BEFORE

OHIO POWER SITING BOARD

In the Matter of the Application of Buckeye Wind LLC for a Certificate to Construct Wind-powered Electric Generation Facilities in Champaign County, Ohio.	))))	Case No. 08-666-EL-BGN

ENTRY ON REHEARING

The Board finds:

(1) On April 24, 2009, Buckeye Wind LLC (Buckeye) filed with the Ohio Power Siting Board (Board) an application, pursuant to the provisions of Chapter 4906-13, Ohio Administrative Code (O.A.C.), for a certificate of environmental compatibility to construct a wind-powered electric generation facility. The proposed project consisted of 70 wind turbine generators, other associated facilities, and access roads to be located on approximately 9,000 acres of land in Goshen, Rush, Salem, Union, Urbana, and Wayne Townships, Champaign County, Ohio.

(2) On March 22, 2010, the Board issued its opinion, order, and certificate (Order), granting Buckeye's application for authority to construct 53 of the proposed 70 wind turbines and associated facilities, subject to 70 conditions.

(3) Section 4906.12, Revised Code, states, in relevant part, that Section 4903.10, Revised Code, applies to a proceeding or order of the Board.

(4) Section 4903.10, Revised Code, and Rule 4906-7-17(D), O.A.C., provide that any party to a proceeding may apply for rehearing with respect to any matter determined by the Board within 30 days after the entry of the order upon the journal.

(5) Union Neighbors United, Inc., Robert and Diane McConnell and Julia F. Johnson (jointly UNU) filed an application for rehearing on April 20, 2010, asserting eight assignments of error. On April 21, 2010, the Board of Commissioners of Champaign County, Ohio, along with the Boards of Trustees of the Townships of Goshen, Salem, Urbana, and Wayne (jointly

County)[1] and Buckeye filed applications for rehearing, each asserting four assignments of error.

(6) By entry issued April 29, 2010, the administrative law judge (ALJ) granted a motion for an extension of time, until May 5, 2010, for the filing memorandum contra the applications for rehearing. On April 28, 2010, UNU filed its memorandum in opposition to Buckeye's application for rehearing. On May 5, 2010, Buckeye filed memoranda contra the applications for rehearing of UNU and the County; the County filed a memorandum contra the application for rehearing filed by Buckeye; and the City of Urbana (Urbana)[2] filed a memorandum contra the application for rehearing filed by Buckeye.

(7) Pursuant to the authority set forth in Rule 4906-7-17(I), O.A.C., the ALJ issued an entry granting rehearing in this matter on May 19, 2010, to afford the Board more time to consider the issues raised in this matter by UNU, Buckeye, and the County.

Motions to Strike

(8) On May 5, 2010, Buckeye filed a motion to strike portions of UNU's memorandum in opposition to Buckeye's application for rehearing. Specifically, Buckeye sought to have the following partial paragraph stricken, along with the footnote contained therein and the accompanying exhibit, regarding the Federal Aviation Administration (FAA) determinations of hazard to aviation:

> However, a review of the FAA hazard determinations for the above turbines shows that the FAA determined these turbines to be aviation hazards with respect to both Weller Field (FAA

1 The township of Rush was granted intervention in this proceeding and was represented by the Champaign County Prosecutor along with the other named townships. Rush Township appears not to be a party to the County's application for rehearing.

2 The Board notes that this memorandum, filed on May 5, 2010, is entitled "Memorandum of Intervenors Union Neighbors United, Inc., Robert and Diane McConnell, and Julia F. Johnson in Opposition to Applicant Buckeye Wind, LLC's Application for Rehearing." However, upon further inspection, the document was signed on behalf of Urbana and, throughout the document, Urbana is named as the entity requesting that Buckeye's application for rehearing be denied. Therefore, for purposes of our consideration of this memorandum contra, Urbana will be considered the party filing the document.

> designation 38I) and Grimes Field (FAA designation I74).[1] *See* Exhibit 1. Therefore, any future change in the use of Weller Field would not resolve the hazards that these turbines pose with respect to Grimes Field.

(UNU Memo Contra at 2, footnote omitted).

Exhibit 1 contains the actual FAA determinations of hazard dated September 2 and 3, 2009. In support of its motion to strike, Buckeye asserts that none of the documents attached as Exhibit 1 were introduced during the evidentiary hearing; therefore, the documents and all references to them should be stricken from the record. Moreover, Buckeye asserts that, because the documents were not presented at the hearing, Buckeye did not have the opportunity to question its aviation witness on the content of those documents, which it asserts do not contain the most current information. Therefore, according to Buckeye, these documents should be stricken to prevent the Board from basing its decision on inaccurate and untested information. (Buckeye Motion to Strike at 3-5.)

(9) UNU filed its memorandum in opposition to Buckeye's motion to strike on May 20, 2010. In response to Buckeye's motion to strike, UNU asserts that one of the purposes of rehearing is to allow the Board to determine whether additional evidence should be admitted into the record and considered. Therefore, UNU asserts that it included Exhibit 1 in its memo contra Buckeye's application for rehearing only to show the incorrect nature of Buckeye's arguments on rehearing. (UNU Motion to Strike and Response at 4-5.)

(10) On May 21, 2010, Buckeye filed a reply to UNU's memorandum contra Buckeye's motion to strike. Buckeye argues that UNU is trying to use documents outside of the record to impeach evidence that is already part of the record. (Buckeye Response at 1.)

(11) Upon consideration of Buckeye's motion to strike, the Board agrees that it is not appropriate for a party to attempt to introduce new evidence into the record in an application for rehearing, when the information was available prior to the hearing and could have been presented, thus allowing other

parties the opportunity to cross examine on the information. Therefore, the Board concludes that Buckeye's motion to strike is reasonable and should be granted.

(12) On May 20, 2010, UNU filed a motion to strike a portion of Buckeye's application for rehearing. Specifically, UNU moves to strike footnote 3 contained in Buckeye's application for rehearing on the ground that nothing in the record supports the distinction claimed by Buckeye concerning which turbines were deemed a hazard by the FAA to either Weller Airport (Weller) or Grimes Field (Grimes). Moreover, UNU asserts that the information contained in footnote 3 is also factually incorrect because it asserts that some of the turbines were determined to be a hazard to both Grimes and Weller. (UNU Motion to Strike and Response at 3-4.)

(13) On May 21, 2010, Buckeye filed a memorandum contra UNU's motion to strike a portion of Buckeye's rehearing request. Initially, Buckeye states that it would have been more appropriate for UNU to have raised this contention in its reply to Buckeye's application for rehearing, rather than in a motion to strike. In addition, according to Buckeye, there is information in the record that indicates which turbines were deemed hazards by the FAA and which airport each turbine would affect. (Buckeye Response at 2-4.)

(14) The Board notes that footnote 3 in Buckeye's application for rehearing cites to the specific portions of the record in this case that address the information referenced in footnote 3. Therefore, upon consideration of UNU's motion to strike, the Board finds that UNU's motion is without merit and should be denied.

Buckeye Witness Shears' Testimony

(15) UNU, in its application for rehearing, asks the Board to reconsider its affirmation of the ALJ's ruling denying the intervenors' motions to strike portions of Buckeye witness Shears' testimony and various exhibits to the application. UNU reiterates its position that Mr. Shears was not qualified as an expert on each of the areas addressed in the exhibits to the application or on some of the topics discussed in his testimony, and improperly offered opinion testimony as to the economic

benefits of the project and on the impact of the project on property values. Further, UNU states that Mr. Shears did not know the emissions offset factor. UNU characterizes specific portions of Mr. Shears' testimony and various exhibits to the application as hearsay and restates its request that specified portions of his testimony and exhibits to the application be stricken from the record. UNU asserts that, but for the hearsay testimony and the exhibits to the application, there is no basis in the record for the Board to find the certificate meets the criteria to grant a certificate contained in Section 4906.10(A), Revised Code. UNU also argues that, if Mr. Shears can sponsor the exhibits to the application, in fairness, the Board should admit the deposition transcript, report, and affidavit of Dr. Nissenbaum into the record. (UNU App. at 2-10.)

(16) Buckeye responds that UNU's arguments are without merit. In support of its argument, Buckeye notes that Mr. Shears has years of experience and involvement with 60 wind projects, that the witness was cross-examined by the Board's staff (staff) and intervenors, and that the witness supervised and directed consultants preparing the exhibits to the application. Buckeye reminds the Board that its testimony was filed in advance of the testimony filed by staff and intervenors and that UNU did not seek to depose any of Buckeye's witnesses. Buckeye also argues that UNU has not presented any basis to exclude the exhibits to the application as hearsay. (Buckeye Memo Contra at 4-8.)

(17) Upon consideration of UNU's request that the Board reconsider its affirmation of the ALJ's ruling denying the intervenors' motions to strike portions of Buckeye witness Shears' testimony and various exhibits to the application, the Board finds that UNU's request is without merit. Mr. Shears was cross-examined extensively on various aspects of the application and attached exhibits. However, the Board acknowledges that UNU is correct that Mr. Shears admitted that he could not recall the emissions capacity factor which supported the statement in his testimony that the proposed 70 turbines "would offset about 300,000 to 415,000 tons of carbon dioxide emissions every year" from other electric generation facilities (Buckeye Ex. 4 at 4; Tr. 30-34). The Board reasons that the witness's inability to answer a specific question, relates to the witness' credibility on the issue, rather than a reason to, as

UNU requests, strike the witness' testimony and leave nothing in the record on such factors. The Board has the discretion to accord testimony more or less weight based on the credibility of the witness, and did so in this instance. UNU has not presented any new or persuasive arguments, which were not previously considered by the Board regarding this issue. Accordingly, UNU's request for rehearing should be denied.

Screening at Fairview Cemetery

(18) In its application for rehearing, Buckeye requests that the Board grant rehearing for the purpose of clarifying Condition 30 of the Order. Condition 30 requires that Buckeye work with the owners of Fairview Cemetery (Fairview) and the property owners adjacent to Fairview, to develop a screening plan to be reviewed and accepted by staff that will, at a minimum, screen along the west and north sides of the chain link fence that serves as a property boundary between the two parcels. Specifically, Buckeye argues that Condition 30, as written, does not account for the possibility that the owners of Fairview or the adjacent property owners may not wish to have the screen put in place as contemplated by Condition 30. Buckeye asserts that it should not be required to install the screen against the wishes of the owners of Fairview or the adjacent property owners. To clarify this issue, Buckeye requests that language be added to Condition 30 to specify that, if an adjacent property owner and/or the owners of Fairview do not want screening put in place, Buckeye may not erect screening around the property. The modification requested by Buckeye effectively removes the mandatory screening requirement and makes screening permissive based on the wishes of the Fairview owners and the adjacent property owners. (Buckeye App. at 5-6.)

(19) In response to Buckeye's request, the County asserts that the obligations set forth in Condition 30 could be waived, if the owners of the cemetery were not in favor of screening the cemetery. Specifically, the County states that the Board of Trustees of Union Township is the owner of Fairview and is agreeable to amending the condition to allow for a delay in screening, until a reasonable time after turbines are erected, which would allow the owners time to determine the appropriate screening plan or whether a waiver of the

screening option is preferred. The County states that it believes this would be accomplished within five years after the turbine closest to Fairview is operable. (County Memo Contra at 3.)

(20) The Board agrees with the recommendation of Buckeye, that the owners of Fairview and the adjacent property owners should not be forced to submit to mandatory screening if they do not want the installation of any screening. However, the Board believes that waiting five years after the operation of the turbine nearest the cemetery is too long and allows for too many intervening factors. The Board believes that the owner of Fairview and the adjacent property owners should be able to ascertain, within 90 days after the operation of the turbine nearest Fairview, whether screening is appropriate and to begin working with Buckeye to develop the screening plan. Therefore, we find that Condition 30 should be revised to provide that, within 180 days after the operation of the turbine nearest Fairview, Buckeye, the owner of Fairview, and the adjacent property owners should submit a screening plan, or a waiver of this condition, to staff for its approval. Accordingly, Buckeye's request for rehearing, with regard to this issue, should be granted and Condition 30 is revised to the extent set forth herein.

Hazard to Aviation at Weller Airport

(21) Buckeye argues that the Board erred with regard to Condition 36, which prohibits the construction of the turbines deemed a hazard to Weller. According to Buckeye, this condition is unreasonable and unlawful because it ignores the possibility that the area now known as Weller may, at some point in the future, no longer be used for aviation. In support of its argument, Buckeye asserts that, at the discretion of the owners of Weller, the airport could be deactivated and the property could be put to a different use. Buckeye asserts that Condition 36 should be modified to allow Buckeye to construct the turbines affecting Weller, if Weller is deactivated. (Buckeye App. at 6-7.)

(22) In response, the County argues that this issue is not ripe for reconsideration. Specifically, the County asserts that Weller is currently being used for aviation, as a public-use airport, and, therefore, Buckeye's assumption that Weller may cease to be

used for aviation at some time in the future is not sufficient to support a change in Condition 36. Moreover, the County asserts that Buckeye may seek to alter or amend its certificate, if new conditions arise, which warrant modification. (County Memo Contra at 4.) The City of Urbana echoed the arguments advanced by the County (Urbana Memo Contra at 1-3).

(23) UNU argues, in response to Buckeye's request, that there is nothing in the record to evidence whether the turbines at issue are a hazard to Weller, Grimes, or both. Moreover, UNU asserts that the Board does not have the authority to allow Buckeye to build turbines conditional upon the deactivation of Weller. Finally, UNU echoes the assertion of the County that, should Weller no longer be used for aviation, Buckeye can apply for an amendment to its certificate. (UNU Memo Contra at 2-3.)

(24) In considering Buckeye's request, the Board is mindful that, at this time, there is no evidence in the record in this case to indicate that Weller will cease to be used for aviation purposes. Moreover, should Weller cease to be used for aviation, as Buckeye believes is possible, Buckeye may apply for an amendment to its certificate. In sum, the Board still believes that Turbines 19, 24, 26, 29, 30, 34, 38, 46, 48, 50, 57, 58, 60, 61, 62, and 63 present a hazard to aviation due to their proximity to Weller, Grimes, or both, at the present time. Accordingly, Buckeye's request for rehearing with respect to the construction of turbines around Weller should be denied.

Foundation Removal Depth

(25) On rehearing, Buckeye argues that the Board was unreasonable when it adopted Condition 58, which required that, when the facility is decommissioned, the foundation for each wind turbine shall be removed to the depth of 60 inches, unless the landowner consents to the removal of 48 inches of the foundation. Buckeye argues that this condition is unreasonable based on its comparison with two other opinion, order, and certificates granted by the Board, in which the parties stipulated to foundation removal to a depth of 36 inches.[3]

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3 See *In the Matter of the Application by Hardin Wind Energy, LLC, for a Certificate of Environmental Compatibility and Public Need for the Hardin Wind Farm*, Case No. 09-479-EL-BGN, Opinion, Order, and

Specifically, Buckeye asserts that decommissioning is a uniform process and should be standardized among all wind farms to minimize confusion. Additionally, Buckeye asserts that the removal of the foundation to a depth of 60 inches would result in additional ground disturbance because the spread foundation would have to be removed, rather than just the 36 inch column on which the turbine is mounted. (Buckeye App. at 8-10.)

(26) No party responded to Buckeye's request for rehearing with respect to Condition 58. Moreover, no party has articulated significant concern over this issue previously. In considering the arguments advanced by Buckeye, as well as the Board's own conclusions regarding this issue, the Board finds that modifying Condition 58 to provide that the turbine foundations should be removed to a depth of 36 inches is reasonable and appropriate. Accordingly, with respect to the depth of foundation removal, Buckeye's application for rehearing should be granted.

Financial Assurance

(27) In its request for rehearing, Buckeye argues that the Board should grant rehearing regarding the amount of the decommissioning bond required under Conditions 69 and 70. Buckeye asserts that the financial requirements imposed on Buckeye in Conditions 69 and 70 are above and beyond what is necessary to ensure funds will be available for decommissioning. Specifically, Buckeye argues that it is unreasonable to: require it to post and maintain financial assurance in the amount of $5,000 per turbine prior to the construction of each turbine; and to require it to maintain a financial assurance in the amount of 100 percent of the net decommissioning costs[4] after the first year of operation, provided that, at no point, the financial assurance be less than 25 percent of the total decommissioning costs. In support of its position that these costs are arbitrary and unreasonable, Buckeye states that these requirements are not consistent with

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Certificate (March 22, 2010) (*Hardin Wind Case*); *In the Matter of the Application of JW Great Lakes Wind, LLC, for a Certificate to Construct a Wind-Powered Electric Generation Facility in Hardin County, Ohio*, Case No. 09-277-EL-BGN, Opinion, Order, and Certificate (March 22, 2010) (*JWGL Wind Case*).

4 Net decommissioning costs are decommissioning costs net the salvage value of the equipment.

the Board's requirements in the *Hardin Wind Case* and the *JWGL Wind Case*, wherein the Board required the developers to post a bond, after five years of operation, in the amount of the greater of $10,000 per constructed wind turbine, 15 percent of the decommissioning costs, or 120 percent of the net decommissioning costs. Moreover, Buckeye argues that the requirements set forth in Conditions 69 and 70 in this case are not supported by the record because testimony was given at the hearing wherein Buckeye witness Shears testified that it was inconceivable that the project would need to be decommissioned in the early years of operation (Tr. at 192-193). Therefore, Buckeye recommends modifying Conditions 69 and 70 to bring them into conformity with the decommissioning conditions in the *Hardin Wind Case* and the *JWGL Wind Case*. (Buckeye App. at 10-14.)

(28) In response to Buckeye's arguments, the County asserts that there is ample evidence in the record to support the establishment of a decommissioning bond at the commencement of construction, rather than waiting a certain number of years after the commencement of operation. Moreover, the County asserts that Buckeye does not offer any new rationale in support of its request for rehearing, again relying on the testimony of Buckeye witness Shears. Moreover, the County points out that this case is based on a lengthy evidentiary record. Therefore, the County argues that the Board should not put uniformity before the public interest by replacing the Order in this case with conditions from stipulations reached in other cases. (County Memo Contra at 4-6.)

(29) The County also requests rehearing with respect to the financial assurance requirements set forth in Conditions 69 and 70. The County argues that the Board has not stated any evidence demonstrating that the requirement that Buckeye post and maintain a bond of $5,000.00 per turbine prior to construction of each turbine is sufficient. The County also asserts that the Board erred in requiring Buckeye to maintain a bond in the amount of 100 percent of the net decommissioning costs, to be no less than 25 percent of the decommissioning costs when, in the *Hardin Wind Case* and the *JWGL Wind Case*, the companies were required to maintain a bond in the amount of 120 percent of the net decommissioning costs, to be no less

than 15 percent of total decommissioning costs. (County App. at 8-9.)

(30) In response to the County's request for rehearing on this issue, Buckeye argues that no decommissioning bond is necessary during construction or during the early phases of the project's operation. Buckeye also states that it opposes the County's request because the County seeks to increase the bond amount, from 100 percent to 120 percent of the net decommissioning costs. However, Buckeye indicates that it agrees that rehearing should be granted on these conditions to allow the conditions to be brought into full conformity with the conditions set forth in the *Hardin Wind Case* and the *JWGL Wind Case*, which would lower the minimum bond from 25 percent of the decommissioning costs to 15 percent of the net decommissioning costs or $10,000 per turbine, whichever is greater. (Buckeye Memo Contra at 4-8.)

(31) In considering the rehearing requests of both the County and Buckeye, the Board is mindful that the present case was decided after a lengthy evidentiary hearing, unlike the *Hardin Wind Case* and the *JWGL Wind Case*, which were based on stipulations negotiated and agreed to by the parties in those cases. Moreover, the order in this case represents the balancing of competing evidence and viewpoints that were represented to the Board during the evidentiary hearings, as summarized in the subsequent briefs. Accordingly, the Board does not find it appropriate to grant rehearing for the purpose of bringing our decision in this case, which was based on our careful consideration of the evidence presented in this heavily litigated case, into conformity with stipulations negotiated by different parties in other cases. In addition, neither the County nor Buckeye raised any arguments that were not presented at the hearing in this matter and addressed by the Board in the Order in this case (Order at 72-76). Accordingly, the applications for rehearing filed by Buckeye and the County, as they relate to the financial assurance necessary to ensure funds for decommissioning, should be denied.

Complaint process

(32) In its application for rehearing, the County asserts that the Board erred by failing to require Buckeye to establish a toll-free

telephone number as part of its informal complaint resolution process. Specifically, the County asserts that, because the County will not be part of the informal complaint resolution development process, the Board should require Buckeye to establish a toll-free telephone number, as part of Condition 8(j) to protect the interests of the citizens of Champaign County. (County App. at 5-6.)

(33) In response to the County's request for rehearing on this issue, Buckeye argues that the record does not support the need for a separate toll-free number for complaints. Moreover, Buckeye points out that Condition 8(j) requires Buckeye to submit an informal complaint resolution process to staff for approval at least 30 days prior to construction. According to Buckeye, the proposed complaint resolution process will contain all aspects of the process. (Buckeye Memo Contra at 2-3.)

(34) In considering the County's request for rehearing with respect to the informal complaint resolution process, the Board is mindful that a complete complaint resolution process will be submitted to staff for approval prior to the commencement of construction. At this time, and before the complaint process has even been crafted, the Board finds that it is unnecessary to require the establishment of a toll-free telephone number solely for the purpose of reporting informal complaints, as a toll-free telephone number will be established for public contacts regarding facility operation, pursuant to Condition 48. However, the Board does not intend its disposition of this assignment of error to express any opinion as to the appropriateness of such a telephone number for inclusion in Buckeye's informal complaint process that will be submitted to staff. Accordingly, the County's application for rehearing should be denied, as it relates to the establishment of a toll-free telephone number specifically for the reporting of informal complaints.

(35) UNU also requests rehearing on this issue and argues that the complaint resolution process should be modified. In support of its assertion, UNU states that it believes the complaint resolution procedure should have been submitted as part of the application, in order to allow for public input, and that the process should be expanded to include issues beyond noise. Moreover, UNU asserts that Buckeye should be required to

provide staff with the funds necessary to retain a consultant to investigate complaints or, in the alternative, require Buckeye to forward a detailed record of the complaint procedure to the Board, to allow the Board and the public to monitor the degree to which complaints are arising. UNU also requests an absolute limit on the acceptable noise level, with potential mitigation efforts included. (UNU App. at 65-66.)

(36) In response to UNU's application for rehearing on this issue, Buckeye points out that this is the same argument that UNU made in its reply brief. However, in responding to UNU's request for rehearing, Buckeye asserts that there is no requirement that Buckeye submit a complaint resolution procedure as part of its application. Moreover, although UNU requests that the complaint resolution procedure be expanded to cover complaints beyond noise, Buckeye points out that, in the Order, the Board opened up the complaint resolution procedure to include other complaints, not just noise-related complaints. With respect to the actual complaint resolution process, Buckeye states that nothing in the Order prohibits the Board from investigating a complaint, but that requiring the Board to hire a consultant to investigate complaints and requiring every complaint to be filed with the Board would be inefficient. Finally, Buckeye asserts that there is no statutory authority mandating the imposition of an absolute noise standard. (Buckeye Memo Contra at 49-51.)

(37) In considering UNU's request for rehearing, the Board agrees with Buckeye that the arguments made therein are nothing but a reiteration of the arguments made by UNU in its reply brief, which the Board rejected. UNU has not presented any new or persuasive arguments that were not already considered. Moreover, as previously stated, an informal complaint process will be submitted for staff review and acceptance. Moreover, as noted in the Order, the formal complaint process, as provided for in Section 4906.97, Revised Code, is available to anyone alleging a certificate violation. Accordingly, UNU's application for rehearing with respect to the complaint resolution process should be denied.

Road Bond

(38) The County asserts, in its application for rehearing, that the Board failed to clearly state who would have authority to determine the amount of the road bond in Condition 56. Specifically, the County advocates that the Champaign County Engineer should have authority to determine the amount of the road bond to be posted. (County App. at 6-7.)

(39) In its memorandum contra, Buckeye argues that, as written, Condition 56 is not ambiguous, but clearly directs staff to approve the amount of the bond in coordination with the Ohio Department of Transportation (ODOT) (Buckeye Memo Contra at 4).

(40) In considering the County's request, the Board does not find that Condition 56, as written, is ambiguous. Buckeye is directed to secure a road bond or similar surety, through the Champaign County Engineer's Office. However, the amount of the bond itself is to be approved by staff in coordination with ODOT, not the Champaign County Engineer. Moreover, the Board finds the County's assertion that approval by staff and ODOT will not sufficiently protect the interests of the County to be unfounded. Nothing in the record suggests that a bond approved by staff and ODOT will not be sufficient to protect the interests of the County. Accordingly, the County's request for rehearing with respect to the road bond should be denied.

Noise Assessment Analysis and Noise Impact

(41) In its application for rehearing, UNU argues that the project will cause serious discomfort, sleep deprivation, and health issues. UNU raises 10 issues related to the noise assessment and predicted noise levels, in support of its argument that the Buckeye project, as certificated, fails to meet the criteria set forth in Section 4906.10(A)(3) and (6), Revised Code.

UNU Noise Rehearing Request 1

(42) UNU asserts that the Board should limit the noise level from the facility to 5 A-weighted decibels (dBA) above the

background sound level to avoid impacts on the community, complaints, and sleep disturbance. UNU claims Buckeye made numerous errors in its evaluation of the background noise in the community. According to UNU, it is apparent from the Board's decision that it fails to understand that 5 dBA above background is not the point at which the new noise becomes audible, but the point at which the noise becomes objectionable to a significant number of people. UNU notes that the noise from wind turbines is more noticeable than the noise from other noise sources such as highways, railways, airplanes, and industrial noise. UNU notes that Buckeye recognized that New York and other states use 5 dBA over the background sound level as a guideline for siting wind energy projects. (UNU App. at 11-15.)

(43) Buckeye retorts that UNU does not cite any evidence to support its claim that the Board's failure to adopt an absolute 5 dBA noise limit will result in misery for a significant number of citizens in the community. Buckeye reiterates that 5 dBA over background sound level was used as a design goal for the facility but is not, as UNU implies, the noise limit. Buckeye reasons, as Buckeye witness Hessler testified, that this design goal is not useful as a regulatory standard for wind projects in rural areas with scattered residences, because such a standard is seldom, if ever, possible to achieve particularly under critical wind speed conditions and would preclude the development of wind projects east of the Mississippi River. Buckeye notes that the 2004 Pedersen and Persson Waye study, on which UNU relies, UNU Ex. 47, determined that the community was annoyed by wind turbine noise primarily when spending time outdoors and also found that the number of respondents disturbed in their sleep by wind turbine noise was too small to be statistically meaningful. (Buckeye Memo Contra 8-12.)

(44) In reaching our decision, as set forth in the Order, the Board considered the arguments made by UNU on rehearing and the arguments in response made by Buckeye. UNU has not presented any persuasive arguments not already considered by the Board. Accordingly, UNU's request that the Board reconsider its Order and adopt a 5 dBA above the background operational noise standards for the Buckeye project should be denied.

UNU Noise Rehearing Request 2

(45) UNU requests that the Board reconsider its Order and adopt a noise standard for times when the wind speed at hub height is high and atmospheric conditions at ground level are calm. UNU contends this phenomenon, "stable atmospheric conditions," occurs 67 percent of the time during the summer season. For this reason, UNU asserts that Buckeye based its noise assessment analysis on the incorrect assumption that higher wind speeds at ground elevation mask turbine noise. Accordingly, UNU renews its request that the Schneider report, marked as UNU Ex. 63, and UNU witness James' testimony thereto, be admitted into evidence and considered by the Board. In the alternative, UNU claims there is sufficient information regarding stable atmospheric conditions for the Board to amend the certificate to include meaningful numeric noise limits under such circumstances. (UNU App. at 15–18.)

(46) Buckeye notes that UNU relies on UNU Ex. 63, an exhibit which was initially withdrawn by UNU and, in a second attempt by UNU, denied admission into the record by the ALJ (Tr. 830, 922, 1462-1465). Buckeye asserts that there is no need for the Board to consider UNU's request for rehearing on the admission of the exhibit, as the evidentiary rulings were proper. Nonetheless, if the Board considers UNU's arguments, Buckeye acknowledges, through the testimony of Buckeye witness Hessler, that the phenomenon occurs. However, Buckeye notes Mr. Hessler testified that, based on his analysis of the curve comparing wind speeds to background noise, the phenomenon is site specific and neither rare nor common. Recognizing that the phenomenon occurs, Buckeye argues, the Board's decision not to incorporate a numeric noise limit on such basis was not unreasonable or unlawful. (Buckeye Memo Contra 12-14.)

(47) The Board finds that UNU is essentially requesting that the Board review the procedural ruling made by the ALJ at the hearing. While the Board finds that the ALJ's ruling regarding UNU Ex. 63 at the hearing was correct, our consideration of UNU's request for rehearing on this issue must be determined on procedural grounds. The Board notes that UNU failed to raise this issue for the Board's consideration through an

interlocutory appeal, in accordance with Rule 4906-7-15(B), O.A.C. UNU also had the option to raise the issue in its initial brief, in accordance with Rule 4906-7-15(F), O.A.C. Since we are now at the rehearing phase and UNU failed to timely present this issue for the Board's consideration before the Board issued its Order on Buckeye's application, the Board finds UNU's attempt to raise the issue on rehearing improper. Therefore, UNU's request that the Board grant rehearing and admit UNU Ex. 63 into the record should be denied.

UNU Noise Rehearing Request 3

(48) UNU requests rehearing of the Order on the basis that the Board erred by accepting Buckeye's noise assessment analysis. UNU reiterates its position, that Buckeye's noise assessment analysis underestimates the noise levels, as a result of several alleged errors. UNU argues that the noise assessment analysis: incorrectly evaluates background noise; fails to account for stable atmospheric conditions; is inaccurate based on the wind turbine modeled versus the wind turbine to be installed; fails to account for errors in turbine manufacturer supplied data; fails to appropriately verify the noise modeling; uses the incorrect ground absorption coefficient; and fails to correctly model the wind turbines as line sources or point sources. UNU predicts that Buckeye's noise assessment underestimates the noise level by 12.4 dBA to 15.4 dBA. With that prediction, UNU reasons that five nonparticipating residences will be exposed to wind turbine noise in the range of 52 to 67 dBA. UNU argues that there is no evidence in the record to support the Board's statement in the Order, that the walls of a residence reduce the noise impact by 20 dBA to 32 dBA. UNU also contends that the Board's Order failed to consider noise impacts during the daytime. For these reasons, UNU requests that the Board: reject Buckeye's noise assessment analysis; establish a 5 dBA over background noise level of 27 dBA, as determined by UNU, at nonparticipating property lines or an absolute limit of 35 dBA; and direct Buckeye to perform a new noise assessment analysis correcting the errors alleged by UNU. Once Buckeye completes the new noise assessment analysis, UNU requests an opportunity to conduct discovery and that the record in this case be reopened to adjudicate the accuracy of the new noise assessment. (UNU App. at 18-27.)

(49) In response, Buckeye contends that the noise assessment analysis, and the Board's conclusion that the noise assessment analysis is reasonable, is amply supported by the record. Buckeye argues that, pursuant to Condition 6 of the Order, Buckeye is required to operate the facility within the noise parameters set forth in its noise assessment analysis presented in the application. Buckeye admits, as stated in the application, "that wind turbine noise is highly variable with wind and atmospheric conditions and will normally fluctuate roughly into a +/- 5 dBA about the mean predicted level..." Regarding UNU's arguments on the wind turbine modeled versus the wind turbine ultimately installed, Buckeye points out that Condition 49 directs Buckeye to provide staff, at least 60 days prior to the commencement of construction, with the model of the wind turbine to be installed. Further, Buckeye commits to a turbine model similar in design, appearance, and operating characteristics to the Nordex N90, Nordex 100 or RePower MM92. (Buckeye Memo Contra at 14-20.)

(50) Initially, the Board notes that UNU mischaracterizes the Order. Buckeye claimed, as confirmed by staff, that the noise assessment analysis represented a conservative estimate or "worst case" impact during normal atmospheric conditions, because noise observation measurements were made outside the residence. According to the noise assessment analysis, "[a]t night, there are a number of homes that exceed the projected 34 dBA design goal but only five non-participating residences are expected to experience sound levels slightly in excess of 40 dBA outside the house." (Buckeye Ex. 1, Ex. K at 27; Buckeye Ex. 26 at 4; Buckeye Br. at 23.) Further, the application states that "inside levels should be 10 to 20 dBA lower" in the residence (Buckeye Ex. 1 at Ex. K). In its application for rehearing, UNU does not cite any evidence challenging this statement. With a nighttime noise assessment range of 40 to 42 dBA at the exterior of the residence, in the Order the Board reasoned that, based on the reduction of the noise inside a residence, the range of 40 to 42 dBA would be reduced by 10 to 20 dBA to a noise assessment range between 20 to 32 dBA inside the residence (Order at 58). UNU incorrectly states that the Board believes a residence reduces the noise assessment measured at the exterior by 20 to 32 dBA. (Buckeye Ex. 1 at Ex. K; Staff Ex. 2 at 46).

(51) In addition, the Board focused the discussion in the Order on the nighttime noise assessment measures, when most people are likely sleeping, based, in great part, on UNU's claims regarding sleep disturbance and health affects. Nonetheless, we emphasize that Buckeye is directed to operate the facility reasonably within the daytime and nighttime noise parameters set forth in the application.

(52) Moreover, the Board finds that UNU has not presented any new arguments for the Board's consideration as to the alleged errors regarding the noise assessment analysis. In the Order, the Board determined that Buckeye's noise assessment was reasonable, as to the method by which the noise assessment was conducted, and the resulting noise levels predicted in light of the issues raised by UNU. We also noted and relied on the fact that UNU's assessment and Buckeye's assessment of the background noise differed by only 2 dBA. (Order at 55.) Furthermore, by requiring Buckeye to operate at the levels stated in its noise assessment analysis presented in the application as a condition to the certificate, the Board negates the affect of any errors in the noise assessment that could increase the noise level, including the selection of a noisier turbine. We also note that, as is the process in all other certificate proceedings before the Board, one aspect of staff's duties is to verify that Buckeye's design plan and equipment, including the wind turbine model to be installed, comply with the Board's Order and the conditions of the certificate issued. Staff will verify the same in this case. The Board's intent with the adoption of Condition 49, and the directive that we reasonably expect the proposed project to operate within the noise parameters presented in the application, was to effectively foreclose Buckeye from selecting a noisier wind turbine than it evaluated in the noise assessment analysis (Order at 64, 92). For these reasons, we find that UNU's request for rehearing on this aspect of the Order should be denied.

UNU Noise Rehearing Request 4

(53) UNU requests that the Board revise the Order to limit noise from the wind turbines to an absolute standard of 35 dBA or to 5 dBA over background noise. In UNU's opinion, noise levels of 40 to 42 dBA from the wind turbines will expose the

community to serious annoyance, sleep deprivation, and health impacts. According to UNU, its position is supported by the numerous studies submitted into evidence by UNU. UNU emphasizes that, because of amplitude modulation, wind turbine noise is perceived as annoying at approximately 10 dBA below the sound level of other noise sources. UNU states that Buckeye witness Mundt admits that there is an association between sleep deprivation and health effects. UNU reiterates that the World Health Organization (WHO) recommends that noise be limited to 30 dBA for a "good night's sleep." UNU asks the Board to focus on WHO's conclusions, contained in Buckeye Ex. 18, that adverse health effects are directly observed at noise levels above 40 dB. Further, UNU points out that WHO concluded that, while there presently is no evidence of a direct, causal link that the biological effects observed at noise levels below 40 dB are harmful to health, this does not address the health effects for which there is indirect evidence of a causal relationship. WHO also observes that children, the chronically ill, and the elderly are more susceptible to body movements, awakening, self-reported sleep disturbance, and arousals caused by noise between 30 dB and 40 dB. UNU cites the Pedersen and Persson Waye surveys in support of its arguments. The Pedersen and Persson Waye surveys concluded that, at 35 dBA and above, persons exposed to wind turbine noise were rather annoyed, or highly annoyed to very annoyed. UNU requests that the Order be amended to regard sleep disturbance, and physical or mental discomfort as adverse health effects, and that the Board adopt an absolute noise standard of 35 dBA or 5 dBA above background noise. (UNU App. at 27-43.)

(54) Buckeye notes that the studies on which UNU focuses its arguments on rehearing do not support UNU's position. For example, Buckeye notes, as stated in the Order, one of the studies, contained in Ex. 47, concludes that only a low number of respondents were annoyed indoors by wind turbine noise. Further, Buckeye argues that the Pedersen and Persson Waye studies refute UNU's request for absolute noise standards. Buckeye notes the 2004 Pedersen and Persson Waye study, contained in UNU Ex. 47, concluded that there was no correlation between wind turbine noise and sleep disturbance by turbine noise; furthermore, the number of respondents disturbed in their sleep by turbine noise "was too small for

meaningful statistical analysis but the probability of sleep disturbance due to wind turbine noise cannot be neglected." Buckeye also notes that, in the 2007 Pedersen and Persson Waye study, UNU Ex. 48, of the 764 respondents, only 31 were annoyed by the wind turbine noise and only 11 reported sleep disturbance. Buckeye emphasizes that the 2007 study specifically states that "[i]n our study, no adverse health effects other than annoyance could be directly connected to wind turbine noise. Reported sleep difficulties, as well as feelings of uneasiness, associated with noise annoyance could be an effect of the exposure, but it could just as well be that respondents with sleeping difficulties more easily appraise the noise as annoying." Buckeye asserts that UNU's excerpts mischaracterize the testimony of Buckeye witness Hessler on the 2004 Pedersen Persson Waye study. Buckeye explains that Mr. Hessler's rebuttal testimony on the Pedersen study is important because, although he was familiar with the study, his familiarity was based on a presentation of the study five years earlier. Buckeye states that UNU's allegations on rehearing are misleading and points outs that, on rebuttal, Mr. Hessler testified that his initial testimony on the graph in the Pedersen study may have been overstated as "it's not 35 percent of all people at 40 dBA [that were annoyed by turbine noise] it's only 8 or 9 people out of ... 600-and-something" (*See* Tr. at 2355). (Buckeye Memo Contra at 21-32).

(55) Regarding UNU's comparison of wind turbine noise to transportation noise, Buckeye points out that, in the 2004 Pedersen study, the authors warned that the analysis of annoyance from transportation noise was based on a large amount of data, and "the wind turbine curve on only one study, so interpretations should be done with care." Buckeye reasons that, while the conclusion that wind turbine noise is more perceptible has been discussed in the literature and by the expert witnesses in this case, extrapolation of that concept to sleep deprivation is wholly manufactured by UNU. For these reasons, Buckeye asks that the Board reject UNU's request for rehearing to revise the Order to include an absolute noise limit of 35 dBA or 5 dBA above background noise. (Buckeye Memo Contra at 25.)

(56) The Board previously considered the arguments raised by UNU regarding the adoption of a noise limit over background.

On rehearing, UNU fails to raise any new persuasive arguments in support of its request to adopt an absolute noise limit on wind turbine noise of 35 dBA or 5 dBA over background noise. Therefore, the Board concludes that UNU's request for rehearing on this issue should be denied.

UNU Noise Rehearing Request 5

(57) In the alternative, if the Board does not grant rehearing and adopt an absolute noise standard of 35 dBA or 5 dBA above background noise, UNU requests that the Board adopt a 1.25 mile setback, for randomly placed turbines, or 2.0 miles for rows of turbines, from any nonparticipating neighbor's property line to avoid annoyance, sleep disturbance, and health effects on the community. UNU reasons that the 914 feet minimum from a residence and minimum 590 feet from neighboring property lines is not a proper setback for noise. In support of its request for rehearing on this issue UNU relies on the personal experience and testimony of UNU witnesses Taylor, and James, as well as the studies and/or testimony of Dr. Harry and Dr. Nissenbaum. UNU asserts that France has a 1.25 mile setback for wind turbines. UNU also supports its request for a 1.25 mile setback for noise based on Mr. James' testimony that noise from point source turbines attenuates to about 35 dBA at 1.25 miles from the turbine. Furthermore, UNU opines that line source turbines, turbines arranged in rows, attenuate at half the rate of point source turbines and should be located at least two miles from the nearest residence. (UNU App. at 43-47.)

(58) In response, Buckeye argues that UNU has failed to state, with sufficient specificity, why the Board's ruling rejecting a 1.25 mile setback is unreasonable or unlawful as required by Section 4903.10, Revised Code. Buckeye also states that UNU has failed to raise any new arguments and urges the Board to deny the request for rehearing. (Buckeye Memo Contra at 32-36.)

(59) Upon consideration of this request for rehearing, the Board finds that UNU has not presented any new arguments not already considered by the Board. As such, the Board concludes that UNU's request that the Board grant rehearing and adopt an absolute noise standard of 35 dBA or 5 dBA above background noise or, in the alternative, a 1.25 mile setback, for

randomly placed turbines, or a 2.0 miles setback for rows of turbines, from any nonparticipating property line should be denied.

UNU Noise Rehearing Request 6

(60) UNU argues that the Board erred by failing to include any C-weighted (dBC) limitation on low frequency noise. Specifically, UNU argues that dBC noise is the most harmful component of the noise spectrum and, while the Board summarized some of the testimony concerning low frequency noise, it did not include a standard for such noise in the Order. In support of its position, UNU argues that the Board ignored the testimony by Buckeye witness Hessler and UNU witness James that the walls and roofs of residences will not reduce the low frequency noise that causes the most annoyance and sleep deprivation. UNU disagrees with the Board's conclusion as to the level of noise likely to be experienced inside neighboring residences, as predicted and accepted by the Board, given that it does not account for dBC noise. Therefore, UNU argues that the Board has not sufficiently examined the facility's low frequency noise impact. UNU requests that the Board reject Buckeye's noise assessment analysis and direct Buckeye to use other accepted noise assessment methodologies to evaluate and describe the operational low frequency noise levels predicted day and night at nonparticipating property lines. UNU further proposes setting an absolute limit for low frequency noise at the receiving property line. (UNU App. at 43-47.)

(61) Buckeye reminds the Board that UNU made a similar request, in its brief, that the Board adopt an absolute limit of 60 dBC and 20 dB above the measured dBA preconstruction, long-term background sound level, plus 5 dB at the nonparticipating property line; however, the Board's Order did not adopt UNU's low frequency noise limits. Buckeye argues that UNU's arguments are without merit and the record does not support the implementation of a low frequency noise limit. Buckeye restates its position that UNU did not present any witnesses recommending a low frequency noise limit. Buckeye reiterates Buckeye witness Hessler's testimony, that wind turbine amplitude modulation is often confused with low frequency noise. Further, according to Mr. Hessler, the amount of low frequency noise generated by wind turbines is

"inconsequential" and difficult to distinguish from the level of low frequency noise occurring in rural farming communities. Further, Buckeye reminds the Board that sound measurements taken in a field exhibit high levels of low frequency noise where no wind turbine is present. For these reasons, Buckeye argues that the record does not support UNU's request for low frequency noise limits and urges the Board to deny UNU's request for rehearing. (Buckeye Memo Contra at 36-41.)

(62) The Board finds that UNU has not raised any argument on rehearing that would convince the Board that upwind rotor designed wind turbines emit low frequency noise at sufficient levels to require the adoption of a C-weighted, low frequency noise limit. At best, we find the record inconclusive on low frequency noise at nonparticipating residences and nonparticipating property lines. Nonetheless, the Board directed that, as a condition of the certificate, Buckeye operate the project pursuant to the noise assessment levels predicted in the application, including the low frequency noise levels, and required the adoption of a complaint process by Buckeye. With these conditions in place, the Board finds that the noise associated with the facility is not so adverse to the public interest that the predicted operational noise, considering both A-weighted noise and C-weighted noise, rises to a level sufficient to override the construction of the facility. Accordingly, we find that UNU's request for rehearing of this issue should be denied.

UNU Noise Rehearing Request 7

(63) UNU asserts that the Order fails to include any standard for operational noise levels at neighboring property lines as required by Rule 4906-17-08, O.A.C. UNU notes that, according to the application, the noise assessment analysis predicts some properties will experience noise levels above 50 dBA at the property line, but does not specifically state how many properties will be affected. Noise levels of 50 dBA to 55 dBA at the property line will, according to UNU, deprive nonparticipating neighbors of the use and enjoyment of their property. Noting the noise level at the property line of certain other generation facilities cited by Buckeye of 55 dBA, 67 dBA,

and 75 dBA,[5] UNU argues that the noise standards in the other Board proceedings are not applicable to this case, as none involved wind turbines. UNU asserts that the noise produced by wind turbines includes amplitude modulation as opposed to other generation facilities, which likely affected far fewer residences than the proposed wind facility. UNU also argues that, as a legal principle, it is erroneous for the Board to take judicial notice of facts in opinions from prior proceedings. UNU reasons that the noise levels approved by the Board in its other proceedings provide no guidance in this case and the Board's reliance on those proceedings would be an error. UNU recommends the Board revise the Order to include a noise limit at the property line of nonparticipating properties of 5 dBA above background, a limit of 35 dBA and a differential of no more than 20 dB between A-weighted and C-weighted sound. (UNU App. at 53-58.)

(64) Buckeye reminds the Board that its application was filed pursuant to the requirements of Chapter 4906-13, O.A.C., which requires a description of the operational noise levels expected at the nearest property boundary. As required by the rules, Buckeye states that the application includes the sound contours at critical wind speeds, in both day and nighttime conditions. Buckeye explains that a comparison of its 50 dBA design goal at property lines to the operational noise levels of other generation facilities is appropriate. Further, Buckeye notes that the operational noise levels predicted in this case are below the noise levels cited for other generation facilities. Buckeye points out that, in UNU's arguments regarding judicial notice, UNU did not cite any point in the Order where the Board relied on the facts of the listed generation cases. To the contrary, Buckeye argues that the record in this case, including the application, the testimony of Buckeye witnesses Hessler and Mundt, and the Pedersen and Persson Waye studies support a finding that operational noise from the turbines will not have an adverse impact at nonparticipating properties. Buckeye requests that the Board deny UNU's

5 In re *American Municipal Power-Ohio, Inc.*, Case No. 06-1358-EL-BGN, Opinion, Order, and Certificate at 39 (March 3,2008); In re *Aquila Fulton County Power, LLC*, Case No. 01-1022-EL-BGN, Opinion, Order, and Certificate at 12 (May 20, 2002); In re *PG&E Dispersed Generating Co.*, Case No. 00-922-EL-BGN, Opinion, Order, and Certificate at 10 (February 12, 2001), respectively.

application for rehearing of this issue. (Buckeye Memo at 41-43.)

(65) The Board recognizes UNU's request for rehearing on this issue to be the restatement and expansion of an argument made by UNU in its brief and already considered by the Board in its Order. First, the rules in Chapters 4906-13, or 4906-17, O.A.C., are filing requirements that do not necessarily become certificate conditions as UNU suggests. As summarized in the Order, in reference to noise, setbacks, and health affects, Buckeye's noise assessment analysis evaluated the background noise assessment in wintertime conditions, when environmental sounds are normally lowest and measured at the exterior of residences. Further, according to the noise assessment and testimony offered by Buckeye, where a proposed turbine is sited near a nonparticipating property line, the noise assessment predicted that sometimes noise levels will exceed 50 dBA by a few decibels at the critical wind speeds. Pursuant to Condition 6, the facility is reasonably expected to operate at the noise assessment levels set forth in the application at nonparticipating residences and at nonparticipating property lines. With that requirement as a condition of the certificate, as well as the incorporation of an informal complaint process by Buckeye, the Board finds that noise concerns at nonparticipating properties have been addressed. Moreover, the Board finds that the record does not support the adoption of noise limits at nonparticipating property lines as requested by UNU. Therefore, the Board concludes that this aspect of UNU's application for rehearing should be denied.

UNU Noise Rehearing Request 8

(66) UNU urges the Board to reconsider the setback requirements adopted in the Order on the basis of the testimony offered by wind turbine proponents and/or beneficiaries of the proposed wind facility. UNU reiterates its interpretation of the studies by Pedersen and Persson Waye, Harry and Dr. Nissenbaum and the testimony of UNU witness James regarding the noise associated with wind turbines, as well as the testimony offered by UNU witnesses Wunsch and Taylor as to the degree of noise each has experienced personally. (UNU App. at 58-59.)

(67) In its memorandum contra, Buckeye notes that this is a repeat of UNU's arguments on brief which were rejected by the Board in the Order. Further, Buckeye emphasizes that the Board's Order did not cite to the testimony of UNU's lay witnesses, the Order also did not cite to the testimony of Buckeye's lay witnesses, Cyr, Bauer, or Barce, in regard to noise and turbine setback issues. (Buckeye Memo Contra at 43-45.)

(68) The Board notes that this is a repeat of the arguments offered by UNU on brief. The Board considered the testimony of public witnesses offered at the public hearing and the testimony offered at the evidentiary hearing regarding the noise output of wind turbines. Pursuant to the requirements of Section 4903.09, Revised Code, the Board cited sufficient information in the Order to support its decision. Therefore, the Board concludes that UNU has not presented any new arguments for the Board's consideration on this matter and, therefore, the request for rehearing should be denied.

UNU Noise Rehearing Request 9

(69) Regarding the noise assessment analysis and noise impact of the proposed wind turbine facility, UNU requests rehearing on Buckeye's proposed siting of wind turbines. UNU requests that the Board direct Buckeye to perform the noise assessment analysis again and to relocate the proposed turbines to avoid noise impacts to residents of more than 5 dBA above background noise and prohibit noise levels in excess of 35 dBA. UNU notes that, as proposed, 1,004 homes are located within 0.62 mile of a proposed turbine. UNU contends that Buckeye is not, at this stage, contractually obligated to use the proposed turbine sites. UNU urges the Board to prohibit Buckeye from constructing any turbine that is estimated to increase noise levels more than 5 dBA above background noise and noise levels in excess of 35 dBA at neighboring properties in order to protect the comfort, health, and properties of the residents of the community. (UNU App. 60-63.)

(70) According to Buckeye, one of the many factors it considered in determining a location for the wind facility was Champaign County's environmental factors such as habitat, cultural resources, and property setback requirements. Buckeye also notes, as County witness Hess, Champaign County

Commissioner testified, 85 to 90 percent of the acreage in the county is devoted to agriculture. Buckeye explains that sound constraints/noise is one factor among many considered in the project design and siting process. (Buckeye Memo Contra at 45-47.)

(71) As discussed in the Order and previously herein, the Board finds that UNU's request for rehearing of the noise assessment analysis and noise impacts are without merit. In the Order, we considered UNU's arguments on this issue and we determined that the noise assessment analysis reasonably evaluated the noise impact of the proposed facility. Accordingly, the application for rehearing requesting that the Board adopt a noise limit of 5 dBA above background noise and to prohibit noise levels in excess of 35 dBA should be denied.

UNU Noise Rehearing Request 10

(72) UNU argues that the Board should revise the Order to include objective parameters to determine whether the noise from the wind turbines is excessive. UNU argues that Buckeye's noise assessment analysis underestimates the noise levels likely to occur at neighboring properties. Further, UNU states that the Order is vague and does not afford any guidance on when the project would be operating in noncompliance. UNU notes, for example, that, in its orders for other types of electric generation facilities, the Board has stated specific operational noise limits. Further, UNU states that staff witness Strom testified that staff would consider the facility to be in violation of the noise assessment if, under the normal course of operations, over extended periods of time, the turbines are determined to be operating outside the noise parameters (*See* Tr. at 1902). UNU contends the Order does not clearly set forth what Buckeye's operational noise requirements. (UNU App. at 63-65.)

(73) Buckeye responds that the Order adopted the operational noise parameters set forth in the application and expanded the complaint resolution procedures to include noise complaints. Buckeye believes that UNU mischaracterizes the testimony of staff witness Strom. Buckeye points out that Mr. Strom clarified his testimony to explain that he did not interpret the noise parameters to require the wind turbines to absolutely

operate at the stated noise level (*See* Tr. at 1903). (Buckeye Memo Contra at 47-49.)

(74) In our Order, the Board determined that Buckeye's noise assessment was reasonable, in light of the issues raised by UNU. Further, by requiring Buckeye to operate at the noise levels stated in its noise assessment as presented in the application, the Board negates the effect of the errors alleged by UNU. The Order, therefore, provides an objective operational noise level for the facility. The Board interprets Mr. Strom's testimony as an appropriate recognition of the intermittent nature of the wind and, therefore, the intermittent nature associated with the noise emanating from the wind turbines. As we recognized in the Order, the record does not support the adoption of absolute noise levels as requested by UNU; However, we expect that the proposed project will reasonably operate within the noise parameters presented in the application and recognize that, depending on weather conditions, the wind turbines may, for limited periods, operate at sound levels above that modeled in the application. The Board finds that it has thoroughly considered the evidence in the record on the noise impacts of the facility and UNU has not presented any new persuasive arguments not already considered. Accordingly, UNU's request for rehearing for the Board to adopt absolute, objective operational noise standards for the Buckeye project should be denied.

(75) As a part of its third assignment of error, UNU raises 10 issues related to the noise assessment and predicted noise levels, to make its overall argument that the Buckeye project, as certificated, fails to meet the criteria set forth in Section 4906.10(A)(3) and (6), Revised Code. The Board notes that Section 4906.10(A), Revised Code, requires the Board not to grant a certificate for the construction, operation, and maintenance of a major utility facility, either as proposed or as modified by the Board, unless it finds and determines, among other things that:

> (3) The facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations.

...

(6) The facility will serve the public interest, convenience, and necessity.

For all the reasons set forth above in this entry on rehearing regarding the noise assessment analysis and noise impact of the facility, in addition to the reasons set forth in the Order, the Board affirms its determination that the noise impact of the facility has been extensively considered and the facility, with the conditions imposed by the Board, represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives. Furthermore, with the certificate conditions, the Board finds that the noise associated with the facility is not so adverse to the public interest that the operational noise level predicted rises to a level sufficient to override the construction of the facility.

Post-Certificate Conditions

(76) UNU argues that conditions allowing for post-certificate alterations, information submission, and similar measures unfairly undermine the purposes of the evidentiary hearing. Moreover, UNU asserts that allowing post-certificate modifications unfairly relieves Buckeye of its burden of proof, circumvents the Board's process, and unfairly deprives intervenors of due process. Specifically, UNU objects to the following eight conditions, and subparts, which it believes allow for improper post-certificate modifications:

(a) Condition 8(e)-(f), (h)-(j) - information to be provided by Buckeye to staff for review and acceptance regarding final electric collection system plan, tree clearing plan, geotechnical report, fire protection and medical emergency plan, and noise complaint resolution procedure.

(b) Condition 15 - the development of a post-construction avian and bat mortality survey to be approved by staff and members of the Ohio Department of Natural Resources; Condition 16, the development of a habitat conservation plan

and associated incidental take permit from the United States Fish and Wildlife Service regarding the potential take of Indiana bats.

(c) Condition 33 - Buckeye shall provide staff with both the maximum potential distance of blade shear from the turbine models under consideration and the formula used to calculate the distance.

(d) Condition 40 - Buckeye shall conduct an in-depth vertical Fresnel-Zone analysis to determine if Turbine 37 will cause microwave interference, and mitigate any interference pursuant to staff review and approval.

(e) Condition 45 - Buckeye shall not construct Turbine 70, as proposed, but may modify the location of proposed Turbine 70.

(f) Condition 46 - Buckeye may propose an adjusted location of Turbine 57, so that it complies with the minimum property line setback.

(g) Condition 49 – Buckeye must file a letter with the Board, at least 60 days prior to construction that identifies which of the three turbine models listed in the application has been selected. If Buckeye selects a turbine model not contemplated in the application, additional conditions apply.

According to UNU, these conditions allow the Board to defer consideration of important project information, siting considerations, and compliance/mitigation measures until after the evidentiary hearing has concluded and the certificate issued. UNU argues that all of the information required under these conditions should have been submitted before the certificate was issued, because to do otherwise undermines the evidentiary hearing process, and allows the Board to disregard evidence that should be considered. (UNU App. at 67-70.)

(77) In response, Buckeye argues that UNU is simply seeking to delay the issuance of a certificate until it is satisfied with every detail of the project. Instead, Buckeye relies on Section 4906.04,

Revised Code, which requires the Board to issue certificates for proposed projects. Therefore, Buckeye argues that, because certificates may be issued to projects that are in the proposal stage, the certificate must be issued on estimated impacts. Moreover, Buckeye asserts that Section 4906.10, Revised Code, allows the Board to render a decision upon the record either granting or denying the application as filed, or granting it upon such terms, conditions, or modifications of the construction, operation, or maintenance of the major utility facility as the board considers appropriate. According to Buckeye, this is what the Board has done in this case, because each of the conditions UNU objects to were based upon the record before the Board. In addition, Buckeye asserts that the Board must consider applications for certificates as expeditiously as practicable, pursuant to Section 4906.07(A), Revised Code. Every possible construction detail cannot always be proposed or analyzed at the time of the application and hearing. However, by imposing conditions, Buckeye believes that the Board is able to assure that the proposals contained in the application are not materially or substantially modified. Finally, Buckeye asserts that, if the Board determines that any of the information submitted pursuant to the above-referenced conditions results in a material increase in any environmental impact or a substantial change in the location of all or a portion of the facility, the Board could construe such information as an amendment to the application and require a hearing on the proposed modification. Accordingly, Buckeye asserts that the Board acted properly in imposing the above-referenced conditions. (Buckeye Memo Contra at 52-55.)

(78) In considering this assignment of error, the Board is mindful that it has already responded to these concerns in the Order. Specifically, the Board stated that the preconstruction conference with staff is part of a long-standing policy of the Board to ensure compliance with the requirements of the certificate, as well as the requirements of any other state or federal agency. The Board agrees with the assertion of Buckeye that any material modification to the proposed facility, either in terms of a material increase in the environmental impact or a substantial change in the location of a portion of the facility, would be construed as an amendment to the certificate which would require a hearing. UNU raises nothing new in the assignment of error. Moreover, UNU has not made any

argument that would lead the Board to believe that the imposition of these conditions is unlawful or unreasonable. Accordingly, the Board finds that UNU's request for rehearing, as it relates to conditions requiring post-certificate actions is without merit and should be denied.

Emergency Medical Flights

(79) UNU asserts that the Board did not properly evaluate the proposed facility's impact on CareFlight operations in Champaign County. UNU contends that, although the Board recognized the testimony of UNU witness Holland, it did not recognize the extent to which medical emergency response time would be effected by the construction of the proposed facility. According to UNU, Mr. Holland testified that, during certain cloud ceilings, flight time would increase by six minutes as a result of having to fly around the turbines. (UNU App. at 70-71.)

(80) In response, Buckeye asserts that, while UNU does not take issue with the Board's summary of Mr. Holland's testimony, UNU believes the Board did not place appropriate weight on his testimony. Instead, Buckeye argues that the Board gave the testimony of Mr. Holland appropriate weight, as Mr. Holland testified that the turbines would only present an obstacle during certain types of cloud cover. Moreover, Buckeye maintains that, although UNU makes much of Mr. Holland's testimony that patients may have to be moved to be picked up, that is not an uncommon occurrence. Finally, Buckeye points out that, in his testimony, Mr. Holland stated that he has little concern about the effects of the project on emergency medical flights within Champaign County (*See* Tr. at 2166-2167, 2177-2200). (Buckeye Memo Contra at 55-56.)

(81) In reviewing the contentions of the parties, the Board believes that it has already thoroughly considered this issue. In its order, the Board considered the potential side-effects of the construction of the project, as described by Mr. Holland, and found that the project would not substantially interfere with aviation, as long as turbines deemed hazardous by the FAA were not constructed. UNU raises nothing new in this assignment of error that was not considered and addressed in

the Order; therefore, UNU's request for rehearing on this issue should be denied.

Property Rights

(82) UNU asserts that the Board failed to require Buckeye to maintain an adequate distance between the turbines and neighboring property lines, which will impair surrounding property values and neighbors' rights to develop and use their property. UNU argues that this amounts to a violation of Section 4906.10(A)(2),(3), and (6) and a taking in violation of the United States and Ohio Constitutions. In support of its arguments, UNU claims that the Board ignored evidence in UNU's initial brief indicating that the project will significantly impair the ability of neighboring landowners to utilize their property to its highest and best use, as development potential can be impaired by the potential for noise, shadow flicker, and ice throw, rendering otherwise developable land unsuitable for development. Therefore, UNU asserts that setbacks should have been measured from the neighboring property line, or the nonparticipating landowners should be compensated for their loss through requiring Buckeye to obtain a wind conservation easement from each affected nonparticipating landowner. According to UNU, such an easement would be similar to a land easement and would provide that no future development would occur on the effected area and require Buckeye to provide compensation to the party granting the easement. (UNU App. at 71-73.)

(83) In response, Buckeye asserts that it is well established in Ohio case law that an entity should not take permitting or zoning actions based on future plans; rather, the application can only be considered as it is proposed, as the project area is currently configured. Moreover, according to Buckeye, UNU's concerns over disturbing the quiet rural nature of the project areas are contradicted by UNU's concerns over hindering the developmental potential of the area. In response to UNU's assertion that landowners will be deprived of the development of pieces of their property, amounting to a taking, Buckeye asserts that, to prove a taking, there must be more than a loss of market value or loss of the comfortable enjoyment of the property. According to Buckeye, the setbacks established by the General Assembly do not allow for an unconstitutional

taking, but instead, protect the public safety. Moreover, Buckeye asserts that nothing contained in the language of Section 4906.20, Revised Code, prohibits a nonparticipating landowner from future development on property located within the setback distance; rather, the owner may develop property within the setback at their own choosing. (Buckeye Memo Contra at 57-64.)

(84) The Board finds that UNU raises nothing in its application for rehearing that it has not already raised at the evidentiary hearing or in its brief. Moreover, in reviewing our consideration of the evidence put forth by UNU, the Board cannot find that it did not take serious consideration of all evidence before it when it issued the Order in this case. Accordingly, UNU's request for rehearing, as it relates to property values, should be denied.

Setbacks

(85) UNU asserts that the Board erred in determining that the setbacks contained in Section 4906.20(B)(2), Revised Code, and Rule 4906-17-08(C), O.A.C., are adequate to protect the health, safety, and well-being of nonparticipating neighbors. UNU argues that there is no basis in the record for the Board to conclude that the setbacks proposed in Buckeye's application are adequate. Specifically, UNU asserts that the Board ignored evidence from two of the three turbine manufacturers that indicated that greater setbacks were needed. UNU also argues that the Staff Report acknowledges that shadow flicker will exceed limits at five residences, as will noise. Therefore, UNU concludes that the Board could not have found the setbacks contained in Section 4906.20(B)(2), Revised Code, and Rule 4906-17-08(C), O.A.C. to be adequate in this case. Moreover, UNU criticizes staff and the Board for not independently verifying the appropriateness of the minimum setbacks created by the general assembly in Section 4906.20(B)(2), Revised Code. (UNU App. at 73-76.)

(86) In response, Buckeye asserts that the Board weighed the evidence before it and determined that the setbacks for the facility were adequate. Specifically, Buckeye states that the Board evaluated the proposed setbacks with an emphasis on shadow flicker, noise, blade shear, and health impacts and

found that the proposed setbacks were adequate to protect residents from those risks. (Buckeye Memo Contra at 64-66.)

(87) In our order, the Board considered the evidence presented at the evidentiary hearing, regarding the alleged inadequacy of Ohio's statutory minimum setbacks. Upon consideration of such evidence, the Board concluded that the minimum setbacks were sufficient to protect residents from the concerns articulated by UNU. UNU does not express any new arguments in its request for rehearing. Instead, UNU argues with the conclusion reached by the Board when weighing and considering the evidence presented at the hearing. Therefore, UNU's request for rehearing as it relates to setbacks should be denied.

Improper Delegation

(88) UNU argues that the Board improperly delegated its authority to issue a certificate under Section 4906.10, Revised Code, to the ALJs. In support of its assertion, UNU states that the procedure leading up to the issuance of the Order in this case indicates that the Board did not fulfill its duties and, instead, adopted, without proper consideration, an Order that was predrafted by the ALJs. According to UNU, the order was apparently prepared before the first meeting of the Board, at which the Board did not discuss the application, evidence, or arguments of the parties. UNU does acknowledge that discussion of the decommissioning conditions did occur amongst Board members at the meeting. However, UNU asserts that this was not sufficient to show that the Board had thoroughly considered the Order. UNU further contends that, if the Board was going to delegate authority to the ALJs, it should have done so in a public order, setting forth the specific duties delegated. According to UNU, because the Board did not to do so, an unlawful delegation of decision-making occurred. (UNU App. at 76-77.)

(89) In response, Buckeye notes that Section 4906.02, Revised Code, provides that "all hearings, studies and considerations of application for certificates shall be conducted by the Board or representatives of its members." Buckeye further avers that the Chairman of the Board is also the Chairman of the Public Utilities Commission of Ohio (Commission), and the ALJs,

members of the Commission's legal department, conducted the hearing and presumably drafted the order for the Board's consideration. Moreover, Buckeye asserts that the Board signed the Order and, just because all of the Board members met to consider the case and did not engage in a lengthy discussion of the case, one cannot automatically assume that the Board did not read or independently consider the Order before it was signed. (Buckeye Memo Contra at 66-68.)

(90) In considering this issue, the Board is mindful of the recent decision of the Supreme Court of Ohio (court) in *In re the Application of Am. Transm. Sys., Inc.* (May 4, 2010), 2010-Ohio 1841, wherein the court found that an order, signed by the Board, demonstrates that the order was considered by the Board. Moreover, the court concluded that drafting an order and deciding an order are not the same, and nothing in the Revised Code prohibits the Board from delegating the drafting of an order to an ALJ. In addition, the court relied on a long-standing presumption of regularity, wherein, in the absence of evidence to the contrary, a public board is presumed to have properly performed its duties. Accordingly, UNU's request for rehearing on the grounds that the Board improperly delegated its duties to the ALJs should be denied.

Section 4903.09, Revised Code

(91) UNU argues that the Board abused its discretion to the extent that the Order fails to set forth the evidence relied upon by the Board and to present detailed analysis to explain its decision or the rationale on which the Board relied to make its decision, as required pursuant to Section 4903.09, Revised Code, particularly with regard to the Board's decision on noise, health, environmental, and socioeconomic impact. UNU also argues that the Order specifically states that evidence not addressed was considered and weighed by the Board in reaching its final decision. UNU also emphasizes that the Order states that any issue as to the environmental impact or the minimum adverse environmental impact raised by a party that is not addressed in the Order, is denied by the Board. UNU considers these aspects of the Order to be deficiencies and requests that the Board revise the Order accordingly. (UNU App. at 1.)

(92) On the other hand, Buckeye argues that the Board's Order meets the requirements of Section 4903.09, Revised Code, as the statute as been interpreted by the court. In support of its position, Buckeye cites several Commission proceedings interpreting the statutory provision. Buckeye lists the portions of the Order that analyze the parties' arguments and the corresponding reasoning of the Board as set forth in the Order. (Buckeye Memo Contra at 2-4.)

(93) In its orders the Board, like the Commission, is required to put forth sufficient detail for the court to determine the basis for the Board's decision. *Allnet Communications Serv., Inc. v. Pub. Util. Comm.* (1994), 70 Ohio St.3d 202, 209, 638 N.E. 2d 516. The Board's orders also must set forth some factual basis and reasoning for reaching its conclusion. *Id.; Ohio Domestic Violence Network v. Pub. Util. Comm.* (1994), 70 Ohio St. 3d 311, 323, 638 N.E.2d 1012. The Board notes that the Order in this case is over 100 pages and summarizes virtually all the evidence presented in this case. Therefore, we concluded that the Order meets the requirements of Section 4903.09, Revised Code, and UNU's request for rehearing on this issue should be denied.

It is, therefore,

ORDERED, That Buckeye's motion to strike be granted. It is, further,

ORDERED, That UNU's motion to strike be denied. It is, further,

ORDERED, That Buckeye's application for rehearing be granted, in part, and denied, in part, as set forth herein. It is, further,

ORDERED, That UNU's application for rehearing be denied. It is, further,

ORDERED, That the County's application for rehearing be denied. It is, further,

ORDERED, That a copy of this entry on rehearing be served upon each party of record and any other interested persons of record.

THE OHIO POWER SITING BOARD

Alan R. Schriber, Chairman of the
Public Utilities Commission of Ohio

Lisa Patt-McDaniel, Board Member
and Director of the Ohio Department of
Development

Sean Logan, Board Member
and Director of the Ohio Department
of Natural Resources

Alvin Jackson M.D., Board Member
and Director of the Ohio Department
of Health

Christopher Korleski, Board Member and
Director of the Ohio
Environmental Protection Agency

Robert Boggs, Board Member and
Director of the Ohio Department
of Agriculture

Ali Keyhani, Ph.D., Board
Member and Public Member

GNS/KLS/vrm

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JUL 15 2010

Reneé J. Jenkins
Secretary