in and around the project area. Local Residents point out that the majority of residents in the vicinity of the project area rely upon private wells for potable water (App. Ex. 1C at 75). Most of these wells make use of groundwater from underneath their property (Local Residents Ex. 24 at 16). The availability of suitable water for drinking, agriculture, and other purposes is critical in rural areas (Local Residents Ex. 24 at 15, 16). Local Residents submit that it will be devastating if groundwater supply for private wells is lost (Local Residents Ex. 24 at 15, 16). Therefore, Local Residents aver that it is important to understand the source of water for each neighborhood, including identifying the aquifer and the groundwater flow directions (Local Residents Ex. 24 at 16). Local Residents also aver that although Republic opines that the Project will not modify surface water drainage patterns, the Applicant has not performed the appropriate field work to support this conclusion (Local Residents Reply Br. at 13).

{¶ 117} Local Residents state that in the project area bedrock is found as shallow as four feet below the surface and well water has been located as shallow as eight feet from the ground surface (Local Residents Initial Br. at 25, 38; App. Ex. 1C at 3, Ex. F at 5). Local Residents also represent that turbine foundations are typically 10 feet deep and 60 feet wide (Tr. IV at 816) and that blasting of bedrock may be required to install turbine foundations in openings that transmit surface water to the groundwater table and in karst pathways that convey groundwater through the bedrock to water wells. As a result, there will be a possible need for dewatering (Local Residents Initial Br. at 38, 39; App. Ex. 1C, Ex. F at 7). Local Residents also point out that turbine foundations may be adversely affected by upward movement of groundwater from sinkholes (Local Residents Ex. 24 at 11, 16).

{¶ 118} Local Residents note that there are few streams available to remove stormwater from the land surface. While sinkholes could assist with providing stormwater drainage, Local Residents believe that this may not occur and result in flooding if the sinkholes are plugged with sediment as a result of turbine construction. (Local Residents Initial Br. at 36, 37, Ex. G). Local Residents allege that although the Project may increase flooding hazards in the area, the application fails to prescribe any mitigation measures other than to identify precautions for installing underground electric lines in streams and floodplains (Local Residents Reply Br. at 13, 14 citing App. Ex. 1C, Ex. F at 4).

{¶ 119} Based on the alleged deficiencies discussed above, Local Residents believe that if a certificate is issued to Republic, it should prohibit turbine construction in karst geology and should prohibit the grouting of karst openings (Local Residents Initial Br. at 41). In making this recommendation, Local Residents note that while the Staff Report reflects that Republic will not build in karst formations, Republic states that it will build formations in karst using grout or other means. Local Residents also emphasize that the Staff Report contains no conditions that would prohibit Republic from constructing turbines in karst or from filling karst openings with grout. (Local Residents Initial Br. 40 citing Staff Ex. 1 at 26; App. Ex. 27 at 6.)

{¶ 120} Republic argues that even though the Project's final site-specific studies and designs are not complete, Local Residents seek to ban it from constructing turbines at any sites possessing karst features to avoid the contamination of well water supplies. According to Republic, Local Residents are speculating, without any factual basis, that project construction could result in flooding if the karst features are not properly handled. In support of its position, Republic submits that Local Residents' witness Sasowsky lacked knowledge regarding Republic's later site-specific studies and resulting turbine designs and whether they would be sufficient to address his concerns regarding groundwater. Moreover, Republic contends that witness Sasowsky admitted that he did not see anything in the Republic's application to support the belief that Republic's investigation into the geology of the area would be limited to surface features and not include comprehensive invasive testing. (Republic Reply Br. at 66-68 citing Tr. VI at 1191-1194, 1196-1199, 1210.)

{¶ 121} Further, Republic asserts that witness Sasowsky had no opinion on whether the studies conducted by Republic were consistent with its obligations under the Ohio Administrative Code, and testified that the amended application makes clear that the final design of the Project will depend on later and in-depth site-specific investigations. As such, Republic argues that exhaustive testing at this early stage is not consistent with the requirements set forth at Ohio Adm.Code 4906-04-08 and 4906-4-09(A)(2)(b)(i). To that end, Republic believes that Local Residents are creating conflict where there is none because it is not permitted to start construction until it has provided Staff with a final fully detailed geotechnical exploration and evaluation to confirm that there are no issues to preclude the development of the facility. (Republic Reply Br. at 64-68; Tr. VI at 1192, 1196-99, 1210.)

{¶ 122} In response to Local Residents' arguments relative to the existence of karst in the project area, Republic recognizes that karst features and their effect on groundwater will require further investigation during Project design and construction. To that end, Republic has set forth its intention in the amended application to develop a project design that fully identifies and accounts for karst and other geological features. Republic further explains that its witness McGee testified that the Applicant would conduct site-specific

investigations into each proposed turbine location prior to construction as part of the final design process. Witness McGee further testified that a geotechnical firm would drill geotechnical borings at the exact turbine locations and determine the subsurface conditions at those locations. Republic submits that grout will not be blindly injected into the bedrock and that a grout plan would be part of the final design of the Project. According to Republic, the final Project design, including grouting, would manage groundwater such that existing natural drainage patterns would not be modified. (Republic Initial Br. at 11; App. Ex. 1C, Ex. F; Tr. IV at 824, 841, 846, 847.)

{¶ 123} Once the certificate is issued, and prior to construction of any wind facilities, Republic indicates it will attend a pre-construction conference and submit a fully detailed geotechnical exploration and evaluation to confirm that there are no issues to preclude development of the facility pursuant to Ohio Adm.Code 4906-4-09(A)(2)(b)(i). Republic states it cannot proceed with construction of this Project until Staff reviews the geotechnical exploration and evaluation. Even in this early stage, Republic states that Staff has indicated the Project does not pose a risk to surface or groundwater and later site-specific testing and monitoring would ensure minimal impact. (Republic Reply Br. at 64, 66 citing Staff Ex. 1 at 25-27.)

{¶ 124} Republic maintains that the turbine locations will have little impact on surface water because the Project is proposed to be built primarily on land that is already being disturbed seasonally and annually for agriculture. Republic has limited waterbody impacts to only 0.55 acres of temporary impacts to streams and ditches and plans to avoid all temporary or permanent impacts to wetlands. (Republic Initial Br. at 11, 12 citing App. Ex. 1C, Ex. J at 7.2.)

{¶ 125} Measures to reduce water quality impacts will be taken through the development of a Storm Water Pollution Prevention Plan (SWPPP) as part of the Ohio EPA issued National Pollutant Discharge Elimination System (NPDES) permit for storm water discharge associated with construction activities. No ponds or lakes will be impacted by the

facility during construction or operation. Collection lines will cross 100-year floodplain areas and may require coordination with the local floodplain permit administrator. (Staff Ex. 1 at 27.)

{¶ 126} Staff believes that the presence of karst features in the project area requires avoidance and special consideration during foundation design and installation. (Staff Initial Br. at 13,1 citing Staff Ex. 5 at 8, 9). Staff notes that where the Applicant conducts geotechnical studies that identify karst features and where the features are identified, these areas would be avoided for siting wind turbines (Staff Initial Br. at 13, 14 citing Staff Ex. 1 at 26; Tr. VII at 1414-1417).

b. Board Conclusion

{¶ 127} Regarding the issue of karst, the Board determines that Republic should be prohibited from moving forward with this Project based on the concerns raised by the objecting intervenors in this proceeding, as karst is significantly present in the project area and cannot be properly addressed through the adoption of conditions for the proposed project. In reaching this determination the Board recognizes that Staff identified karst topography in the project area (Staff Ex. 5a at 8, 9). Staff asserted that where geotechnical studies identify karst features, those areas should be avoided for the siting of wind turbines (Staff Ex. 1 at 26). Estimates of the presence of karst or karst behavior in the project area vary from Applicant witness McGee's belief of approximately 50 percent to Local Residents' witness Sasowsky's representation of 70 to 100 percent (Tr. IV at 823; Tr. VI at 1207). According to Applicant witness McGee, 21 of the proposed turbine locations are in probable karst areas (Tr. IV at 844).⁴

{¶ 128} The Board recognizes that for the Republic project area, the presence of karst remains below the land surface and is difficult to identify (Tr. IV at 823), but, based on the

⁴ While noting the difference between the number of turbines analyzed by Applicant and Staff, the witness was unable to reconcile these totals (Tr. IV at 845).

estimates of anywhere from 50 to 100 percent, the Board finds that the likely level of karst presence is significant and concerning. (Tr. VI at 1204.)

{¶ 129} Specifically, the Board finds merit in the concerns raised by Local Residents regarding the risk of groundwater contamination due to the presence of karst. As discussed by Local Residents, due to construction activities, contaminated water may be directed to sinkholes and get into the aquifer. As noted by witness Sasowsky, groundwater contamination happens in karst areas because there may be open and quick pathways that connect surface water to groundwater. (Local Residents Ex. 24 at 14, 21.) Based on the travel rate of this water, contaminants from turbine construction could reach a neighboring well in four to nine hours (Local Residents Initial Br. at 30). The record reflects that the majority of residents in the vicinity of the project area rely on private wells for potable water and most of these wells make use of groundwater from underneath their property. (App. Ex. 1C at 73; Local Residents Ex. 24 at 16.) The Board recognizes that the availability of suitable water for drinking, agriculture, and other purposes is critical in rural areas, such as the one in this case, and that it would be devastating if the groundwater supply for private wells is lost (Local Residents Ex. 24 at 15, 16).

{¶ 130} The Board is also sensitive to the importance of maintaining recharge areas that are used to protect drinking resources from contamination (App. Ex. 1C at Ex. F; Tr. VI at 1207). As reflected in the record, Republic seeks to construct turbines in SWPAs located in the project area, which may have an adverse effect on groundwater supplies in the project area. Of even a greater concern is the potential harm that the proposed remedy of grouting may cause to the project area. Specifically, the Board relies on the testimony of Local Residents' expert witness Dr. Sasowsky, a geoscientist who provides geologic, hydrologic and soil consulting. According to Dr. Sasowsky, the installation of turbine bases in shallow bedrock and grouting the karst openings under the foundations can limit the water recharges to an underlying aquifer, potentially disrupting the supply residential and other water resources. (Local Residents Ex. 24 at 16.) Witness Sasowsky expressed concern that the use of grout in karst openings may result in increases in karst collapses elsewhere in the

area by blocking the natural drainage of surface water into cavities (Local Residents Ex. 24 at 21). Further, witness Sasowsky identified a concern that sinkholes may become plugged with sediment as a result of turbine construction and, therefore, result in flooding (Local Residents Ex. 24 at 16). Local Residents contend that the use of grout can similarly result in flooding (Local Residents' Initial Br. at 37).

{¶ 131} The Board notes that Staff stated that at the time of observing the presence of karst, the Applicant would either have to address those features from a standpoint of whether they are suitable for building the wind turbines via mitigation or decide that those areas are not suitable at all for construction. (Staff Ex. 1 at 26; Tr. VII at 1415-1417.) In this case, the Board notes that the remedy identified to address these concerns is the use of grouting. However, this approach may not actually be a remedy at all but, instead, may result in its own set of problems such as water contamination and flooding as described above. There is also the concern of a collapse of a wind turbine due to overloading and erosion (Local Residents Ex. 24 at 13).

{¶ 132} Based on these significant concerns, the Board recognizes that proceeding with the proposed project as set forth in the record in this case could have a major impact on the public health and wellbeing of the residents in the project area. These concerns are further magnified due to the pervasive presence of karst in the project area and the significant number of turbines situated in karst areas. As a result, the Board finds that the construction of the proposed project should not go forward at this time. In reaching this determination, the Board finds that there is a high likelihood of harm with no reliable remedy and that the identified concerns are too significant in nature to wait until the conducting of post-certificate studies. No other conditions were proposed for consideration for the purpose of remedying the identified concerns. Therefore, the Board concludes that Republic has failed to demonstrate that the facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternative, and other pertinent considerations as required pursuant to R.C. 4906.10(A)(3).

3. REMAINING STATUTORY CRITERIA

{¶ 133} Pursuant to R.C. 4906.10(A), the Board shall not issue a certificate for the construction, operation, and maintenance of a major utility facility unless it finds and determines all of the factors outlined in R.C. 4906.10(A)(1) through (8). Consistent with that statute, and considering our conclusions regarding R.C. 4906.10(A)(3) and (A)(6), the Board cannot issue a certificate for the construction, operation, and maintenance for this proposed electric generation facility, and therefore determinations as to the remaining R.C. 4906.10(A) factors—(A)(2), (A)(4), (A)(5), (A)(7), (A)(8)—are unnecessary at the current time in this Order. The Board acknowledges that the parties provided extensive evidence as to the satisfaction, or lack thereof, of the additional R.C. 4906.10(A) factors, as well as significant discussion as to the suitability of the conditions that Staff recommended be incorporated as part of any issued certificate. A number of these conditions were disputed by various parties in this case. However, given our findings as to factors (A)(3) and (A)(6), additional conclusions are not warranted. Further, no inferences should be made regarding the Board’s consideration relative to any R.C. 4906.10(A) criteria as any such determinations would still potentially remain subject to the conditions recommended by Staff, as well as any other terms, conditions, or modifications as the Board considers appropriate.

VIII. CONCLUSION

{¶ 134} Based on its review of the application and the record in this case, the Board has determined that Republic has not met its burden of proof relative to the requirements of R.C. 4906.10(A)(3) and (A)(6), for the reasons set forth above. Pursuant to R.C. 4906.10(A), the Board shall not grant a certificate for the construction, operation, and maintenance of a major utility unless it finds and determines R.C. 4906.10(A)(1) through (8). Based on the denial of R.C. 4906.10(A)(3) and (A)(6) and the determination that the concerns could not be addressed through the inclusion of conditions, the application should be denied.

IX. FINDINGS OF FACT AND CONCLUSIONS OF LAW

{¶ 135} Republic is a corporation and a person under R.C. 4906.01(A).

{¶ 136} The proposed wind-powered electric generation facility is a major utility facility under R.C. 4906.01(B)(1).

{¶ 137} On November 13, 2017, Republic filed notice of the present case and notice that a public informational meeting would be held on November 29, 2017, at the VFW Post located at 5912 East County Road 44, Green Springs, Ohio 44836.

{¶ 138} On February 2, 2018, as amended on March 27, 2018, December 26, 2018, and June 28, 2019, Republic filed its application for a certificate to site a wind-powered electric generation facility in Seneca and Sandusky counties, Ohio.

{¶ 139} On May 15, 2018, the Board notified Republic that its application had been found to be complete pursuant to Ohio Adm.Code 4906-1, et seq.

{¶ 140} On May 30, 2018, Republic filed a certificate of service of its accepted and complete application.

{¶ 141} By ALJ Entry of August 21, 2018, intervention was granted to Initial Local Residents.

{¶ 142} By ALJ Entry of August 21, 2018, intervention was granted to OFBF, Scipio Township, Adams Township, and Pleasant Township.

{¶ 143} By ALJ Entry of August 21, 2018, intervention was granted to York Township.

{¶ 144} By ALJ Entry of February 15, 2019, intervention was granted to the Additional Local Residents with the exception of Keith and Jane Fox; Randall and Louise Ladd; Jason Smith; Robert Voska; and J. Dian West, Executor of the Estate of Ellen A. Gibson.

{¶ 145} By ALJ Entry of February 15, 2019, intervention was granted to OEC and EDF.

{¶ 146} By ALJ Entry of February 15, 2019, intervention was granted to the Seneca County Commission and the Park District.

{¶ 147} By ALJ Entry of April 23, 2019, intervention was denied to Subsequent Local Residents.

{¶ 148} Pursuant to the ALJ Entry of July 18, 2018, the ALJ established the procedural schedule for this proceeding, including the local public and adjudicatory hearings.

{¶ 149} By ALJ Entry of September 4, 2018, the ALJ granted Republic's motion to suspend the procedural schedule and a stay of discovery.

{¶ 150} By ALJ Entries of February 15, 2019, March 13, 2019, April 26, 2019, August 19, 2019, and September 12, 2019, a new procedural schedule was established, including the rescheduling of the local public and adjudicatory hearings.

{¶ 151} On July 25, 2019, Staff filed its Report and Investigation of the proposed facility.

{¶ 152} A local public hearing was held on September 12, 2019, at Tiffin University, 235 Miami Street, Tiffin, Ohio.

{¶ 153} Republic filed its proofs of publication of the hearing notice on September 5, 2019.

{¶ 154} On October 18, 2019, Staff filed its Supplement to its Staff Report of Investigation.

{¶ 155} The adjudicatory hearing commenced on November 4, 2019, and it concluded on November 25, 2019, with the introduction of rebuttal testimony.

{¶ 156} Initial briefs were filed on or before December 23, 2019. Reply briefs were filed on or before January 13, 2020.

{¶ 157} On May 5, 2020, Staff filed its Second Supplement to its Staff Report of Investigation.

{¶ 158} Pursuant to the ALJ Entry of August 4, 2020, Republic's motion for the Commission to take administrative notice of ODOT's Modified Determination Letter, which was filed with the Board on March 11, 2020, was deemed to be moot. Additionally, the motions to reopen the proceeding filed by Staff on May 4, 2020, and by Local Residents on June 8, 2020, were granted for the limited purpose of updating the record on the following two narrow issues.

{¶ 159} First the ALJ directed parties to present updated evidence as a result of the issuance of a decision by the Franklin County Court of Common Pleas. *One Energy Enterprises LLC, et al., v. Ohio Dept. of Transp.*, Franklin C.P. No. 17 CV 005513 (Mar. 2, 2020). Second, the ALJ directed the parties to present evidence regarding the significance of the half-mean, inter-nest buffer distance proposed by USFWS, the existence of a newly discovered bald eagle nest referred to as the N&F Nest, the N&F Nest's proximity to the proposed turbine locations, as well as the ramifications of the N&F Nest with respect to the half-mean inter-nest buffer distance proposed by USFWS.

{¶ 160} Pursuant to the ALJ Entry of September 1, 2020, a supplemental adjudicatory hearing was held on September 30, 2020, to address the aforementioned issues.

{¶ 161} Supplemental initial briefs were filed on November 5, 2020, and November 6, 2020, and supplemental reply briefs were on November 13, 2020.

{¶ 162} The ALJs' rulings shall be affirmed as set forth in Section VI of this Order.

{¶ 163} Adequate data on the proposed facility has been provided to make the applicable determinations required by R.C. Chapter 4906, and the record evidence in this matter provides sufficient factual data to enable the Board to make an informed decision.

{¶ 164} The record establishes that the proposed facility fails to represent the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations under R.C. 4906.10(A)(3).

{¶ 165} The record fails to establish that the facility will serve the public interest, convenience, and necessity, as required under R.C. 4906.10(A)(6).

{¶ 166} Based on the record, the Board denies the application for the issuance of a Certificate of Environmental Compatibility to construct, operate, and maintain the proposed wind-powered electric generation facility in Seneca and Sandusky counties, Ohio.

X. ORDER

{¶ 167} It is, therefore,

{¶ 168} ORDERED, That Republic's requests to reverse the rulings of the ALJs be denied, as set forth in Section VII of this Order. It is, further,

{¶ 169} ORDERED, That Republic's application be denied as set forth in this Order. It is, further,

{¶ 170} ORDERED, That a copy of this Order be served upon each party of record and any other interested persons of record.

BOARD MEMBERS:

Approving:

Jenifer French, Chair
Public Utilities Commission of Ohio

Matt McClellan, Designee for Lydia Mihalik, Director
Ohio Development Services Agency

Mary Mertz, Director
Ohio Department of Natural Resources

W. Gene Phillips, Designee for Stephanie McCloud, Director
Ohio Department of Health

Drew Bergman, Designee for Laurie Stevenson, Director
Ohio Environmental Protection Agency

Sarah Huffman, Designee for Dorothy Pelanda, Director
Ohio Department of Agriculture

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Case No(s). 17-2295-EL-BGN

Summary: Opinion & Order denying the request for a certificate of environmental compatibility and public need to Republic Wind, LLC for the construction, operation, and maintenance of a proposed wind farm facility. electronically filed by Ms. Mary E Fischer on behalf of Ohio Power Siting Board