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Sally W. Bloomfield 614.227.2368 sbloomfield@bricker.com March 28, 2014

Via Electronic Filing

Ms. Barcy McNeal Administration/Docketing Public Utilities Commission of Ohio 180 East Broad Street, 11th Floor Columbus, OH 43215-3793

Re: 6011 Greenwich Windpark, LLC OPSB Case No. 13-990-EL-BGN

Dear Ms. McNeal:

Attached for filing are copies of 6011 Greenwich Windpark, LLC's ("Greenwich") responses to Staff's Data Requests Set #1 and Set #2 issued on March 6, 2014 and March 11, 2014, respectively. Greenwich provided its responses to OPSB Staff on March 19, 2014 and March 26, 2014 respectively. Attachments referred to in the responses were delivered to the OPSB Staff.

Please do not hesitate to contact me if you have any questions.

Sincerely,

Sally N Bloomjula

Sally W. Bloomfield

Attachments

Cc: Grant Zeto (w/Attachments)

Responses to Data Requests and Interrogatories – Set #1

6011 Greenwich Windpark, LLC Case No. 13-0990-EL-BGN

1. Are there any natural gas or hazardous liquid pipelines within the project area? If there are natural gas or hazardous liquid pipelines within the project area, then please provide the distances to the closest wind turbines.

There is an inactive gas pipeline that currently runs through the project area. It was installed for the war effort in early 1940. It has been unused for years; however, with the renewed interest in gas, a new pipeline is due to be laid (constructed) within 25 feet of the existing pipeline easement. One of our landowners, Harold Zager, is the spokesman for the North Central Landowners Association that has been working with Sunoco. He provides updates and clarity on an ongoing basis for this pipeline effort which has commenced construction.

Turbine Number	Distance From Pipeline (from base)	From Current Easement	Distance from additional 25 foot easement (to the south)
7	752 Feet	727 feet	702 feet
9	1,529 Feet	1,504 feet	1,479 feet
14	1485 Feet	1,460 feet	1,460 feet
15	607 Feet	582 feet	582 feet

*turbines 14 & 15 are to the North of pipeline – additional easement is on South side.

2. Is there a proposed location for the Operations and Maintenance Facility? If so, please provide GIS data.

Attached GIS File.

The Operations & Maintenance Facility is planned to be located next to the proposed substation just west of Hwy 13 on Plymouth East Road.

3. Where is the proposed location of the second permanent meteorological tower? Sheet 2 of 7, Figure 05-4 only indicates one proposed location.

Attached GIS File. Note, we are not certain if the second permanent meteorological tower will be needed, given the relatively small number of turbines to be installed across the project area.

4. Pages 145 and 165 of the Application refer to a concrete batch plant. Is a concrete batch plant proposed for this project? If so, please describe the anticipated impacts and provide GIS data.

A batch plant was referenced as just one component of common construction options. Currently, a batch plant has not been fully determined for this wind project. As of today, the construction contract has not been finalized; however, there are indications that sufficient resources exist within the surrounding areas – Williard, Norfolk, Ashland & Mansfield – to supply concrete. One key component of construction is the foundation concrete pour. In order to maintain tensile strength the concrete pour must be continuous, therefore, commitment by the local concrete suppliers is required. If adequate commitment could not be obtained, a batch plant plan would need to be brought forth for consideration and approval prior to construction. In order to show we have considered this option, even though it is <u>NOT</u> likely to be used, Windlab has looked at two potential areas (GIS file attached):

1. Intersection of Hwy 13 and Olivesburg Greenwich Road – NSN farms owns a small 3.0 acre parcel. This land is currently under lease; however, in our agreement we negotiate separately for lay down areas, substations, and batch plants.

2. South of Hwy 224 on Hwy 13 (west side); Hightouch Homes property. The new owner of this property has not decided what to do with this property. He approached us for using as a potential construction lay down area or batch plant as the ground is already compacted and paved. As this location is already disturbed it would be the preferred location.

For clarity, this project is not anticipating the use of a batch plant.

5. Does Greenwich Windpark LLC or Windlab Systems have any minimum setback recommendations/guidance? If yes, please provide these.

No

6. Has Greenwich Windpark contacted any electric service providers in the project area regarding any microwave paths or other communications systems operating within the project area? If yes, please explain any concerns identified.

American Electric Power (AEP) does not have any microwave paths operating in the area. As part of our interconnection, we will be adding SCADA to the lines in order to facilitate immediate communications and operational responses with AEP.

7. Exhibit T, Communication Studies, on page 5 of the "AM and FM Radio Report", Comsearch indicates that Mansfield Christian School has a pending FM station construction permit application within the wind farm project area. Has Greenwich Windpark contacted Mansfield Christian School to determine its construction schedule?

Greenwich has contact Mansfield Christian School. The station rights were sold and are now operational in Willard, OH, with a primary broadcast area of Shelby. The new owner is OUR LADY OF GUADALUPE RADIO, INC. D/B/A ANNUNCIATION RADIO. As Willard and Shelby are in excess of 12 miles, the proposed wind farm should not impact this broadcast. An updated report is attached to reflect this change.

8. Exhibit T, Communication Studies, on page 6 of the "Cable and Satellite Report", Comsearch has recommended that if there is any degradation to a cable providers' headend facility's off-air television reception that the cable provider use an alternate method of reception. How will Greenwich Windpark address this?

The alternative method of reception would be dependent on a detailed study of exactly how the provider is setup to retrieve the off-air television signals and which signals are being impacted at the cable provider's headend facility. (Does Provider receive signals via large satellite dish or digitally). The alternatives could include redesigning the receive capabilities or designing an alternative delivery path/system for the off-air signals to the headend location. Prior to construction, all local cable providers will be notified and instructed if degradation occurs to discuss alternate headend facility reception.

9. The conclusion for the Exhibit T, Communication Studies, "Doppler Radar Study" seems to be based on incorrect wind turbine dimensions. Please resubmit this doppler radar study analysis based on correct dimensions for the Nordex N117 (where the blade diameter is 117 meters and the hub height is 91 meters).

The report Communication Studies, "Doppler Radar Study" has been revised to take into account the correct wind turbine dimensions. The dimensions used in the revised report were for the Nordex N117, where the blade diameter is 117 meters and the hub height is 91 meters. See Attached.

10. On page 8 of the Exhibit T, Communication Studies "Doppler Radar Study" there is a reference to a "red wavy line." Please explain, since there doesn't appear to be any red wavy lines in Figures 4 through 6.

Figures 6, 7 and 8 are path profiles plotted between the Radar and the closest wind turbine panned for the Greenwich Project. The straight red line represents the line-of-sight from the Radar to the top of the wind turbine. The wavy or curvy red (orange) line represents the terrain between the Radar and the wind turbine taking into account the earth curvature. The purpose of the path profile plots is to determine whether the terrain will block the line-ofsight between the Radar and the entire wind turbine.

11. On page 11 of the Exhibit T, Communication Studies "Doppler Radar Study" the wind farm could impact two radar systems by creating clutter returns. Please further explain and describe the nature and impact of clutter returns from the wind farm on the Doppler radar systems.

Where line-of-sight from the Radar and wind turbine blades exist the Radar signal will be reflected back to the Radar producing a response on the Radar display. Since this is not a desired response; desired responses are from aircraft, weather movements, etc., it is

considered clutter. Clutter is considered a false target producing an output that will show velocity and position (range and azimuth) on the Radar display. But since it is a false target its presence clutters the Radar display.

12. On page 11 of the Exhibit T, Communication Studies "Doppler Radar Study" the wind farm could impact two radar systems by creating false targets and lost coverage. Please further explain and describe the nature and impact of false targets and lost coverage impacts from the wind farm on the Doppler radar systems.

The amount of clutter observed on the Radar display caused by the wind turbines will depend on how the wind turbines are oriented in azimuth with respect to the Radar affected. The orientation of the wind turbines will depend on the direction of the wind. The worse case for wind turbine orientation would occur when the wind turbine is perpendicular to the propagation path of the Radar signal. The sector width of clutter will be at its maximum when this condition occurs. If an aircraft or weather front was in the sector where the clutter was occurring the tracking of the aircraft or weather front would be degraded or made impossible to observe. For example, if the Doppler Radar was trying to determine the velocity of the aircraft or weather front in the affected sector it may not be possible because of the clutter from the wind turbine blades.

13. Comsearch has recommended that the clutter sectors be mapped and provided to the radar operators, Greenwich Windpark will provide switchable blanking capability to the radar operators, or Greenwich Windpark will relocate the radar systems. How will Greenwich Windpark address this?

These two questions #13 & 14 deal with mitigation of the coverage and false target effects caused by the wind turbines. By equipping the Radar systems with blanking capability that the operators can switch on and off, it eliminates clutter and false targets.

Technically, mitigation of these problems for the affected Radars from a strictly legal standpoint is not the responsibility of Greenwich; however, Greenwich is motivated to correct the Radar issue as a 'good neighbor'.

We have chosen a path to contact the two owner/operators of the potentially affected Radars to determine whether the impacts identified will significantly impact their operations. Attached is an e-mail from owner/operator WKYC (call sign WPKJ993), indicating the turbines will not be a problem. The second radar system owned/operated by WOIO, (call sign WPPB343) is currently in the process of reviewing the information. Phone discussions to date indicate providing blanking will be sufficient; however, we are awaiting written confirmation of such.

14. Exhibit T, Communication Studies, on page 11 of the "Doppler Radar Study", Comsearch has recommended that the clutter sectors be mapped and provided to the radar operators, Greenwich Windpark will provide switchable blanking capability to the radar operators,

and/or Greenwich Windpark will relocate the radar systems. How will Greenwich Windpark address this impact?

(same question as #13)

15. The conclusion for the Exhibit T, Communication Studies, "Microwave Study" seems to be based on incorrect wind turbine dimensions. Please resubmit this microwave study analysis based on correct dimensions for the Nordex N117 (where the blade diameter is 117 meters and the hub height is 91 meters).

The report Communication Studies, "Microwave Study" has been revised to take into account the correct wind turbine dimensions. The dimensions used in the revised report were for the Nordex N117, where the blade diameter is 117 meters and the hub height is 91 meters. See Attached.

16. Exhibit T, Communication Studies, on page 6 of the "Off-Air TV Analysis", Comsearch has recommended that the Applicant may offer cable and direct broadcast satellite services to residents who can show that their off-air TV reception has been disrupted by the presence of wind turbines. Is this how Greenwich Windpark plans to address impacts to off-air TV reception? If yes, please provide an outline of the process that includes the steps that would be required to resolve the issue?

Cable & direct broadcast satellite are the primary method in which people receive television service/reception. However, it is anticipated there are some households in the Greenwich project area that use Off-Air TV programming. Impact assumptions/predictions:

- Multiple Broadcast stations surround the Greenwich area in various directions, therefore, it is unlikely that all program channels would be affected based on this multi direction reception of signals. Rather, one or two off-air program channels may be impacted.
- Given the large Mennonite population in the area, it is unlikely this issue will pose a widespread problem, as Mennonites' do not own televisions.
- However, at the beginning of construction, a local TV service technician will be identified to respond and evaluate TV interference areas of concern.
- If persons are identified who are experiencing off-air TV reception problems, a technician will be deployed to assess the problem.
 - Variables to be assessed would include: 1) Distance Is the signal weak to begin with, 2) what is the current condition of the receiver/antenna, 3) is there an amplifier already in use.

- With current technology**, technicians are able to distinguish reception issues due to wind tower interference.
- Mitigation options to restore TV reception to a minimum of all network TV /PBS stations include: amplifiers or connection to cable or satellite service will be available for those households directly impacted by the wind project.

** The signal level of the digital television signal is measured using a spectrum analyzer and the video is observed and recorded using a laptop computer with a capability of recording to a DVD. The two indicators of video performance are the measured signal level in $dB\mu/V$ meter and the subjective observation of the video quality. The video quality must be observed for all multiple broadcasts of standard video on a channel or the one or two broadcasts of high definition television programming on a channel.

17. GIS data provided with the application shows directional boring across two unleased properties. Please provide an explanation of the circumstances for why this is proposed.

The first proposed horizontal directional boring (across unleased property) – identified in the southwest corner of the project area – is owned by someone who has not wanted to participate in the project, but who is not opposed to the project. Windlab has approached this non-participating landowner and proposed horizontal directional boring underneath his property (in order to reach turbine #2); ongoing discussions of price point continue.

The second proposed horizontal directional boring (across unleased property) – identified in the northeast corner of the project area – is now in lease discussions. This landowner has now expressed interested in participating in the project because the project is viable, and this landowner is related to the signed neighboring parcels to the west and east of their property. Windlab has offered this landowner an option of horizontal directional boring under his property (in order to join turbines #24 and #25) as an alternative to joining the project. We anticipate signing the full lease agreement or horizontal directional boring agreement shortly.

18. The Development Services Agency's comments on the project stated the following: "Multiple figures were listed for overall project costs and job creation. Staff would encourage OPSB to gather more information regarding these figures." Please provide clarification of the anticipated overall costs of job creation.

On pages 5 and 193 of the Application, we state that throughout the course of the entire construction phase, approximately 100 employees would be working on the project (not all on-site at one time, but over the course of months). Once the wind farm is operational, the O&M staff would be approximately 3-4 full-time jobs, with the cumulative wages and salaries for the 3-4 employees estimated at \$215,000 per year.

Somehow, I think they are getting these numbers/figures confused with the "cost" figures presented in page 73-76 of the application.

19. **4906.10**(**A**)(**7**) – Agricultural Districts:

	Temp. Disturbance (acres)	Permanent Disturbance (acres)
Agricultural District Land	26.6	4.4
Land in agricultural production	20.5	3.4

A. Please complete the following table for the project area, including acreage designated as Agricultural District Land, as defined under ORC Chapter 929.

B. If Agricultural District Land is present in the project area, please provide GIS data.

Attached GIS File.

20. On page 225 of the Application, it states "The Application decommissioning plan complies with item 26 of the OPSB Post-Certificate Requirements." What is Item 26 of the OPSB Post-Certificate Requirements?

The Applicant, facility owner, and/or facility operator shall comply with the following conditions regarding decommissioning:

(a) The Applicant, facility owner, and/or facility operator shall provide the final decommissioning plan to Staff and the County Engineer(s) for review and confirmation of compliance with this condition, at least 30 days prior to the preconstruction conference. The plan shall:

(i) Indicate the intended future use of the land following reclamation.

(*ii*) Describe the following: engineering techniques and major equipment to be used in decommissioning and reclamation; a surface water drainage plan and any proposed impacts that would occur to surface and ground water resources and wetlands; and a plan for backfilling, soil stabilization, compacting, and grading.

(iii) Provide a detailed timetable for the accomplishment of each major step in the decommissioning plan, including the steps taken to comply with applicable air, water, and solid waste laws and regulations and any applicable health and safety standards in effect as of the date of submittal.

(b) The facility owner and/or facility operator shall file a revised decommissioning plan to the Staff and the County Engineer(s) every five (5) years from the commencement of construction. The revised plan shall reflect advancements in engineering techniques and reclamation equipment and standards. The revised plan shall be applied to each fiveyear decommissioning cost estimate. Prior to implementation, the decommissioning plan, and any revisions shall be reviewed by Staff to confirm compliance with this condition.

(c) The facility owner and/or facility operator shall, at its expense, complete decommissioning of the facility, or individual wind turbines, within 12 months after the end of the useful life of the facility or individual wind turbines. If no electricity is generated for a continuous period of 12 months, or if the Board deems the facility or turbine to be in a state of disrepair warranting decommissioning, the wind energy facility or individual wind turbines will be presumed to have reached the end of its useful life. The Board may extend the useful life period for the wind energy facility or individual turbines for good cause as shown by the facility owner and/or facility operator. The Board may also require decommissioning of individual wind turbines due to health, safety, wildlife impact, or other concerns that prevent the turbine from operating within the terms of the Certificate.

(d) Decommissioning shall include the removal and transportation of the wind turbines off site. Decommissioning shall also include the removal of buildings, cabling, electrical components, access roads, and any other associated facilities, unless otherwise mutually agreed upon by the facility owner and/or facility operator and the landowner. All physical material pertaining to the facility and associated equipment shall be removed to a depth of at least 36 inches beneath the soil surface and transported off site. The disturbed area shall be restored to the same physical condition that existed before erection of the facility. Damaged field tile systems shall be repaired to the satisfaction of the property owner.

(e) During decommissioning, all recyclable materials, salvaged and non-salvaged, shall be recycled to the furthest extent practicable. All other non-recyclable waste materials shall be disposed of in accordance with state and federal law.

(f) The facility owner and/or facility operator shall not remove any improvements made to the electrical infrastructure if doing so would disrupt the electric grid, unless otherwise approved by the applicable regional transmission organization and interconnection utility.

(g) Subject to confirmation of compliance with this condition by Staff, and seven days prior to the preconstruction conference, an independent, registered professional Engineer, licensed to practice engineering in the state of Ohio, shall be retained by the Applicant, facility owner, and/or facility operator to estimate the total cost of decommissioning in current dollars, without regard to salvage value of the equipment. Said estimate shall include: (1) an identification and analysis of the activities necessary to implement the most recent approved decommissioning plan including, but not limited to, physical construction and demolition costs assuming good industry practice and based on ODOT's Procedure for Budget Estimating and RS Means material and labor cost indices or any other publication or guidelines approved by Staff; (2) the cost to perform each of the activities; (3) an amount to cover contingency costs, not to exceed 10 percent of the above calculated reclamation cost. Said estimate will be converted to a per-turbine basis (the "Decommissioning Costs"), calculated as the total cost of decommissioning of all facilities as estimated by the Professional Engineer divided by the number of turbines in the most recent facility engineering drawings. This estimate shall be conducted every five years by the facility owner and/or facility operator.

(h) The Applicant, facility owner and/or facility operator shall post and maintain for decommissioning, at its election, funds, a surety bond, or similar financial assurance in an amount equal to the per-turbine Decommissioning Costs multiplied by the sum of the number of turbines constructed and under construction. The funds, surety bond, or financial assurance need not be posted separately for each turbine so long as the total amount reflects the aggregate of the Decommissioning Costs for all turbines constructed or under construction. For purposes of this condition, a turbine is considered to be under construction at the commencement of excavation for the turbine foundation. The form of financial assurance or surety bond shall be a financial instrument mutually agreed upon by the Board and the Applicant, the facility owner, and/or the facility operator. The financial assurance shall ensure the faithful performance of all requirements and reclamation conditions of the most recently filed and approved decommissioning and reclamation plan. At least 30 days prior to the preconstruction conference, the Applicant, the facility owner, and/or the facility operator shall provide an estimated timeline for the posting of decommissioning funds based on the construction schedule for each turbine. Prior to the commencement of construction, the Applicant, the facility owner, and/or the facility operator shall provide a statement from the holder of the financial assurance demonstrating that adequate funds have been posted for the scheduled construction. Once the financial assurance is provided, the Applicant, facility owner and/or facility operator shall maintain such funds or assurance throughout the remainder of the applicable term and shall adjust the amount of the assurance, if necessary, to offset any increase or decrease in Decommissioning Costs.

The decommissioning funds, surety bond, or financial assurance shall be released by the holder of the funds, bond, or financial assurance when the facility owner and/or facility operator has demonstrated, and the Board concurs, that decommissioning has been satisfactorily completed, or upon written approve of the Board, in order to implement the decommissioning plan.

21. Please confirm that the map "Greenwich Wind Farm Conceptual Road Intersection Improvements 03 – SR 13 & 224" found in Exhibit E represents that no improvements will are required for that intersection.

Correct.

22. The application states on p.176 that an individual 401 permit would not be necessary. Has there been any coordination with Ohio EPA to determine that the temporary impacts to approximately 0.5 acres of wetlands would not need coverage under an individual 401?

ORAM's and wetland delineation reports were submitted in December, however once the final project layout and construction techniques are finalized, a final review of all sensitive areas and impacts (temporary) can be formalized with the EPA. The Applicant will coordinate with the Ohio EPA and USACE to ensure that all anticipated wetland and stream impacts are properly permitted – through either the applicable Nationwide Permit or Individual Permit.

23. Does the Applicant anticipate coverage under the USACE Nationwide Permit 51 for surface water impacts? Please describe if any mitigation or conservation easements are required by the USACE as part of the Nationwide Permit 51.

If surface water impacts from Project infrastructure cannot be avoided through micrositing and/or other construction techniques (e.g. directional drilling), then the Applicant will likely seek coverage for surface water impacts under USACE Nationwide Permit 51. Mitigation and conservation easements will be implemented as required relative to the permitted impacts and in coordination with the USACE.

24. It states on p.174 of the application that the Applicant would utilize temporary bridging or a crossing "in the dry" as low impact stream crossing techniques. Please clarify how streams would be crossed to reduce stream impacts, specifically describing best management practices such as matting or bridging to avoid in-stream disturbance.

Should the final site layout require stream crossings, the Applicant would utilize a variety of stream crossing techniques (that would reduce stream impacts), dependent upon the individual stream characteristics and the Project infrastructure component being constructed. Possible practices to be utilized could include wood mats, temporary culverts, and temporary bridges.

Upon consulting with our constructor, their previous Ohio construction experience preference is to place a culvert in the ditch, fill the top with sand, stone and crane mats. After a crane crosses, the mats, stone, sand and culverts would be removed. Seed blankets would then be placed on the banks of the ditches for erosion control after everything is removed. The crossings are planned out well ahead of time and reviewed with the county drain authorities and with the road commission(s). (Given that some ditch crossing may have an adjacent road crossing, some jurisdictions require permits for all crossings, while others just want to be notified when a crossing occurs to inspect the condition of the drain before and after the crossing.)

25. According to ODNR's comments on January 28, 2014, the Division of Wildlife (DOW) recommended "that stream impacts be minimized and commitments of horizontal directional drilling should be provided. The project boundaries are within watersheds that meet or

exceed the minimum threshold to support mussels including state listed species....It is the DOW's recommendation that the Applicant provide DOW with appropriate information indicating stream impact minimization efforts (e.g., HDD) that will be employed during construction and if mussels (common or listed) are located during construction activities that the DOW immediately be consulted for further action." Please describe stream impact minimization efforts that will be employed during construction. Please describe stream impacts as a result of project facilities and how the Applicant will consult with DOW for further action as it relates to mussels.

All Stream impacts will be minimized through micrositing of project infrastructure and/or construction techniques (e.g. directional drilling). In consultation with our constructor, there policy is that all ditches and roads are bored under. Borings are one of the first items to take place electrically. The borings give a place for the trencher to start / finish. Temporary stream crossing practices to be utilized could include wood mats, temporary culverts, and temporary bridges. Once a temporary crossing has fulfilled its purpose impacted area will be remediated back to pre-impact geologic structure with all materials used in the crossing removed and seed mats placed on the banks for erosion control. For permanent stream crossings, existing culvers will be used when possible. The Applicant will consult with DOW to determine which streams could be habitat for mussels in the project area and follow DOW recommendations to minimize impact to streams as it relates to mussels. During construction if mussels are found the Applicant will contact DOW immediately to consult on further action.

26. The application states on p. 125 that the Applicant anticipates a breeding bird survey waiver from ODNR. ODNR has requested more information about the clearing activities. Please describe any clearing of woodlots, forest lands, etc. as a result of the 150 foot clearing radius needed for the turbine sites.

All turbine locations are located in production agricultural lands. All turbine locations meet or exceed 150 feet from woodlots. In instances where the 150 foot clearing radius comes up against tree lots, the clearing area may adjust away from the tree lines for ease of construction. The area will not be bigger, just the turbine location won't be in the exact middle of the construction area:



In addition, if tree clearing were needed, activities would be confined to the seasonal restriction for tree clearing for bats to avoid any take. If clearing activities were needed between April 1 and August 1 additional coordination with DOW would be initiated.

27. USFWS provided comments on January 28, 2014 and included comments specifically about bald eagles. USFWS also included the "Draft State 3 Assessment of Eagle Risk for the Greenwich Wind Project (Huron County, Ohio) Based on the Eagle Conservation Plan Guidance (Version 2), July 5, 2013". Please describe plans for future coordination with USFWS based on this information. Does the Applicant anticipate working with the USFWS to obtain an Incidental Take Permit for eagles?

The Applicant has joined the Region 3 Habitat Conservation Plan. It was confirmed to Windlab bald eagles will be covered in the HCP, as the Service recently acquired supplemental grant funding to cover their inclusion.

28. USFWS stated as part of the January 28, 2014 comments, "As a measure to minimize bat strikes at operating turbines, the Service strongly recommends that the turbine blades be feathered (i.e., remain stationary or nearly stationary) at least until the manufacturer-set cutin speed is reached. This measure should not affect energy generation, but may measurably reduce bat mortality. And, consistent with Tier 4 of the Service's Guidelines (Service 2012), post-construction monitoring should be implemented to evaluate the actual impacts to birds and bats to determine if additional minimization measures are warranted." What measures does the Applicant plan to implement to minimize bat strikes at operating turbines?

The Applicant has joined the Region 3 Habitat Conservation Plan as the first step of working toward an ITP for this project.

29. USFWS stated as part of the January 28, 2014 comments that the Service would like the opportunity to review and comment on the post-construction monitoring protocol before it is implemented. Please describe how the Applicant would consult USFWS on the post-construction monitoring protocol before it would be implemented.

The Applicant has worked closely with Stantec, USFWS and DOW on all wildlife protocols and study expectations. Stantec will continue to provide guidance and structure for all postconstruction monitoring protocols, which will follow the DOW protocols. The USFWS will be provided copies as well. In addition, the HCP will provide an additional layer of coordination and expectation.

30. USFWS provided two options to ensure violations of the Endangered Species Act (ESA) Section 9 take prohibition do not occur: 1. Feather turbines during low speed wind conditions at night during the fall and spring migratory seasons as a way to proactively and definitively avoid take of Indiana bats (and other species of bats as well), or 2. Work with the Service to apply for an Incidental Take Permit by submitting a Habitat Conservation Plan (HCP), as required under Section 10 of the ESA. An HCP can be used to address Indiana bat presence during both summer foraging and migration periods. The Service recommended

that if the Applicant plans to implement either of those two options, please contact the Service for more information. Does the Applicant plan to coordinate with the USFWS on either of the two options?

The Applicant has joined the Region 3 Habitat Conservation Plan.

Responses to Data Requests and Interrogatories – Set #2

6011 Greenwich Windpark, LLC Case No. 13-0990-EL-BGN

1. The shadow flicker report, on page 6, House ID# 272 is listed as being at Easting 375225 and Northing 4540411, which would have a latitude of 41.005348 and a longitude of -82.48372, and have an address of approximately 4900 Ohio 13 Greenwich, OH. Also on page 6 of the shadow flicker report it is stated that the House ID # 272 receives shadow flicker from turbines 17, 18, 20 and 21. It appears that turbines 17, 18, 20 and 21 are approximately 2 miles from this receptor and that the closest turbines to this receptor are 8, 12, 13 and 11. Please explain this discrepancy.

House ID# 272 listed in the shadow flicker report is located at latitude of 41.005348 and a longitude of -82.48372, and has an address of 4888 State Route 13 Greenwich, OH. We have reconfirmed the Easting, Northing, Latitude & Longitude coordinates. Note coordinates are in WGS1984, Zone 17 North.

The discrepancy in the numbering of the four turbines identified as contributing to shadow flicker on receptor ID# 272 is due to an internal error on Windlab's part. The correct turbine numbers are 8, 12, 13, and 11. We apologize as the incorrect numbers were associated with a previous layout version Windlab which were numbered as 17, 18, 20 and 21. An updated page 6 is attached to reflect this correction.

For clarity, the anticipated shadow flicker impacts to this house have not changed from the report.

2. On page 97 of the application, it is stated that, "Any construction at the facility in the evening and nighttime is expected to be limited to relatively quiet activities and to be less noticeable than in the daytime." Recent OPSB wind cases have included the following condition concerning construction noise from 7:00 p.m. to 7:00 a.m.: Construction activities that do not involve noise increases above ambient levels at sensitive receptors are permitted outside of daylight hours when necessary. Would you be able to comply with this condition?

This is a difficult request to comply with not knowing what unknown impacts could happen with construction. For instance a few years ago a project in Michigan was subjected to large springtime rains which filled up excavated turbine foundations. As a result large pumps had to be run 24/7 in order to drain the excavated sites and keep the constant deluge at bay. This impacted the schedule tremendously. In addition, the PPA had a "turn on" delay clause. The constructor had to run 24/7 for a few nights to catch up or incur significant delay damage fees. Given the 24 hour train traffic and large commercial farming barns, which turn stock during night hours (in order to keep the animals as quiet as possible), I believe overnight construction, while not preferred or anticipated, would not be egregious in this community as much as other quieter communities.

<u>We could agree to make every effort to comply with those conditions;</u> however, in the case of extenuating circumstances we would ask for flexibility.

3. There is a newly constructed home on the north side of Plymouth East Road and just west of the substation. Does this home belong to a participating land owner?

The residential structure (which is not inhabited) that is currently under construction is owned by a participating landowner. This home is a self-build project and is not on a specific time schedule to complete. The location of this residential structure was determined by the participating landowner after wind ground lease agreements were executed. The landowner has indicated he has signed the waiver; however we have not physically received it in our office as he is currently working out of state. We expect the waiver any day.

4. Please list any air transportation facilities, existing or proposed within 5 miles of the project. Please include the distance from the air transportation facility to the nearest project component.

The (former) Mindzak Airstrip was located approximately 1.15 miles from the project area at the intersection of Plymouth East Road and Town Line Road along the Huron-Ashland County border. This grass airfield has been removed and is now completely cropped land. Attached are two aerial photographs from 2011 and 2013 to document this change.

5. Page 188 of the Application states that the Applicant is currently in the process of executing a waiver of the minimum setback for property lines with each of the landowners within the minimum setback. What is the status of these waivers? Has the Applicant executed a waiver with the owner of the residential structure located 1117.5 feet from turbine 9?

All minimum setback property and residential structure waivers have been executed. Note question #3 is same landowner in regards to turbine #9. The landowner has indicated he has signed the waiver; however we have not physically received it in our office, as he is currently working out of state. We expect the waiver any day.

6. In the written portion of the application, the estimated capital and intangible costs are listed as \$117,706,000 (\$1,961/kW) (top of page 73). However, in 'Table 06-1: Estimated Capital and Intangible Costs' the estimated capital and intangible costs are listed as \$124,906,000 (\$1,998/kW) (page 73), though the total as presented in the table should be \$119,906 (\$1,998/kW). Please clarify the difference in estimated costs.

Due to our mathematical error, the figures listed in the written narrative of the Application were incorrect. In the written portion (located at the top of page 73), the total estimated capital and intangible costs of the Facility should have been listed as \$119,906,000. The total costs presented in Table 06-1 should have been listed as \$119,906 (\$1,998/kW). The corrected calculations are broken out and listed below in Table 06-1.

Description	Cost (\$'000)
Capital Costs	
Turbine	\$80,393
Balance of Plant (Erection, civil, electrical)	\$23,143
Other	\$8,128
Total Capital Costs	\$111,664
Intangible Costs	
Development & Management	\$2,200
Insurance	\$642
Legal/ Other	\$5,400
Total Intangible Costs	\$8,242
Total Costs (Capital + Intangible)	\$119,906
Cost per KW	\$1,998

Table 06-1. Estimated Capital and Intangible Costs-- REVISED

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Case No(s). 13-0990-EL-BGN

Summary: Response of 6011 Greenwich Windpark to Staff Data Requests electronically filed by Teresa Orahood on behalf of Sally Bloomfield