BEFORE THE OHIO POWER SITING BOARD

In the M	atter of t	he Apj	olica	tion (of SENI	ECA)	
WIND,	LLC	for	a	Cer	tificate	of)	
Environn	nental Co	mpatil	oility	and	Public N	Need)	Case No. 18-488-EL-BGN
for a V	Wind-Pov	wered	Ele	ctric	Genera	iting)	
Facility in	n Seneca	Count	v. Ol	nio.)	

DIRECT TESTIMONY OF

Peter Pawlowski Sustainable Power Group, LLC

on behalf of

Seneca Wind, LLC

August 6, 2019

- 1 Q-1. Please state your name, current title, and business address.
- 2 A-1. My name is Peter Pawlowski. I am Vice President, Wind, at Sustainable Power Group,
- 3 LLC ("sPower"), 2180 South 1300 East, Suite 600, Salt Lake City, Utah 84106.

4 Q-2. What is your educational and professional background?

- In my current position, I am responsible for sPower's wind business plan and implementation. I have held this position since 2017. In 2016, I was a manager with sPower, where I oversaw the construction of the 80-megawatt Pioneer Wind Park in Glen Rock, Wyoming. Prior to that, I worked with two renewable energy development companies. I have a Bachelor of Science in Aerospace Engineering from the University of Maryland, College Park.
- 11 Q-3. On whose behalf are you offering testimony?
- 12 **A-3.** I am testifying on behalf of the Applicant, Seneca Wind, LLC ("Seneca Wind" or "Applicant"). Seneca Wind is a wholly owned subsidiary of sPower Development Company ("sPower"). sPower is an independent renewable energy company and currently owns and operates approximately 150 solar and wind projects across the United States generating 1.3 gigawatts of clean energy.
- 17 Q-4. What is your role with respect to the Project?
- 18 **A-4.** I supervise the sPower team working on the Seneca Wind project and am directly responsible for planning and implementation of all aspects of the project's development.
- 20 Q-5. What is the purpose of your testimony?
- 21 **A-5.** The purpose of my testimony is the following:
- Provide background concerning Seneca Wind's July 16, 2018 filing of an application for a certificate of environmental compatibility and public need with the Ohio Power Siting Board ("OPSB" or "Board"), and the 1) amended application submitting Appendix E filed on July 20, 2018; 2) the subsequent Supplement to the Application filed on September 14, 2018; 3) the December 3, 2018 submittal of the aquatic resource report; 4) the January 2, 2019 Notice of Project Modifications and

1	Information Update; 5) the February 12, 2019 Notice of Project Modifications and
2	Information Update; 6) the June 6, 2019 Notice of Project Modifications and
3	Information Update; and 7) the responses to seven sets of data requests and
4	interrogatories from the Board's Staff (collectively, the "Application");

- Summarize major items in the Application and sponsor its admission into evidence along with exhibits and the various proofs of publication;
- Introduce the witnesses who will present direct testimony for the Applicant;
- Describe Seneca Wind's outreach to the community;
- Describe the economic benefits of the Project.
- Review the 50 conditions suggested by the OPSB Staff ("Staff") in the Staff Report of Investigation filed on July 3, 2019 and respond on behalf of the Applicant.
- 12 Q-6. Is the Application including all exhibits and appendices, true and accurate to the best of your knowledge?
- 14 **A-6.** Yes, they are.

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- The Application filed July 16, 2018 has been marked as Applicant Exhibit 1.
- The amended application submitting Appendix E filed on July 20, 2018 has been marked as Applicant Exhibit 1A.
- The Supplement to the Application filed on September 14, 2018 has been marked as
 Applicant Exhibit 1B.
- The December 3, 2018 submittal of the aquatic resource report has been marked as
 Applicant Exhibit 1C.
- The December 10, 2018 Errata to the Supplemental Application has been marked as
 Applicant Exhibit 1D.
- The January 2, 2019 Notice of Project Modifications and Information Update has been marked as Applicant Exhibit 1E.

1 2		• The January 25, 2019 Environmental Health and Safety Plan for Project Execution has been marked as Applicant Exhibit 1F (Confidential).
3		• The February 12, 2019 Notice of Project Modifications and Information Update has been marked as Applicant Exhibit 1G.
5 6		• The June 6, 2019 Notice of Project Modifications and Information Update; has been marked as Applicant Exhibit 1H.
7 8	Q-7.	Are Seneca Wind's responses to the interrogatories/data requests served on it by Staff true and accurate to the best of your knowledge?
9	A-7.	Yes, they are. The responses to the interrogatories/data requests from Staff have been
10		designated as the following exhibits:
11		• Applicant Exhibit 2: Response to First Set of Data Requests filed September 7, 2018.
12 13		• Applicant Exhibit 3: Response to Second Set of Data Requests filed October 25 2018.
14 15		• Applicant Exhibit 4: Response to Third Set of Data Requests filed December 14 2018.
16 17		• Applicant Exhibit 5: Response to Fourth Set of Data Requests filed December 20 2018.
18		• Applicant Exhibit 6: Response to Fifth Set of Data Requests filed January 29, 2019.
19		• Applicant Exhibit 7: Response to Sixth Set of Data Requests filed January 29, 2019.
20 21		 Applicant Exhibit 8: Response to Seventh Set of Data Requests filed January 30 2019.

Q-8.

A-8.

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officials and libraries?

Applicant Exhibit 9.

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Did Seneca Wind cause the Application to be served on various local government

Yes. The certificate of service was filed on October 22, 2018 and has been marked as

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1	Q-9.	Did Seneca Wind send a letter to property owners and tenants within the project
2		site or contiguous to the project site?

- Yes. A copy of this letter was filed with the Board on January 22, 2019 and is marked as Applicant Exhibit 10.
- Q-10. Did Seneca Wind have notices of the April 17, 2018 Public Information Meeting, the Application, and the hearings published in a newspaper of general circulation in Seneca County?
- 8 **A-10.** Yes. Proof of publication was submitted to the Board as reflected in the following exhibits:
- The proof of publication of notice of the public information meeting was filed May
 17, 2018 and is marked as Application Exhibit 11.
- The proof of publication of the application was filed December 18, 2018 and is marked as Applicant Exhibit 12.
- Q-11. Will Seneca Wind publish notice of the August 26, 2019 hearing in accordance with the Administrative Law Judge's Entry of July 8, 2019??
- 16 **A-11.** Yes.
- 17 Q-12. Are you sponsoring any other exhibits?
- 18 **A-12.** Yes. I am sponsoring the Federal Aviation Administration's Determination of No Hazard notices filed with Board. The notices filed on July 10, 2019 for the proposed wind turbines have been marked as Applicant Exhibit 13. The notices filed July 31, 2019 for the proposed meteorological towers have been marked as Applicant Exhibit 14.
- Q-13. Will Seneca Wind be sponsoring witnesses to support the Application in addition to your testimony?
- 24 **A-13.** Yes, the following witnesses will be providing testimony on behalf of Seneca Wind on the following respective topics:

14158631v1

WITNESS	SUBJECT
Peter Pawlowski Vice President Wind sPower	Application overview; Project background; Project benefits; response to local concerns; response to staff report and conditions
D. Lynn Gresock Vice President – Energy Program Tetra Tech, Inc.	Application overview; Tetra Tech studies
Jason P. Ritzert Research Biologist/Project Manager Western EcoSystems Technology, Inc.	Avian and bat studies and reports
Kevin Fowler Senior Acoustical Engineer Tetra Tech, Inc.	Noise study
Bill W. Kussmann Senior Geotechnical Engineer Barr Engineering Company	Geotechnical report
Robert J. McCunney, M.D. Brigham and Women's' Hospital Harvard Medical School	Alleged adverse health impacts of wind turbine noise and shadow flicker
Christopher Ollson, PhD Ollson Environmental Health Management	Alleged adverse health impacts of wind turbine noise and shadow flicker, and infrasound
Mike MaRous President MaRous & Company	Property values

Q-14. Would you please provide a summary and overview of the proposed facility?

A-14. Seneca Wind proposes to develop, finance, build, own and operate Seneca Wind (the "Project"), a new wind-energy facility located in Scipio, Reed, Venice, Eden, and Bloom Townships in Seneca County, Ohio. The project will consist of no more than 77 wind turbine generators with a total generating capacity of up to 212 megawatts ("MW") and annual energy production of approximately 805,000 megawatt hours ("MWh"). The Project also consists of access roads, electrical interconnection, construction staging areas, operations and maintenance facility, and the substation. Notably, the actual footprint of the facility equipment will be quite small, with only about 82 acres out of a

- project area of approximately 56,900 acres being converted for use for turbine bases, access roads, a substation and other ancillary structures.
- Q-15. The Application contains a variety of modification filings. Please describe those filings.
- 5 **A-15.** That is correct. During the investigation period, Seneca Wind made the following "Project Modification and Information Update" filings:
 - <u>January 29, 2019</u>: This filing eliminated a turbine location, increased a setback from a non-participating landowner, and upgraded an existing turbine model, which resulted in a shorter hub height and a reduction in the number of turbines to be built.
 - <u>February 12, 2019</u>: This filing shifts a turbine location to bring it in compliance with Ohio's property setback line and reduced the proposed hub height of one of the proposed turbine models.
 - <u>June 6, 2019</u>: This filing adds a new turbine model and adds the option of a lower hub-height option for one of the turbine models.
 - The modifications reflected in these filings do not create additional impacts to property owners, and in many cases reduced the level of impact. These filings were incorporated into the Application at the time of filing and were subject to the Staff's investigation of the Application.

Q-16. What is the general purpose of the facility?

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- A-16. The Project will provide electricity supply in the region and throughout the PJM Interconnection, LLC system. In doing so, the Project will utilize Ohio's natural wind resources to deliver clean, renewable energy to the existing electricity grid. The Project is sited in Seneca County because northwestern Ohio has some of the strongest wind resources in the state.
- 26 Q-17. Please describe the power generation potential of the Project.
- A-17. Each of the 77 turbines will have a nameplate capacity rating of 2.3 to 2.8 MW, depending upon the final turbine model selected. The generation out will be limited to 212 MW. The Project is expected to operate with an annual capacity factor of 43 to 46 percent, generating a total of 805,000 megawatt-hours of electricity each year.

Q-18. Please describe Seneca Wind's public information program to provide the local community information about the Project.

- **A-18.** Seneca Wind followed all of the Board's public information and public notice requirements, including hosting a public information meeting held prior to filing the Application and maintaining a website with information about the Project. However, Seneca Wind went beyond these requirements to engage the local community about the Project.
 - For example, in August 2018, Seneca Wind hosted three separate "Community Open Houses" at the Attica Fairground near the Project area. These were open for all residents, business and community stakeholders to discuss the Project, and were well attended. In advance of the open houses, Seneca Wind advertised the events in the local newspaper and through mailings to property owners and tenants in and abutting the Project area. Each open house consisted of 20 informational posters, a 15-minute presentation, a question-and-answer session (from comment cards filled out during the presentation), fact sheets, a business card with helpful informational links, and one-on-one conversations with Seneca Wind representatives.
 - In addition, Seneca Wind opened an office in Tiffin that is open to the public five days a week. Seneca Wind representatives have also attended numerous community meetings, including with the Seneca County Commissioners, local school board, and township officials.

Q-19. In your experience, what are some of the common concerns that arise during the development of a utility-scale wind generation facility?

A-19. The concerns that arise during development of a wind energy project generally are the same concerns that the residents expressed during Seneca Wind's public information program, in public written comments filed with Board, at the local public hearing held July 23, 2019, and in the formal motions to intervene of some residents. The Board's regulations are designed to address these concerns and to protect the residents' interests. It is Seneca Wind's intent also to protect the residents' interest by strictly adhering to these rules. In some instances, Seneca Wind has exceeded these protections. For example, many of Seneca Wind's studies deliberately overstate the impact of the Project

by modeling the construction of all 93 wind turbines, when only a maximum of 77 turbines will be built.

Q-20. Did you review the written public comments submitted to the docket in this proceeding?

- A-20. Yes, and I had the comments categorized. As of August 1, 2019, approximately 385 written comments had been submitted in the public docket. Of these, approximately 30% of the comments were submitted by repeat commenters. Further, many of the comments filed in this case were simultaneously filed in the dockets of other wind project, namely the Republic Wind Farm (Case No. 17-2295-EL-BGN), located in Seneca and Sandusky Counties, and the Emerson Creek Wind Farm (Case No. 18-1607-EL-BGN), located in Erie and Huron Counties.
- 12 Q-21. Please describe, generally, the subject-matter of the comments.

- **A-21.** The comments can be placed in five general categories. The following provides the proportion of the comments that fall into each category, recognizing that some commenters raised more than one issue:
 - Environmental and Health Impacts: Approximately 50% of the comments communicated concerns about environmental and health impacts from the Project. Earlier in my testimony, I identified Witness Ritzert as the expert who has assessed the impact the Project may have on birds and bats, as well as how the Project intends to mitigate any potential impacts to these animals. He explains that Seneca Wind is working directly with the United States Fish and Wildlife Service ("USFWS") and the Ohio Department of Natural Resources ("ODNR") to develop a Habitat Conservation Plan, a draft of which is expected to be provided to USFWS in August 2019. In addition, Seneca Wind intends to apply to USFWS for an Incidental Take Permit ("ITP"). Seneca Wind accepts Condition 24 that requires it to obtain a Technical Assistance Letter.
 - Similarly, Witnesses McCunney and Ollson address the alleged health effects of turbine noise and shadow flicker. Dr. McCunney provides his professional opinion that potential exposure to noise, shadow flicker, infra sound, low frequency sound

and electromagnetic fields from the Project will not lead to adverse health effects for residents. In addition, Dr. Ollson analysed various peer-reviewed studies, which he concludes do not support a correlation between wind turbine noise or shadow flicker exposure and any adverse health effects at the levels mandated by the Board's rules. Because the sound level at the exterior of non-participating homes is limited to 5 dBA over ambient nighttime average sound levels, and shadow flicker to no more than 30 hours a year, the Project will ensure the protection of neighboring residents.

- **Property Valuation**: Almost 40% of the comments expressed concerns that home values will fall as a result of the Project. However, Witness MaRous conducted a market impact appraisal analysis based upon Ohio data from which he concludes that the Project will not have a negative impact on rural residential or agricultural property values in the surrounding area. He further finds that the income received from wind turbine leases may increase the value and marketability of those properties that host turbines. Witness Gresock testifies that those lease payments will total approximately \$20 million over the Project's life.
- Aesthetics: Approximately 25% of the comments expressed concerns that the Project would detract from the rural character of the area. Witness Gresock performed a comprehensive Visual Impact Assessment of the Project. She notes that while some viewers may have adverse reactions to wind turbines, others find them graceful reflections of a trend toward renewable energy, which is a view held by at least two commenters who find the turbines calming. As noted above and discussed in more detail below, Seneca Wind believes that the Project will help preserve the agricultural nature of the area by providing farmers with a much-needed source of additional income.
- **Turbine Setbacks**: About 15% of the comments raised issues concerning the setbacks for turbines. As discussed later in my testimony, the Project will be subject to much greater property line setback distances than many other earlier projects approved by the Board and provide residents even greater protection.

14158631v1 Page | 9

¹ See, Public Comment of Donna & Delbert Morter, filed February 25, 2019.

- **Project Proponents**: Some comments expressed support for the project, including from non-participating Seneca County residents and others, noting local economic growth, benefits to the Seneca County School District, and the property rights of landowners to lease their land.²
- 5 Q-22. Did you attend the local public hearing held on July 23, 2019?
- 6 **A-22.** Yes. Approximately 55 people testified. Of these, 18 also submitted written comments to the public docket.
- Q-23. Please describe, generally, the topics raised by those testifying at the local public hearing.
- A-23. Generally, the issues raised at the local public hearing were similar to issues expressed in the public comments, above. However, I would like to respond to a number of the concerns raised at the local public hearing concerning public safety and turbine setbacks, as well as the positive benefits the project will provide to the community.

Q-24. What response do you have to public safety concerns that were raised?

- **A-24.** Public safety and minimization of impacts to the local residents are of paramount concern 15 16 and are a special focus of Project planning and design, construction, and operations. As 17 indicated in the Application, the turbines and equipment will be installed in accordance with National Fire Protection Association (NFPA) 70E code standards and integrated 18 safety systems will be incorporated in the design. The system control and data 19 20 acquisition (SCADA) system will sense when equipment operation is compromised and report conditions to the control center at the O&M building. Depending on the specific 21 condition notes, the affected turbines(s) may be immediately shut down or other action 22 taken, allowing Project maintenance personnel to respond as appropriate. 23
 - The primary public safety issues expressed at the local public hearing included concerns about turbine construction on karst formations, blade shear, and emergency flight access within the project area.

14158631v1 Page | 10

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² See, Public Comment of Katherine Meyers, filed January 15, 2019.

Karst Formations

Some members of the public raised concerns about karst features in the Project area. In particular, concerns were expressed about the potential for turbine collapse and well contamination as a result of these features.³ Project design and construction will take into consideration the potential presence of karst features, avoiding and minimizing risk to the maximum extent practicable. The Geotechnical Report, provided in Appendix I of the Application, provides a summary of the overall risk of potential karst at each investigated location. Further, additional geotechnical investigations will be conducted prior to construction to finalize foundation design in compliance with Condition 16 of the Staff Report, which Seneca Wind accepts. Witness Kussmann acknowledges the potential for karst conditions underlying some turbines, and recommends grouting to remove the potential for collapse beneath a turbine foundation. Localized grouting to fill voids from potential karst features is the industry standard method to improve subgrade conditions of both constructed and proposed structures.

Blade Shear

Others testifying expressed concern about blade shear, which is the possibility of a wind turbine tower collapsing or a rotor blade dropping or being thrown from the nacelle.⁴ While rare, such incidents have occurred, although it is not believed that any member of the public has ever been injured due to such incidents, indicating that the setbacks employed have been sufficient to protect homes and roadways. Tower collapse or blade throw might be caused by a variety of factors. For the most part, these events have been related to a control system failure leading to over-speed operation, a lightning strike, or a manufacturing defect in the blade. Technological improvements and mandatory safety standards during turbine design, manufacture, and installation have significantly reduced the instances of blade throw. Under the OPSB Staff's recommended Condition 30, we must notify the OPSB Staff within 24 hours of an occurrence of any blade shear event, to be followed up by a written report with 30 days of the event detailing the incident and

³ See, e.g., Testimony of Casey Didion, Tr, at 50-51; Testimony of Dennis Schreiner, Tr. at 62; Testimony of Joyce Ziegler, Tr. at 170; and Testimony of Dustin Austin, Tr. at 269.

⁴ See, e.g., Testimony of Jim Feasel, Tr. at 84; Testimony of Jan Sampson, Tr. at 109-111; and Testimony of Gene Thompson, Tr. at 158-159.

corrective actions to be taken to avoid, prevent, mitigate, or minimize a recurrence.⁵ We agree with this condition.

Air Ambulance

The Project's potential impact to air ambulance service was another concern raised at the local public hearing, including by longtime member of the Bloom Township Volunteer Fire Department, Kurt Lease.⁶ The Project commits to work with Life Flight to establish communication with the Project's 24-hour emergency operation center to coordinate the shutdown of turbines during medical emergencies. Once Life Flight notifies our control center of a medical emergency, the Project would initiate a stop on all turbines, which would be shut down in 90 seconds.

The Project, as required under R.C. 5727.75, will also provide proper equipment to fire and emergency responders to enable them to respond to emergencies. Notably, the Staff recommends that, prior to construction, the Project develop a plan for at least one predesignated emergency-response landing zone within the project area, which is also to be included in the Project's emergency response plan. It is sPower's customary practice to establish at least one designated landing zone during construction and the Project will accept Staff's recommendation to make the landing zone permanent.

- Q-25. Earlier, you mentioned that turbine setback requirements have been sufficient to protect homes and roadways from blade shear. Are there other purposes for mandated setback requirements in your opinion?
- A-25. Mandatory turbine setbacks clearly are intended to prevent damage from the remote possibility of blade shear and also ice throw. The setbacks also mitigate noise and shadow flicker at non-participating residences. In addition, setbacks lessen the visual impact of wind turbines for those who subjectively find them unattractive.

Q-26. What setback standards apply to this Project?

A-26. The Project must comply with the current setback standards described in Ohio Revised Code 4906.20. In part, this standard requires a setback of at least 1,125 feet from the tip

⁵ OPSB Staff Report of Investigation, at pp. 35, 63.

⁶ See, e.g., Testimony of Jason Smith, Tr. at 212; and Testimony of Kevin Lease, Tr. at 242.

of the turbine's nearest blade to adjacent property lines of nonparticipating landowners or highways. The minimum setbacks from property lines and highways for the turbine models considered for the Project would be between 1,216 and 1,334 feet. This standard reflects the most stringent setback that Ohio has had under its laws. Wind turbines built prior to 2014 were required to have setbacks of only 550 feet from the nearest property line. The new, stringent setback requirements effective in 2014 offer significantly more protection to the public from the health and safety concerns they raised.

Q-27. What positive benefits will the Project provide to the local community?

A-27. First of all, the Project will provide a positive impact to the community. As the socioeconomic study submitted as part of the Application indicates, there are various ways in which the region will benefit. The project will contribute to the taxing entities that host the project, primarily the school districts, townships, and the county. Assuming that the complete 212 MW facility is constructed, the increase in local tax revenues will be approximately \$1.91 million annually. Of this amount, a base amount of approximately \$1.28 million to \$1.7 million would be distributed among Seneca County, the affected townships, and local schools according to their respective millage. The difference between this base amount and the total \$1.91 million in revenues would go the County's general revenue fund because the Project is located in County's Alternative Energy Zone. The estimated total \$1.91 million in revenues is equivalent to 3.3 percent of total property tax revenues for all taxing jurisdictions in Seneca County, which were \$58.4 million in 2017.

Also, landowners will receive annual lease payments for hosting the facility. It is expected that a certain portion of these payments will be used to purchase goods and services in the local communities and surrounding region, which will further stimulate economic activities. Witness Gresock details economic benefits of the Project during construction and operation. The total local benefit during the 12-month construction phase is estimated to be approximately \$7.5 million, with a total annual benefit to the local economy during operation of approximately \$4.6 million.

I also believe that the Project will be especially important to enable the area to maintain its rural character and support its local farmers. As a host of a renewable energy project,

Seneca County farmers will be able to use their land to provide clean, domestic energy for the region, while creating a new and predictable revenue stream for their farming businesses. It is my understanding that farmers across Ohio have had an especially difficult year as a result of heavy rains during the planting season. According to data published by the Ohio Farm Bureau Federation, only half of the state's corn has been planted and just over 30% of soybeans sowed. In fact, by letter of June 19, 2019, Ohio's Congressional delegation requested the US Department of Agriculture ("USDA") to provide disaster relief to Ohio's farmers devastated by historical rainfall, flooding and tornados. Attachment PP-1. On July 2, 2019, the Secretary of the USDA declared Seneca County to be one of five Ohio counties designated as primary natural disaster areas due to excessive rainfall. The designation makes farmers eligible for emergency assistance. Attachment PP-2. The Project will provide an important and stable source of income for farmers in Seneca County, providing \$20 million in lease payments to landowners over the life of the Project.

- 15 Q-28. Have you reviewed the Staff Report of Investigation in this proceeding?
- **A-28.** Yes.

- 17 Q-29. What is Staff's recommendation?
- A-29. Staff made an "initial" determination and an "alternative" recommendation. Staff "initially" recommended that a certificate not be issued for the proposed facility. In the alternative Staff recommends that, if the Board should choose to issue a certificate for the facility, it should adopt Staff's 50 recommended conditions to the certificate.

STAFF'S INITIAL RECOMMENDATION

- 23 Q-30. Please describe Staff's initial recommendation.
- A-30. Staff "initially" recommended that a certificate not be issued for the facility. The basis for this initial recommendation was that, when Staff issued its Report on July 3, 2019, neither the Federal Aviation Administration ("FAA") nor the Ohio Department of Transportation Office of Aviation ("ODOT OA") had issued a determination that the

⁷ https://ofbf.org/2019/06/14/ohio-fsa-requests-disaster-declarations/

Project was compliant with their regulations. As a result, Staff was prevented from finding that the facility satisfied the aviation components of R.C. 4906.10(A)(3) and (5).

Staff "initially" recommended denial of the facility "[u]ntil the FAA and ODOT [OA] are able to complete their analysis and Staff is subsequently able to analyze the studies' results."

Q-31. Did the FAA issue determinations with respect to the Project's proposed turbines since the date the Staff Report was filed?

A-31. Yes, the FAA issued notices of Determination of No Hazard ("DNH") with respect to the Project's turbines on July 5, 2019. Seneca Wind presented the FAA's notices to Staff on July 9, 2019 and filed them in this docket on July 10, 2019 (Applicant Exhibit 13). The FAA issued a DNH notice with respect to each of the 93 turbines that potentially could be constructed as a part of the facility, conditioning the structures' construction and operation only on appropriate marking and lighting. The FAA's technical analysis of each turbine location concluded that the proposed turbines "would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace or operation of air navigation facilities." In reaching this conclusion, the FAA made a number of specific findings, including:

- The turbines will have no significant adverse effect on aircraft arrival, departure, and en route procedures. 10
- No impact on any planned public-use airports and aeronautical facilities. 11
- The United States Department of Defense determined that the project would not create a substantial adverse effect on their operations at this time. 12
- No cumulative impact resulting from the turbines when combined with the impact of other existing or proposed structures.¹³

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⁸ Staff Report at pp 44-45.

⁹ See, e.g., *Determination of No Hazard to Air Navigation for Turbine 11*, at p.1, issued on July 5, 2019 and filed with the Ohio Power Siting Board on July 10, 2019.

¹⁰ *Id.* at p. 10

¹¹ *Id*.

¹² *Id*.

¹³ *Id*.

- The proposed turbines do not create a substantial adverse impact to nearby radar operations. ¹⁴
- The DNH notices were to become final on August 14, 2019, prior to the adjudicatory hearing scheduled to begin August 26, 2019.

O-32. Did the FAA also issue determinations with respect to the Project's proposed meteorological towers since the date the Staff Report was filed?

A-32. Yes. The FAA also issued DNH notices with respect to the Project's six meteorological towers on July 22, 2019. Seneca Wind presented the FAA's notices to Staff on July 25, 2019 and filed them in this docket on July 31, 2019 (Applicant Exhibit 14). The structures construction and operation were conditioned only upon appropriate marking and lighting. These DNH notices are to become final on August 31, 2019, absent further review by the FAA

Q-33. In practical terms, what does a DNH notice mean?

A-33. It means that the FAA has determined that the turbines and towers it analyzed do not obstruct air navigation and may be constructed and operated consistent with FAA guidelines.

O-34. Has ODOT OA issued its final determination?

A-34. ODOT has not issued its final determination. It issued a preliminary letter to Staff dated 18 December 26, 2018, in which it stated it had "not yet determined if the proposed 19 20 development will or will not constitute an obstruction to air navigation." ("Preliminary Letter"). Attachment PP-3. The Preliminary Letter stresses the need for the FAA first to 21 22 analyze the potential impacts of the facility on air navigation before ODOT OA makes its determination. In addition, the Staff Report notes that ODOT OA will issue an updated 23 24 letter after it receives the FAA's final determination, which ODOT OA considers to be "an essential piece" for its review. 25

¹⁴ *Id*.

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Q-35. You mentioned that the DNH notices for the 93 turbines "were" to become final on August 14, 2019. Is that still the case?

A-35. No. After the DNHs were issued, Seneca Wind learned that its aviation consultant 3 inadvertently misidentified a nearby municipality as "Bloomfield" instead of 4 "Bloomville" when submitting project information and the aeronautical study to FAA for 5 The FAA subsequently missed this error when issuing notices for public 6 comment prior to the issuance of the DNHs. Seneca Wind immediately brought these 7 errors to the FAA's attention. On August 3, 2019, the FAA informed Seneca Wind that 8 the issued DNHs were to be terminated and refiled immediately. To ensure that 9 opportunity for public comment was not adversely affected, the FAA terminated the 10 existing DNHs in order for the notice and public comment period to be reopened. The 11 12 termination of the DNHs is solely to correct a potential public notice error. underlying aeronautical study and technical analysis is unaffected. Seneca Wind fully 13 expects that all DNHs will be reissued by the FAA, and that the FAA will do so in an 14 15 expedited manner.

16 Q-36. Has FAA terminated the DNHs for the six meteorological towers?

17 **A-36.** No. The applications to FAA for approval of the six meteorological towers were separate from the applications for the turbines. The DNH determinations remain in effect for the meteorological towers and are to become final August 31, 2019.

Q-37. What is your understanding of Staff's "initial" recommendation?

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A-37. I understand that Staff's "initial" recommendation that a certificate be denied was based only upon the absence of the FAA's and ODOT OA's determinations on the date the Staff Report was issued. I understand the recommendation would change, and Staff would support granting a certificate if (1) the FAA issues its DNH notices and (2) ODOT OA, in reliance on the FAA's report as an "essential piece of its review," issues an updated letter finding no obstruction to air navigation.

Q-38. Does the FAA's procedural termination of the 93 DNH determinations affect your understanding?

- A-38. Absolutely not. In my opinion, the only issue presented by the procedural termination is one of timing. FAA has made the merit determination that the proposed 93 wind turbines do not impose a hazard to air navigation. Seneca Wind has every reason to expect that FAA will expeditiously affirm that determination upon correction of the apparent defect in notice.
- Q-39. You mention that the only issue raised by the FAA's procedural termination of the DNH notices is one of timing. What has Seneca Wind done to address this issue?
- 10 A-39. Under these unique circumstances, Seneca Wind has asked the Board to suspend the procedural schedule in this proceeding to provide the FAA ample time to correct the 11 12 technical notice deficiency. Under the current procedural schedule, Seneca Wind reasonably expected that the FAA's and ODOT OA's determinations of no hazard to air 13 14 navigation would be made by the commencement of hearing on August 26, 2019. Seneca Wind did not learn of FAA's determination until August 3, 2019, and the FAA will be 15 unable to reissue the DNH notices prior to hearing and, possibly, prior to the issuance of 16 the Board's order. Seneca Wind's motion to suspend the procedural schedule pending 17 reissuance of the FAA's notice could not be filed until Tuesday, August 6, 2019. 18 Unfortunately, this testimony was required to be filed August 6, 2019, without the benefit 19 of the Board's decision on the motion to suspend the procedural schedule. 20
- Q-40. In your opinion, what effect would the FAA and ODOT OA's findings of no obstruction to air navigation have on the Staff Report's proposed conditions?
- A-40. As I discuss later in my testimony, Conditions 42, 44, 45 and 46 recommend that various turbines and meteorological towers not be constructed. The FAA DNH notices and an updated ODOT OA letter that finds no obstruction to air navigation would eliminate the need for these conditions.

STAFF'S ALTERNATIVE RECOMMENDATION AND THE PROPOSED

2 CONDITIONS TO THE APPLICATION

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- 3 Q-41. You previously stated that the Staff Report also makes an "alternative" recommendation. Please describe it.
- A-41. Yes. Under the assumption that Staff would not receive the final FAA and ODOT OA determinations, the Staff Report provides that, if the Board should choose to issue a certificate for the facility, it should adopt Staff's 50 recommended conditions to the certificate. Staff recognizes that these conditions may be modified upon receipt of subsequent input. I will discuss the conditions that Seneca Wind proposes to be modified based upon additional input. The conditions generally are categorized as those related to aviation, communications, noise, setbacks, and avian, bat and wildlife.

Aviation

- Q-42. If FAA re-issues DNH notices for all turbines and the DNH determinations for the turbines and permanent meteorological towers become final, what effect should this additional input have on Conditions 42, 44, 45, and 46?
- **A-42.** Condition 42 states that 10 turbines (Turbines 1, 2, 3, 4, 5, 6, 7, 8, 70, and 71) should not 16 be constructed because they are within 3 nautical miles of the Seneca County Airport. 17 Condition 44 provides that Turbines 77 and 84 should not be constructed because they 18 impact an approach to the airport. Condition 46 states that a permanent meteorological 19 tower should not be constructed because it is within 3 nautical miles of the Seneca 20 County Airport. These conditions are based on ODOT OA's Preliminary Letter. The 21 22 Preliminary Letter acknowledges that the review undertaken was "preliminary, cursory, and incomplete." In addition, the Preliminary Letter acknowledges that the relation of 23 these proposed turbines and tower to the airport requires only that their potential impact 24 be analyzed further by the FAA, not that they should be eliminated from the Project. 25 Because FAA has issued DNH notices with respect to the meteorological towers, and has 26 completed a merit review that supported the issuance of DNH notices for the Project's 27 28 wind turbines (which is likely to be affirmed expeditiously), the condition that they not be constructed should be removed. Instead, Seneca Wind requests that the Board 29 30 condition construction of these turbines and towers upon receipt of final DNH notices

and an updated determination by ODOT OA that construction of the turbines and towers are compliant with its applicable regulations.

Q-43. Do you have any comment with respect to Condition 45?

4 **A-43.** Yes. Condition 45 states that none of the permanent meteorological towers should be constructed because "Applicant does not currently have the FAA authorization." As I stated previously, the FAA issued DNH notices for each of the towers on July 22, 2019, after the Staff Report was issued. For that reason, Condition 45 should be removed.

8 Q-44. Does Seneca Wind have additional input to offer regarding Condition 43?

A-44. Yes. Condition 43 provides that Turbines 59, 71, and 85 should not be constructed 9 10 because the locations provided do not have an aeronautical study or the FAA The locations of these turbines were altered to comply with OPSB 11 authorization. requirements after Seneca Wind had filed documents for their approval with the FAA. 12 13 Seneca Wind has applied to the FAA for new aeronautical studies for the turbines' new locations. Because Seneca Wind has made application to the FAA, Condition 43 should 14 be eliminated. Seneca Wind will comply with Condition 40, which requires it to meet the 15 16 FAA construction requirements, and Condition 41, which requires it to file DNH notices regarding the turbines and towers 30 days before the preconstruction conference. 17

Communications

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- Q-45. Condition 31 states that Seneca Wind should not construct Turbines 80 and 89 as proposed, because they would interfere with known existing microwave paths. Do you have additional input to support a modification to this condition?
- 22 **A-45.** Yes. Seneca Wind witness Gresock explains that, if turbines 80 and 89 are two of the 77 turbines chosen for construction, Seneca Wind will give additional consideration to the need for mitigation, including working with the microwave path owner to develop a mutually agreeable mitigation. However, because the turbines were modeled at a 134-meter hub height, and now will be either 114 meters (if GE turbines are selected) or 109 meters (if SG turbines are selected) in height, it is likely these impacts would be eliminated.

Q-46. Based upon this additional input, how does Seneca Wind propose that this condition be modified?

A-46. I note that Condition 38 requires Seneca Wind to complete and submit to Staff a 3 comprehensive microwave path study that identifies all existing microwave paths and to 4 describe the impacts the Project will have on all paths and systems considered in the 5 study. Further, Condition 39 obligates Seneca Wind to complete avoidance or mitigation 6 prior to commencement of construction of the Project. Condition 31 should be 7 eliminated, and turbines 80 and 89, with their modified, lower heights, be included in the 8 comprehensive survey required by Condition 38 and be subject to the initial and ongoing 9 avoidance and mitigation requirements of Condition 39. 10

Setbacks

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- Q-47. Condition 33 recommends that turbine 77 not be constructed as proposed, because it does not meet the setback requirements near an electric transmission line. How do you respond?
- A-47. Pursuant to O.A.C. 4906-1-01(I), the Board defines a "transmission line" as "an electric power line that has a design capacity of one hundred twenty-five kilovolts or more."

 Based on this definition, it is my understanding that the setback requirement applies to electric power lines that have a design capacity of 125kV or more. The Staff Report identifies the transmission line at issue as the "AEP Bloomville-Republic 69kV electric line (characterized as a transmission line by AEP)." Because the AEP electric line is only 69kV, Seneca Wind requests that Condition 33 be removed.

Noise

- Q-48. Condition 36 would require Seneca Wind, at least 30 days prior to construction, to "submit a noise study showing that cumulative nighttime sound levels will not exceed 44 dBA at any non-participating sensitive receptor." Do you agree with this condition?
- A-48. Seneca Wind does not oppose submitting a noise study within the time frame suggested; however, a single sound level limitation of 44 dBA is not accurate. Seneca Wind used three wind turbine models to estimate the potential noise impact of the Project, each with different critical wind speeds. As a result, three ambient noise levels were developed. The noise study shows that for each critical wind speed no nonparticipating sensitive

receptors would be impacted with noise levels 5 dBA over the project area ambient nighttime average sound level. Because it is not yet known what turbine models will be constructed for the Project, Seneca Wind proposes that Condition 36 be modified as follows:

At least 30 days prior to construction, the Applicant shall submit a noise study showing that the facility shall be operated so that the cumulative nighttime sound level at any nonparticipating sensitive receptor within one mile of the project boundary will not exceed 5 dBA over the project area ambient nighttime average sound level (Leq) at the critical wind speed for the turbine(s) chosen by the Applicant, except during daytime operation that is in accordance with Ohio Adm.Code 4906-4-09(F)(2).

Avian, Bat and Wildlife

- Q-49. Condition 20 requires Seneca Wind to submit a post-construction avian and bat monitory plan to OPSB Staff and the ODNR Division of Wildlife sixty days prior to the first turbine becoming operational. The condition provides that the "plan shall be consistent with Ohio ODNR-approved, standardized protocol, as outlined in ODNR's On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio. This includes having a sample of turbines that are searched daily." Does Seneca Wind propose modifications to this condition?
- A-49. Yes. Witness Ritzert testifies that Seneca Wind has agreed to submit a Post-Construction
 Avian and Bat Monitoring Plan ("PCMP") that will be consistent with all applicable
 guidelines, including USFWS' Land-Based Wind Energy Guidelines ("WEG").
 According to Witness Ritzert, daily searches generally are not required, in the first
 instance, in the WEG, which USFWS uses to develop PCMPs. For these reasons, Seneca
 Wind proposes that the condition be modified as follows:

Sixty days prior to the first turbine becoming operational, the Applicant shall submit a post-construction avian and bat monitoring plan for Ohio Department of Natural Resources (ODNR) Division of Wildlife (DOW) and Staff review and confirmation that it complies with this condition. The Applicant's plan shall be consistent with Ohio ODNR-approved, standardized protocols, such as those outlined in ODNR's On-Shore Bird and Bat Pre- and Post-Construction Monitoring Protocol for Commercial Wind Energy Facilities in Ohio and the Land-Based Wind Energy Guidelines (WEG). This includes having a sample of turbines that are searched daily. Collectors of bird and bat carcasses for the purpose of post-

construction monitoring shall obtain the appropriate carcass collection permits. The post construction monitoring shall begin within two weeks of **operation of the first turbine commercial operations of the project** and be conducted for a minimum of two seasons (April 1 through November 15), which may be split between calendar years. If monitoring is initiated after April and before November 15, then portions of the first season of monitoring shall extend into the second calendar year (e.g., start monitoring on July 1, 2019 and continue to November 15, 2019; resume monitoring April 1, 2020 and continue to June 30, 2020). The second monitoring season may be waived at the discretion of ODNR and Staff. The monitoring start date and reporting deadlines will be provided in the DOW approval letter.

Q-50. Do you propose modifications to Condition 21?

A-50. Yes. Seneca Wind proposes that the condition be modified to read:

The Applicant shall contact Staff, ODNR, and the USFWS within 24 hours if state of federal listed species are encountered during construction, operation, or monitoring activities. Activities that could adversely impact the identified plants or animals shall be immediately halted until an appropriate course of action has been agreed upon by the Applicant, Staff and the appropriate agencies. If the species leaves the impact area under its own power, Seneca Wind may reinstate the activities at that time, as long as an environmental monitor is present.

Q-51. Why do you recommend this modification?

A-51. The modification maintains the protections necessary to avoid impacts to state or federal listed species. However, as a matter of practicality, it allows activities to resume in due course when a listed species is encountered, but then leaves the area on its own accord, which can be confirmed by the monitor.

Q-52. Do you propose modifications to Condition 22?

A-52. Yes. Generally, the condition provides that OPSB Staff and ODNR, in conjunction with USFWS, will contact Seneca Wind if they discover a significant adverse impact to "wild animals," and requires Seneca Wind to implement mitigation practices. Seneca Wind's only objection is with the term "wild animals." Seneca Wind proposes that the condition be modified to clarify the type of wildlife (i.e., listed or special status) that this condition is intended to address:

During construction of the facility, if OPSB Staff and the ODNR, in consultation with the USFWS, determine the project results in significant adverse impact to wild animals state and/or federal threatened or endangered or other special-status wildlife species, ODNR and OPSB Staff will notify the Applicant. Thereafter as soon as possible and no longer than 30 days after receiving notification of the significant adverse impact, the Applicant shall implement practices to rectify the significant adverse impact, which will include development and submission of a mitigation plan or adaptive management strategy to OPSB Staff and the ODNR for review to confirm compliance with this condition. Activities that could adversely impact the identified animals wildlife species shall be modified to minimize risk until the mitigation plan or adaptive management strategy is agreed upon.

Q-53. Do you have suggested modifications to Condition 25?

A-53. Yes. Seneca Wind proposes the following modification:

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

- (a) Avoid the area determined to be suitable habitat along with an appropriate buffer determined by the ODNR.
- (b) Obtain an ODNR-approved herpetologist to conduct a presence/absence survey. If either species is determined to be present, the Applicant shall continue to coordinate with ODNR to assure that impacts are avoided or mitigate per agreed-upon methods.
- (c) Obtain an ODNR-approved herpetologist to develop and implement an avoidance/minimization plan.
- (d) The Applicant shall conduct no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat

Q-54. Why do you propose this modification?

A-54. The added language clarifies that mitigation is an appropriate option, as originally recognized in subsection (c).

- Q-55. Conditions 26, 27, and 28 each recommends that construction in certain avian species' "preferred nesting habitat types" be avoided during certain periods of time.
 Do you propose modifications to these conditions?
- **A-55.** Yes. The proposed condition to avoid construction in the "preferred nesting habitat type" 4 5 is unnecessarily onerous because the suitable habitat for these species (upland sandpiper, northern harrier, and loggerhead shrike) includes agricultural habitats that are ubiquitous 6 in the region (comprising 94% of the 56,900-acre Project area). In addition, Witness 7 Ritzert explains that the upland sandpiper and loggerhead shrike were never observed 8 9 during avian use surveys, and the northern harrier is not expected to nest in the area, as noted in the Staff Report. Avoidance of all suitable habitat during the nesting periods for 10 each of the three species would irreparably and unnecessarily harm the Project by 11 disallowing construction during a significant portion of the construction season, when 12 such prohibition is not necessary in order to protect the species at issue. Further, as 13 Witness Ritzert explains, pre-construction clearance surveys for nesting birds will be 14 conducted, and any active nests of migratory birds, including state and federal listed 15 species, will be avoided. Seneca Wind proposes the following modifications: 16
 - (26) Construction in upland sandpiper **preferred** documented nesting habitat types shall be avoided during the species' nesting period of April 15 through July 31, unless coordination with the ODNR allows a different course of action.
 - (27) Construction in northern harrier **preferred documented** nesting habitat **types** shall be avoided during the species' nesting period of May 15 through August 1, unless coordination with the ODNR allows a different course of action.
 - (28) Construction in loggerhead shrike **preferred** documented nesting habitat **types** shall be avoided during the species' nesting period of April 1 through August 1, unless coordination with the ODNR allows a different course of action.

Q-56. Do you have any other comments to the Staff Report?

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30 **A-56.** Yes. At page 9 of its report, Staff requests an updated construction schedule. The schedule is attached as Attachment PP-4. Seneca Wind does not oppose the other conditions to the certificate that Staff recommends.

- 1 Q-57. Does this conclude your testimony?
- 2 A-57. Yes, it does, except that I reserve the right to update this testimony to respond to any
- 3 further testimony in this case

CERTIFICATE OF SERVICE

I hereby certify that the foregoing Direct Testimony of Peter Pawlowski was served upon the following parties of record via regular or electronic mail this $\underline{6}^{th}$ day of August 2019.

Devin D. Parram

jstock@beneschlaw.com

cendsley@ofbf.org

lcurtis@ofbf.org

amilam@ofbf.org

jclark@senecapros.org

jvankley@vankleywalker.com

cwalker@vankleywalker.com

SShuff@foreignjourneys.com

abauer@ohioedlaw.com

werner.margard@ohioattorneygeneral.gov

Congress of the United States Washington, DC 20515

June 19, 2019

The Honorable Sonny Perdue Secretary U.S. Department of Agriculture 1400 Independence Ave., S.W. Washington, DC 20250

Dear Secretary Perdue,

We the Members of the Ohio Congressional delegation write to bring to your attention the destructive impact recent natural disasters have had on Ohioans and to request that recently approved disaster relief resources be used to assist Ohio farmers. Specifically, we ask that the Department increase the prevent planting payment rate to 90% for Midwestern farmers unable to plant because of flooding.

On June 6, 2019, President Trump signed into law supplemental appropriations for disaster relief, allowing prevent planting payment assistance for farmers who have incurred losses because of natural disasters. As you consider the eligibility criteria for the \$3,005,442,000 appropriated by Congress to assist farmers, we ask that you keep in mind the countless Ohio families and farmers that have been devastated by historic rainfall, flooding, and tornadoes over the last month. On June 18, President Trump issued a Presidential Disaster Declaration for 10 Ohio counties effected by these severe storms, and we hope that USDA will also make disaster assistance funds available to Ohioans as FEMA has already done.

Across the Midwest, heavy rainfall has caused floods that have prevented farmers from tilling and planting on their land. This will lead to considerable losses in production as the planting season closes. Ohio farms account for more than 14 million acres of land and a large portion of the country's source of corn, wheat, and soybeans. These farms face heavy losses and possible bankruptcy if nothing is done to assist them.

Last year, Ohio farmers planted 90% of their planned corn acreage by the end of May. By the same time this year, Ohio farmers have only planted 38% of their anticipated corn acreage. These devastatingly low averages demonstrate the dire impact of current conditions on Midwestern farmers. This is the most delayed planting start in over 40 years. The economic strain on farms across the Midwest will be overwhelming.

In addition to flooding, Ohioans have seen 36 tornadoes that created a path of destruction—leaving tens of thousands without power and destroying hundreds of homes. These natural disasters have left Ohio farmers with few options. With severe weather crippling Ohio farms, families and communities, we strongly encourage you to use disaster aid to assist Ohio farmers.

Sincerely,

Warren Davidson

Member of Congress

Bob Gibbs

Member of Congress

Congress of the United States

Washington,	DC 20515
Marcy Kaptur Member of Congress	Michael R. Turner Member of Congress
Bill Johnson Member of Congress	Troy Balderson Member of Congress
Jim Jordan Member of Congress	Daylo P. Joyce Member of Congress
Brad Wenstrup Member of Congress	Marcia Fudge Member of Congress
Joyce Beatty Member of Congress	Robert E. Latta Member of Congress
Stove Chalat Steve Chabot Member of Congress	Anthony Gonzalez Member of Congress
Tim Ryan	Steve Stivers

Member of Congress

Member of Congress



United States Department of Agriculture

Office of the Secretary Washington, D.C. 20250

JUL 2 5 2019

The Honorable Mike DeWine Governor State of Ohio Columbus, Ohio 43215

Dear Governor DeWine:

On June 28, 2019, and July 3, 2019, the Ohio State Executive Director of the Farm Service Agency (FSA), U.S. Department of Agriculture (USDA), requested a primary county disaster designation for seven Ohio counties due to losses caused by multiple disasters that occurred during the 2019 crop year.

USDA reviewed the Loss Assessment Reports and determined that there were sufficient production losses to warrant a Secretarial natural disaster designation; therefore, I am designating seven Ohio counties as primary natural disaster areas, in two separate disaster designations. In accordance with section 321(a) of the Consolidated Farm and Rural Development Act, additional areas of your state and an adjacent state are named as contiguous disaster counties. Enclosed you will find documentation that provides a detailed list of all primary and contiguous counties impacted by these disasters.

A Secretarial disaster designation makes farm operators in primary counties and those counties contiguous to such primary counties eligible to be considered for certain assistance from FSA, provided eligibility requirements are met. This assistance includes FSA emergency loans. Farmers in eligible counties have 8 months from the date of a Secretarial disaster declaration to apply for emergency loans. FSA considers each emergency loan application on its own merits, taking into account the extent of production losses on the farm and the security and repayment ability of the operator.

Local FSA offices can provide affected farmers with further information.

Sincerely, Comment Leave

Sonny Perdue

Secretary

Enclosure

Disaster Designation Areas for Ohio and a Contiguous State

Designation Number 1: The combined effects of excessive rain, flash flooding, flooding, excessive moisture, and extreme precipitation events that occurred during November 11, 2018, and continuing:

Primary Counties:

Ohio	(5)			777 . 1.4
Auglaize	Paulding	Seneca	Wood	Wyandot

Contiguous Counties:

Ohio	(16)		
Allen	Hardin	Lucas	Putnam
Crawford	Henry	Marion	Sandusky
Defiance	Huron	Mercer	Shelby
Hancock	Logan	Ottawa	Van Wert

Contiguous County in an Adjacent State:

Indiana (1) Allen

Designation Number 2: The combined effects of freeze, high winds, extreme cold, and the polar vortex that occurred during January 20 through April 30, 2019:

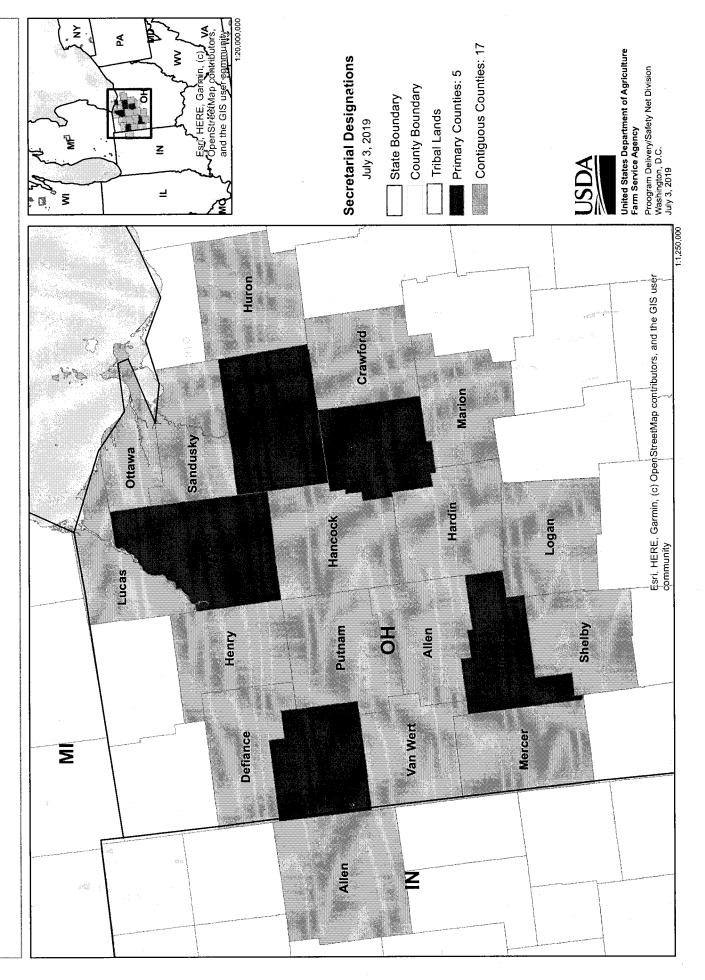
Primary Counties:

Ohio (2) Ottawa Sandusky

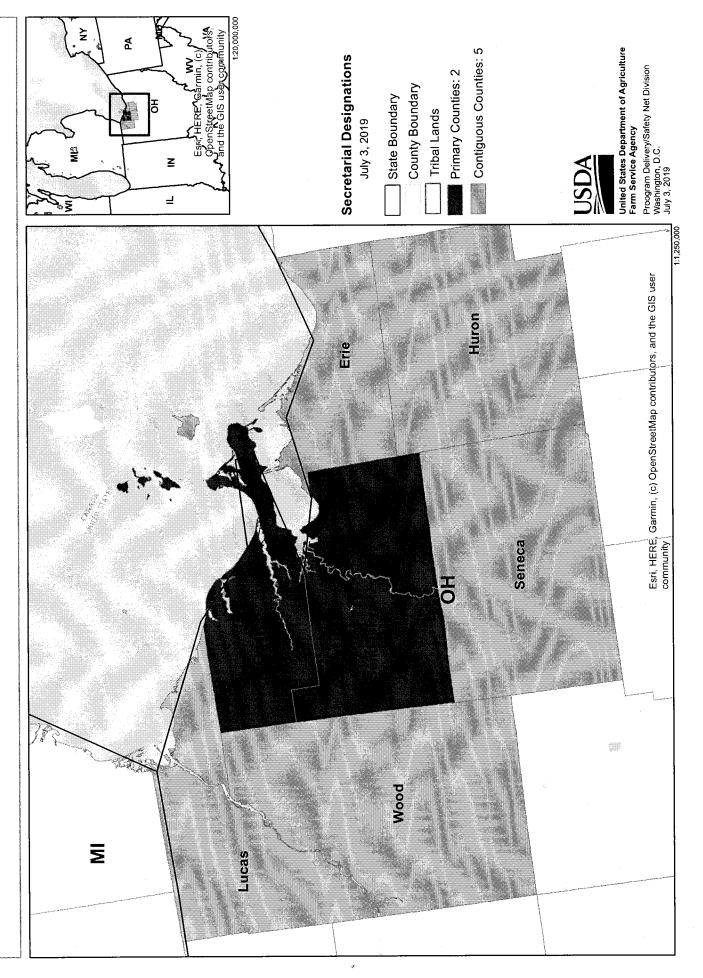
Contiguous Counties:

Ohio (5)
Erie Huron Lucas Seneca Wood

2019 Secretarial Declaration: OH 2019-07-03-328518 - Disaster #1



2019 Secretarial Declaration: OH 2019-07-03-328518 - Disaster #2





OHIO DEPARTMENT OF TRANSPORTATION

John R. Kasich, Governor

Jerry Wray, Director

Office of Aviation 2829 West Dublin-Granville Rd. Columbus, OH 43235 614-793-5040 transportation.ohio.gov

December 26, 2018

Andrew Conway, P.E.
Public Utilities Commission of Ohio
Rates and Analysis Department
Siting, Efficiency, and Renewable Energy Division
180 East Broad Street
Columbus. Ohio 43215

Sent via electronic mail: Andrew.Conway@puco.ohio.gov

Subject: Application for certification of Seneca Wind Farm Project (Case No. 18-0488-EL-BGN)

Dear Mr. Conway,

Pursuant to Ohio Revised Code §4561.341, the Ohio Department of Transportation, Office of Aviation has reviewed the application for certification submitted by Seneca Wind Farm in order to determine whether the facility will constitute an obstruction to air space. Our office performed a cursory review of one hundred and two (102) aeronautical studies for the subject Case, which includes the ninety-six (96) permanent wind turbine structures and six (6) meteorological observation towers. The structures have been assigned FAA and ODOT aeronautical study numbers (ASNs) as detailed on the attached chart. The applicant filed notice with the FAA on June 20, 2018, however the status remains a work in progress and no determinations have been issued by the FAA as of the date of this letter. As such, the review performed by our office is preliminary, cursory and incomplete. Any changes to the proposed locations or structure heights as a result of FAA review may require additional review by the Office of Aviation.

The location and height of 86 of the 96 wind turbine structures would exceed 499 ft above ground level and would constitute an obstruction to air navigation by exceeding the 14 C.F.R. Part 77.17(a)(1) surface by 157 feet. The location and height of 10 of the 96 wind turbine structures and 1 of the 6 MET towers would exceed the 14 C.F.R. Part 77.17(a)(2) surface of the Seneca County Airport (16G).

Impacts to the minimum obstacle clearance altitude or minimum vectoring altitude of various en route airways or arrival procedures, in addition to any impacts to approach or departure procedures to any public use airport, all of which are 14 C.F.R. Part 77.17(a)(3) impacts, are currently unknown. All potential impacts must be analyzed by the FAA. Changes to flight procedures or adjustments in height or location of proposed structures must be identified and agreed upon before final recommendation can be made by our office.

Our office would appreciate the opportunity to engage the aviation stakeholders throughout the state and solicit their input as part of the public comment period of the FAA process. Due to the current status of the FAA aeronautical studies, impacts to the flying public have not been determined and a public comment period has not yet taken place. This is an essential step and should not be bypassed in determining the impacts to the navigable airspace in Ohio.

Based upon the above, the Office of Aviation has not yet determined if the proposed development will or will not constitute an obstruction to air navigation.

If you have any questions regarding this review and determination, please do not hesitate to contact our office.

Respectfully,

ODOT Office of Aviation 2829 W. Dublin Granville Road Columbus, OH 43235

Attach: Seneca Wind Summary

Seneca Wind Farm (OPSB Case No. 18-0488-EL-BGN)

			Seneca Wind Fa	rm (OPSB Case No. 18				
	ODOT ASN	FAA ASN	Structure Type	FAA Status	Structure Height	Sturucture Height	Latitude	Longitude
\rightarrow					(AGL)	_(AMSL)		
1	2018-DOT-3973-OE	2018-WTE-5597-OE	Wind Turbine	Work In Progress	455	1380	41-05-29.19N	83-01-16.82W
2	2018-DOT-3974-OE	2018-WTE-5598-OE	Wind Turbine	Work In Progress	490	1399	41-06-51.45N	82-58-03.82W
3	2018-DOT-3975-OE	2018-WTE-5599-OE	Wind Turbine	Work In Progress	499	1396	41-08-07.09N	82-55-00.19W
4	2018-DOT-3976-OE	2018-WTE-5600-OE	Wind Turbine	Work In Progress	499	1407	40-59-50.04N	83-04-44.61W
5	2018-DOT-3977-OE	2018-WTE-5601-OE	Wind Turbine	Work in Progress	499	1440	41-04-37.00N	82-50-50.05W
6	2018-DOT-3978-OE	2018-WTE-5602-OE	Wind Turbine	Work In Progress	499	1442	41-05-54.96N	82-58-20.34W
7	2018-DOT-3979-OE	2018-WTE-5603-OE	Wind Turbine	Work In Progress	499	1452	41-05-10.16N	82-56-03.28W
-								
8	2018-DOT-3980-OE	2018-WTE-5604-OE	Wind Turbine	Work In Progress	499	1362	41-01-41.33N	83-04-46.72W
9	2018-DOT-3981-OE	2018-WTE-5605-OE	Wind Turbine	Work in Progress	499	1447	41-05-56.84N	82-55-26.54W
10	2018-DOT-3982-OE	2018-WTE-5606-OE	Wind Turbine	Work in Progress	499	1469	41-04-34.58N	82-52-15.22W
11	2018-DOT-3983-OE	2018-WTE-5607-OE	Wind Turbine	Work in Progress	656	1610	41-04-34.55N	82-53-21.36W
12	2018-DOT-3984-OE	2018-WTE-S608-OE	Wind Turbine	Work In Progress	656	1616	41-03-35.22N	82-50-12.48W
13	2018-DOT-3985-OE	2018-WTE-5609-OE	Wind Turbine	Work In Progress	656	1564	41-07-43.91N	82-54-52.80W
14	2018-DOT-3986-OE				656	1570	41-03-47.07N	83-02-14.64W
		2018-WTE-5610-OE	Wind Turbine	Work In Progress				
15	2018-DOT-3987-OE	2018-WTE-5611-OE	Wind Turbine	Work In Progress	656	1583	41-04-16.84N	83-02-23.92W
16	2018-DOT-3988-OE	2018-WTE-5612-OE	Wind Turbine	Work In Progress	656	1585	41-02-36.65N	83-01-31.24W
17	2018-DOT-3989-OE	2018-WTE-5613-OE	Wind Turbine	Work In Progress	656	1600	41-05-04.64N	82-54-18.34W
18	2018-DOT-3990-OE	2018-WTE-5614-OE	Wind Turbine	Work In Progress	656	1590	41-06-01.97N	82-53-43.48W
19	2018-DOT-3991-OE	2018-WTE-5615-OE	Wind Turbine	Work In Progress	656	1581	41-02-30.74N	83-02-52.16W
20	2018-DOT-3992-OE	2018-WTE-5616-OE	Wind Turbine	Work In Progress	656	1599	41-04-10.58N	82-50-14.39W
21	2018-DOT-3993-OE	2018-WTE-5617-OE	Wind Turbine	Work In Progress	656	1580	41-06-49.52N	82-57-11.23W
22	2018-DOT-3994-OE	2018-WTE-5618-OE	Wind Turbine	Work In Progress	656	1624	41-05-04.80N	82-55-03.40W
				Work In Progress		1607	41-05-59.38N	82-56-07.11W
23	2018-DOT-3995-OE	2018-WTE-5619-OE	Wind Turbine		656			
24	2018-DOT-3996-OE	2018-WTE-5620-OE	Wind Turbine	Work in Progress	656	1608	41-03-50.04N	82-50-14.93W
25	2018-DOT-3997-OE	2018-WTE-5621-OE	Wind Turbine	Work In Progress	656	1592	41-06-24.01N	82-56-46.10W
26	2018-DOT-3998-OE	2018-WTE-5622-OE	Wind Turbine	Work In Progress	656	1620	41-04-34.03N	82-51-45.16W
27	2018-DOT-3999-OE	2018-WTE-5623-OE	Wind Turbine	Work In Progress	656	1608	41-04-17.75N	82-51-40.59W
28	2018-DOT-4000-OE	2018-WTE-5624-OE	Wind Turbine	Work In Progress	656	1592	41-06-23.38N	82-56-07.62W
29	2018-DOT-4001-OE	2018-WTE-5625-OF	Wind Turbine	Work In Progress	656	1563	41-02-45.22N	83-02-58.50W
30	2018-DOT-4002-OE	2018-WTE-5626-OE	Wind Turbine	Work In Progress	656	1603	41-05-19.73N	82-54-31.82W
31	2018-DOT-4003-OE	2018-WTE-5627-OE	Wind Turbine	Work in Progress	656	1608	41-04-12.20N	82-51-25.12W
		2018-WTE-5628-OE	Wind Turbine	Work in Progress	656	1553	41-00-13.22N	83-05-01.36W
32	2018-DOT-4004-OE			+				
33	2018-DOT-4005-OE	2018-WTE-5629-OE	Wind Turbine	Work In Progress	656	1608	41-04-38.18N	82-51-15.38W
34	2018-DOT-4006-OE	2018-WTE-5630-OE	Wind Turbine	Work In Progress	656	1619	41-05-09.97N	82-55-34.67W
35	2018-DOT-4007-OE	2018-WTE-5631-OE	Wind Turbine	Work In Progress	656	1575	41-03-45.14N	83-03-28.80W
36	2018-DOT-4008-OE	2018-WTE-5632-OE	Wind Turbine	Work in Progress	656	1560	41-03-35.54N	83-02-59.73W
37	2018-DOT-4009-OE	2018-WTE-5633-OE	Wind Turbine	Work in Progress	656	1552	41-03-01.71N	83-03-32.75W
38	2018-DOT-4010-OE	2018-WTE-5634-OE	Wind Turbine	Work in Progress	656	1617	41-05-25.71N	82-55-00.58W
39	2018-DOT-4011-OE	2018-WTE-5635-OE	Wind Turbine	Work In Progress	656	1530	41-02-35.36N	83-05-48.22W
40	2018-DOT-4012-OE		Wind Turbine	Work In Progress	656	1626	41-05-26.97N	82-55-38.50W
	··· · · · · · · · · · · · · · · · · ·	2018-WTE-5636-OE				1586		82-56-54.68W
41	2018-DOT-4013-OE	2018-WTE-5637-OE	Wind Turbine	Work In Progress	656		41-06-49.69N	
42	2018-DOT-4014-OE	2018-WTE-5638-OE	Wind Turbine	Work In Progress	656	1553	41-00-37.58N	83-04-46.55W
43	2018-DOT-4015-OE	2018-WTE-5639-OE	Wind Turbine	Work In Progress	656	1549	41-01-30.88N	83-04-16.35W
44	2018-DOT-4016-OE	2018-WTE-5640-OE	Wind Turbine	Work In Progress	656	1475	41-02-04.08N	83-08-46.00W
45	2018-DOT-4017-OE	2018-WTE-5641-OE	Wind Turbine	Work In Progress	656	1596	41-05-56.44N	82-55-45.00W
46	2018-DOT-4018-OE	2018-WTE-5642-OE	Wind Turbine	Work In Progress	656	1570	41-00-55.49N	83-03-51.57W
47	2018-DOT-4019-OE	2018-WTE-5643-OE	Wind Turbine	Work In Progress	656	1562	41-03-47.67N	83-03-04.25W
48	2018-DOT-4020-OE	2018-WTE-5644-OE	Wind Turbine	Work In Progress	656	1538	41-00-41.52N	83-05-27.33W
49	2018-DOT-4021-OE	2018-WTE-5645-OE	Wind Turbine	Work In Progress	656	1560	41-00-09.20N	83-04-41.34W
50	2018-DOT-4022-OE	2018-WTE-5646-OE	Wind Turbine	Work In Progress	656	1534	41-01-04.87N	83-04-58.05W
51	2018-DOT-4023-OE	2018-WTE-5647-OE	Wind Turbine	Work in Progress	656	1514	41-02-46.62N	83-06-01.81W
52	2018-DOT-4024-OE	2018-WTE-5648-OE	Wind Turbine	Work In Progress	656	1555	41-03-13.58N	83-03-43.64W
53	2018-DOT-4025-OE	2018-WTE-5649-OE	Wind Turbine	Work In Progress	656	1483	41-02-19.86N	83-08-45.50W
54	2018-DOT-4026-OE	2018-WTE-5650-OE	Wind Turbine	Work In Progress	656	1553	41-01-08.94N	83-03-49.19W
55	2018-DOT-4027-OE	2018-WTE-5651-OE	Wind Turbine	Work In Progress	656	1486	41-02-01 56N	83-08-30.21W
		2018-WTE-5652-OE			656	1539	41-00-58.75N	83-04-44.02W
56	2018-DOT-4028-OE		Wind Turbine	Work In Progress				
57	2018-DOT-4029-OE	2018-WTE-5653-OE	Wind Turbine	Work In Progress	656	1530	41-01-46.08N	83-04-16.45W
58	2018-DOT-4030-OE	2018-WTE-5654-OE	Wind Turbine	Work In Progress	656	1580	41-02-27.12N	83-02-15.65W
59	2018-DOT-4031-OE	2018-WTE-5655-OE	Wind Turbine	Work In Progress	656	1574	41-02-51.35N	83-01-37.82W
60	2018-DOT-4032-OE	2018-WTE-5656-OE	Wind Turbine	Work In Progress	656	1578	41-06-45.40N	82-56-35.99W
61	2018-DOT-4033-OE	2018-WTE-5657-OE	Wind Turbine	Work In Progress	656	1556	41-01-37.31N	83-03-37.41W
62	2018-DOT-4034-OE	2018-WTE-5658-OE	Wind Turbine	Work in Progress	656	1530	41-01-59.27N	83-03-53.95W
63	2018-DOT-4035-OE	2018-WTE-5659-OE	Wind Turbine	Work In Progress	656	1540	41-01-55.67N	83-03-34.27W
64	2018-DOT-4036-OE	2018-WTE-5660-OE	Wind Turbine	Work In Progress	656	1599	41-05-26.13N	82-58-52.48W
	2018-DOT-4037-OE		Wind Turbine		656	1555	41-04-38.12N	82-58-19.15W
65		2018-WTE-5661-OE		Work In Progress Work In Progress	656	1559	41-03-42.15N	83-03-58 24W
66	2018-DOT-4038-OE	2018-WTE-5662-OE	Wind Turbine					
67	2018-DOT-4039-OE	2018-WTE-5663-OF	Wind Turbine	Work In Progress	656	1551	41-02-52.13N	83-04-44.53W
68	2018-DOT-4040-OE	2018-WTE-5664-OE	Wind Turbine	Work In Progress	656	1558	41-03-14.62N	83-04-03.93W
69	2018-DOT-4041-OE	2018-WTE-5665-OE	Wind Turbine	Work In Progress	656	1533	41-03-09.18N	83-05-14.91W
70	2018-DOT-4042-OE	2018-WTE-5666-OE	Wind Turbine	Work In Progress	656	1509	41-03-04.10N	83-05-54.18W
71	2018-DOT-4043-OE	2018-WTE-5667-OE	Wind Turbine	Work In Progress	656	1568	41-06-19.48N	82-52-27.56W
72	2018-DOT-4044-OE	2018-WTE-5668-OE	Wind Turbine	Work in Progress	656	1590	41-03-35.06N	82-51-19.40W
73	2018-DOT-4045-OE	2018-WTE-5669-OE	Wind Turbine	Work in Progress	656	1595	40-59-55.98N	83-03-38.45W
74	2018-DOT-4046-OE	2018-WTE-5670-OE	Wind Turbine	Work in Progress	656	1575	41-05-05.99N	83-01-57.36W
75	2018-DOT-4047-OE	2018-WTE-5671-OE	Wind Turbine	Work in Progress	656	1591	41-06-00.24N	82-59-18.85W
76	2018-DOT-4048-DE	2018-WTE-5672-OE	Wind Turbine	Work in Progress	656	1567	41-07-13.09N	82-55-33.85W
77			Wind Turbine Wind Turbine	Work in Progress	656	1603	41-05-08.60N	82-57-03.95W
	2018-DOT-4049-OE	2018-WTE-5673-OE				1612	41-05-08.60N 41-05-27.65N	82-56-47.33W
78	2018-DOT-4050-OE	2018-WTE-5674-OE	Wind Turbine	Work in Progress	656			
79	2018-DOT-4051-OE	2018-WTE-5675-OE	Wind Turbine	Work In Progress	656	1575	41-07-09.63N	82-55-08.01W
80	2018-DOT-4052-OE	2018-WTE-5676-OE	Wind Turbine	Work In Progress	656	1595	41-06-17.12N	82-57-16.63W
81	2018-DOT-4053-OE	2018-WTE-5677-OE	Wind Turbine	Work In Progress	656	1592	41-04-36.76N	82-56-08.39W
82	2018-DOT-4054-OE	2018-WTE-5678-OE	Wind Turbine	Work In Progress	656	1600	41-06-04,49N	82-58-46.05W
. 83	2018-DOT-4055-OE	2018-WTE-5679-OE	Wind Turbine	Work In Progress	656	1579	41-00-36.93N	83-03-54.08W
84	2018-DOT-4056-OE	2018-WTE-5680-OE	Wind Turbine	Work In Progress	656	1527	41-02-02.50N	83-06-22.76W
85	2018-DOT-4057-OE	2018-WTE-5681-OE	Wind Turbine	Work in Progress	656	1587	41-06-17.14N	82-53-43.83W
			Wind Turbine	Work in Progress	656	1584	41-06-20.44N	82-58-19.84W
86	2018-DOT-4058-OE	2018-WTE-5682-OE						
87	2018-DOT-4059-OE	2018-WTE-5683-OE	Wind Turbine	Work in Progress	656	1595	41-04-34.26N	82-55-47.97W
88	2018-DOT-4060-DE	2018-WTE-5684-OE	Wind Turbine	Work In Progress	656	1525	41-00-47.77N	83-06-01.58W
89	2018-DOT-4061-OE	2018-WTE-5685-OE	Wind Turbine	Work In Progress	656	1499	41-02-57.44N	83-06-25.86W
90	2018-DOT-4062-OE	2018-WTE-5686-OE	Wind Turbine	Work In Progress	656	1528	41-00-45.39N	83-05-43.68W
91	2018-DOT-4063-OE	2018-WTE-5687-OE	Wind Turbine	Work In Progress	656	1603	41-04-36.00N	83-01-15.41W
92	2018-DOT-4064-OE	2018-WTE-5688-OE	Wind Turbine	Work In Progress	656	1616	41-05-27.04N	83-00-07.07W
93	2018-DOT-4065-OE	2018-WTE-5689-OE	Wind Turbine	Work In Progress	656	1604	41-05-11.45N	83-00-34.33W
94	2018-DOT-4066-OE	2018-WTE-5690-OE	Wind Turbine	Work in Progress	656	1608	41-05-24.58N	82-58-20.87W
95	2018-DOT-4067-OE	2018-WTE-5691-OE	Met Tower	Work In Progress	440	1395	41-05-00.63N	82-55-21.30W
96	2018-DOT-4068-OE	2018-WTE-5692-OE	Met Tower	Work In Progress	440	1389	41-05-04.38N	82-56-15.21W
97	2018-DOT-4069-OE	2018-WTE-5693-OE	Met Tower	Work In Progress	440	1265	41-01-55.33N	83-08-40.24W
98	2018-DOT-4070-OE	2018-WTE-5694-OE	Met Tower	Work In Progress	440	1391	41-04-06.79N	82-51-37.88W
99	2018-DOT-4071-OE	2018-WTE-5695-CE	Met Tower	Work In Progress	440	1344	41-00-03.71N	83-04-51.97W
100	2018-DOT-4072-OE	2018-WTE-5696-OE	Met Tower	Work In Progress	440	1342	41-00-03.86N	83-05-01.49W
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		nitial Environmental Studies	PJM Interconnection Process	Feasibility Study	System Impact Study	Sign Interconnection Service Agreement	Ohio Power Siting Board Process	Application Preparation	Pre-Application Meeting	Public Information Meeting	Submit Application	OPSB Review	Certificate Granted	Design and Engineering	Preliminary Designs	Commercial	Financing	Financial Close	Construction	Final Engineering	Construction (field work)	Start Commercial Operations	ĺ	
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Case No(s). 18-0488-EL-BGN

Summary: Testimony of Peter Pawlowski on behalf of Seneca Wind, LLC electronically filed by Teresa Orahood on behalf of Devin D. Parram