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SLIP OPINION NO. 2016-OHIO-1513

**IN THE MATTER OF THE APPLICATION OF CHAMPAIGN WIND, L.L.C., FOR A
CERTIFICATE TO CONSTRUCT A WIND-POWERED ELECTRIC GENERATING
FACILITY IN CHAMPAIGN COUNTY, OHIO; CHAMPAIGN COUNTY ET AL.,
APPELLANTS; POWER SITING BOARD ET AL., APPELLEES.**

**[Until this opinion appears in the Ohio Official Reports advance sheets, it
may be cited as *In re Application of Champaign Wind, L.L.C.*, Slip Opinion
No. 2016-Ohio-1513.]**

*Power Siting Board—Wind-powered electric-generation facility—Determination
approving siting of facility was lawful, reasonable, and not against the
manifest weight of the evidence—Order affirmed.*

(No. 2013-1874—Submitted December 16, 2015, Decided April 13, 2016.)

APPEAL from the Power Siting Board, No. 12-160-EL-BGN.

FRENCH, J.

{¶ 1} Appellants, a collection of local governmental entities and residents, appeal a decision made by appellee the Ohio Power Siting Board (the “board”) that

granted a certificate to intervening appellee, Champaign Wind, L.L.C. (“Champaign Wind”), to construct a wind-powered electric-generation facility, or wind farm, in Champaign County. Appellants challenge various evidentiary and procedural rulings by the board and the board’s ultimate determination that the proposed wind farm meets the statutory criteria for siting a major utility facility. After reviewing the record and considering the parties’ arguments, we hold that appellants have established neither that the board’s order is unlawful or unreasonable nor that the board’s alleged errors affected the outcome of the proceeding. Accordingly, we affirm the board’s order.

Facts and Procedural Background

{¶ 2} In 2012, we affirmed a board order that granted a certificate to construct the Buckeye Wind Farm in Champaign County. That was the first time we reviewed a siting decision to construct a wind farm. *See In re Application of Buckeye Wind, L.L.C.*, 131 Ohio St.3d 449, 2012-Ohio-878, 966 N.E.2d 869, ¶ 1-3. Less than three months after we released *Buckeye Wind*, Champaign Wind, a sister company of the Buckeye Wind Farm developer, filed an application to construct another wind farm in Champaign County. Champaign Wind labeled this wind farm “Buckeye Wind II.”

{¶ 3} In its application, Champaign Wind proposed to build up to 56 wind turbines, along with access roads, underground and overhead electric cables, construction-staging areas, an operations-and-maintenance facility, a substation, and up to four meteorological towers, on 13,500 acres of private land leased from about 100 participating landowners. Champaign Wind’s application sought approval to install one of seven proposed turbine models, and it explained that it would make a final decision on which model to install closer to the time of construction.

{¶ 4} Appellants, Union Neighbors United, a nonprofit corporation formed to address issues relating to the placement of wind turbines in Champaign County,

along with three individual neighbors of the proposed wind farm (collectively, the “neighbors”), intervened to oppose Buckeye Wind II. Several local governmental entities, including appellees Champaign County and three local townships (collectively, the “county”), also intervened. Most of these entities and individuals were parties in *Buckeye Wind*. *Id.* at ¶ 4.

{¶ 5} The parties conducted significant discovery, and board staff investigated the wind farm’s potential impact. The board held a three-week hearing in November and December 2012, and it later issued a 103-page opinion approving Champaign Wind’s application and granting a certificate approving the construction of Buckeye Wind II. The certificate was subject to 72 conditions designed to mitigate known or foreseeable issues. Two of those conditions prohibited Champaign Wind from constructing four of its proposed turbines because their proposed location did not meet staff’s recommended setbacks. This lowered the total number of turbines for the project to 52.

{¶ 6} After the board denied motions for rehearing, both the neighbors and the county appealed to this court, raising 13 propositions of law between them. Champaign Wind intervened to defend the board’s order.

Analysis

{¶ 7} Under R.C. 4906.12, we apply the same standard of review to power-siting determinations that we apply to Public Utilities Commission orders. *Buckeye Wind*, 131 Ohio St.3d 449, 2012-Ohio-878, 966 N.E.2d 869, at ¶ 26. Under that standard, we reverse, modify or vacate an order only when our review of the record reveals that the order is unlawful or unreasonable. R.C. 4903.13; *see also Constellation NewEnergy, Inc. v. Pub. Util. Comm.*, 104 Ohio St.3d 530, 2004-Ohio-6767, 820 N.E.2d 885, ¶ 50. We will not reverse or modify a board decision as to questions of fact where the record contains sufficient probative evidence to show that the board’s decision was not manifestly against the weight of the evidence and was not so clearly unsupported by the record as to show

misapprehension, mistake or willful disregard of duty. *Monongahela Power Co. v. Pub. Util. Comm.*, 104 Ohio St.3d 571, 2004-Ohio-6896, 820 N.E.2d 921, ¶ 29. That is, we show deference to the board’s specialized expertise. *Id.* Appellants bear the burden of demonstrating that the board’s decision is against the manifest weight of the evidence or is clearly unsupported by the record. *Id.* We have, however, “complete and independent power of review as to all questions of law” in appeals from the board. *Ohio Edison Co. v. Pub. Util. Comm.*, 78 Ohio St.3d 466, 469, 678 N.E.2d 922 (1997).

{¶ 8} The board has exclusive authority to issue certificates of environmental compatibility and public need for construction, operation, and maintenance of “major utility facilities,” such as the proposed wind farm at issue here. *See Buckeye Wind* at ¶ 2; R.C. 4906.01, 4906.03, and 4906.13. Under R.C. 4906.10(A), the board shall not issue a certificate unless it finds that the proposed application meets eight substantive criteria. A majority of the county’s and neighbors’ arguments relate to procedural or evidentiary errors they allege the board committed during both discovery and the adjudicatory hearing. The county and neighbors also, however, assert that the proposed wind farm did not meet the following two criteria in R.C. 4906.10(A): that the “facility represents the minimum adverse environmental impact” and that “the facility will serve the public interest, convenience, and necessity.” R.C. 4906.10(A)(3) and (6).

{¶ 9} To organize the county’s and neighbors’ various propositions of law, we have divided their arguments into four groups: (1) blade throw and setbacks, (2) wind-turbine noise, (3) the public interest, convenience, and necessity prong of R.C. 4906.10(A), and (4) other procedural and evidentiary arguments.

I. Propositions of law relating to blade throw and setbacks

{¶ 10} “Blade shear” or “blade throw” is potentially dangerous; it occurs when a rotating wind-turbine blade or blade segment tears off and is thrown from the turbine. The term “setback” refers to the distance between a turbine and a

neighbor's residence or property line. On appeal, the neighbors assert that they were improperly prevented from obtaining discovery about or presenting evidence on blade throw, and both the neighbors and the county assert that the setbacks the board approved for Buckeye Wind II are not sufficient to serve the public interest or to meet the other statutory criteria under R.C. 4906.10(A).

A. *Neighbors' Proposition of Law No. 2: whether the board abused its discretion by quashing the neighbors' third-party subpoenas regarding blade-throw incidents*

{¶ 11} In April 2012, two blades detached from a wind turbine at the Timber Road II Wind Farm in Paulding County, and blade debris scattered around the surrounding area. One month later, Champaign Wind filed its application in this case and listed the turbine model used at Timber Road, the Vestas V100, as one of the seven possible turbine choices for Buckeye Wind II.

{¶ 12} During discovery, the neighbors issued a subpoena duces tecum to the owner and operator of Timber Road, EDP Renewables North America, L.L.C. ("EDP"), requesting, among other things, (1) all documents relating to any blade failure on any wind turbine operated by EDP and (2) more specifically, all documents relating to the Timber Road blade-failure incident. The neighbors also issued subpoenas to two wind-turbine manufacturers—Gamesa Wind US, L.L.C. ("Gamesa") and The General Electric Company, L.L.C. ("GE")—because they manufactured three of the turbine models that Champaign Wind had identified as possible choices for Buckeye Wind II. The neighbors requested all documents relating to any blade-failure incident on any model of the manufacturers' turbines.

{¶ 13} After the neighbors issued these subpoenas, Champaign Wind notified the board that due to the ongoing investigation into the Timber Road blade-failure incident, it was no longer considering the Vestas V100 as a possible option for Buckeye Wind II. EDP then moved to quash the neighbors' subpoena, arguing that the neighbors sought irrelevant information because Champaign Wind had

dropped the Vestas V100 from consideration for Buckeye Wind II. EDP also argued that the neighbors' subpoena was unreasonable and oppressive. Gamesa and Champaign Wind filed similar motions to quash the neighbors' third-party subpoenas. The board's administrative-law judge ("ALJ") quashed the neighbors' entire subpoena to EDP on overbreadth and relevancy grounds, and the ALJ quashed the subpoenas to GE and Gamesa in part, by requiring them to produce documents only about blade failures involving the specific turbine models that Champaign Wind was still considering for Buckeye Wind II.

{¶ 14} On appeal, the neighbors assert that the board abused its discretion and violated their discovery rights by not allowing their third-party subpoenas to EDP, Gamesa, and GE. The neighbors argue that the blade-throw threat to the public is not unique to certain models of turbines and that information about other blade throws, including one that occurred in Ohio, at Timber Road, was therefore relevant to determining whether Champaign Wind was taking the most appropriate safety precautions for Buckeye Wind II.

{¶ 15} We hold that the neighbors have not established reversible error. Similar to a trial judge, the board "is granted very broad discretion in the conduct of its hearings." *Greater Cleveland Welfare Rights Org., Inc. v. Pub. Util. Comm.*, 2 Ohio St.3d 62, 68, 442 N.E.2d 1288 (1982). Even if the board errs in a procedural or evidentiary ruling, this court will not reverse the board's order unless the error prejudiced, i.e., meaningfully affected, the appellant. *See id.* And the appellant "bears the 'burden of demonstrating * * * that it has been or will be prejudiced by the error.'" (Ellipses sic.) *In re Complaint of Buckeye Energy Brokers, Inc. v. Palmer Energy Co.*, 139 Ohio St.3d 284, 2014-Ohio-1532, 11 N.E.3d 1126, ¶ 24, quoting *A.K. Steel Corp. v. Pub. Util. Comm.*, 95 Ohio St.3d 81, 88, 765 N.E.2d 862 (2002). The neighbors have not shown that they were prejudiced by any errors as to any category of documents requested in their third-party subpoenas.

**1. General (non-Timber Road-related) document requests
in the neighbors' third-party subpoenas**

{¶ 16} The board did not abuse its discretion by quashing the portions of the neighbors' subpoenas that contained general discovery requests directed to third parties EDP, Gamesa, and GE. The requests sought "all documents" relating to turbine-blade failures at "any wind turbine project" of EDP and "any wind turbine" of Gamesa or GE. In the absence of time or design parameters, the ALJ reasonably limited the neighbors' discovery to turbines that might be used at Buckeye Wind II. The board correctly found on review that these general requests were overbroad and not designed to discover evidence relevant to the proposal that was before the board. Accordingly, the board's decision was a reasonable exercise of its discretion.

**2. Timber Road-related document requests in the
neighbors' third-party subpoenas**

{¶ 17} The neighbors' document requests to EDP regarding the Timber Road blade-failure incident identified a specific event at a specific place and time; therefore, they were not overbroad. Instead, the board found that those requests were irrelevant because they related to a turbine model that was not under consideration in the proposed project. We hold that the neighbors have not established that the board abused its discretion or that they were prejudiced by the exercise of that discretion.

{¶ 18} First, the board's regulations gave it the authority to quash a subpoena "if it is unreasonable or oppressive." See former Ohio Adm.Code 4906-7-08(C) (repealed Dec. 11, 2015). Additionally, in board proceedings, "the Rules of Civil Procedure should be used wherever practicable," see R.C. 4903.082 and 4906.12, and Civ.R. 45(C)(3)(d) requires a trial judge to quash a subpoena if it subjects a person to an "undue burden." With its motion to quash, EDP submitted a sworn affidavit from an in-house attorney who attested that 90 employees would

be required to search the records in their possession for six to seven hours each in order for EDP to respond to the neighbors' document requests relating to the Timber Road incident. The ALJ reviewed the relevant factors in the board's regulations and Civ.R. 45(C) and found that the neighbors' requests were not relevant. The ALJ therefore concluded that "it would be unreasonable to force EDP, a nonparty, to expend its time and resources towards a request that is unlimited in scope." In response, the neighbors failed to resubmit a narrower subpoena. Under these circumstances, we cannot hold that the board abused its discretion.

{¶ 19} Second, the neighbors have failed to sufficiently articulate how the board's decision meaningfully affected them. The board ultimately allowed the neighbors to present evidence at the hearing about the Timber Road blade-failure incident. For example, the ALJ admitted into evidence a lengthy incident report detailing the causes of the incident. On appeal, the neighbors argue that notwithstanding introduction of the incident report, further discovery was necessary because the "wind industry" has previously concealed information about turbine-safety issues and their subpoenas were needed to determine independently whether EDP had truthfully reported details about the Timber Road incident. The neighbors' arguments, however, amount to speculation, and we decline to reopen this case to allow the neighbors to subpoena a nonparty's internal documents solely on that basis. See *Elyria Foundry Co. v. Pub. Util. Comm.*, 114 Ohio St.3d 305, 2007-Ohio-4164, 871 N.E.2d 1176, ¶ 35 (rejecting a prejudice claim that not only was speculative but was supported by no argument or evidence as to how the alleged error prejudiced the appellant). Accordingly, we reject this proposition of law.

B. *Neighbors' Proposition of Law No. 3: whether the board abused its discretion by limiting the neighbors' cross-examination regarding the Timber Road incident*

{¶ 20} During the hearing, the neighbors attempted to cross-examine a board investigator, Andrew Conway, about board staff's investigation into the Timber Road blade-failure incident. The board, however, prohibited some of the neighbors' questions. In denying the neighbors' motion for rehearing, it held that questions regarding "[t]he distance [that] turbine blades traveled at a different wind farm with a turbine model that is not under consideration in this proceeding" were "irrelevant."

{¶ 21} On appeal, the neighbors argue that the board abused its discretion by prohibiting them from further cross-examining Conway about Timber Road. We disagree. The record shows that the ALJ permitted Conway to testify on cross-examination regarding the impact the Timber Road incident had on staff's recommendation for Buckeye Wind II. But the ALJ cut off the neighbors' questioning when it veered into *how* Conway personally investigated the Timber Road incident. The neighbors have not demonstrated that the ALJ's decision was an abuse of discretion. Nor have they established that Conway's responses to their questions about his investigation of an incident at a different wind farm would have affected the board's decision in this case. Thus, viewing the totality of the circumstances, the neighbors have not proven that reversal is warranted merely because they were unable to cross-examine Conway about his methodology for investigating the Timber Road incident.

C. *Neighbors' Proposition of Law No. 4: whether the board acted in an arbitrary manner by excluding some of the neighbors' proposed blade-failure evidence*

{¶ 22} During the hearing, the neighbors offered the testimony of William Palmer, an engineer who testified about the dangers of wind turbines. Through

Palmer, the neighbors attempted to introduce the “Caithness database,” a 100-page spreadsheet from the Caithness Windfarm Information Forum website. The database includes details about various worldwide wind-turbine accidents, primarily since the 1990s. The board excluded all evidence related to the Caithness database on hearsay grounds, described it as similar to Wikipedia, in which “anyone can author or edit content without peer review,” and further noted that the Caithness website “disclaim[ed] any accuracy of the items contained within its database.”

{¶ 23} On appeal, the neighbors argue that nothing in the record supported the board’s conclusion that the Caithness database was similar to Wikipedia or that the website had a “disclaimer” of accuracy. The neighbors’ main argument, however, is that the board used an “arbitrary double standard” when applying the hearsay rule, because it excluded evidence about the Caithness database on hearsay grounds but allowed Champaign Wind to introduce similar hearsay evidence.

{¶ 24} As an initial matter, we note that the board’s merit brief fails to cite any record evidence supporting the board’s determination that the Caithness database had a “disclaimer” of accuracy. Champaign Wind’s counsel mentioned the “disclaimer” during oral argument at the board hearing, but opposing counsel’s representations about the characteristics of a website are not record evidence. The board must base its decisions in each case on the factual record before it. *See Elyria Foundry Co.*, 114 Ohio St.3d 305, 2007-Ohio-4164, 871 N.E.2d 1176, at ¶ 31.

{¶ 25} Nevertheless, the neighbors have not proven the main thrust of this proposition of law: that the board used an “arbitrary double standard” in admitting hearsay testimony by other witnesses while excluding the Caithness database and testimony about it on hearsay grounds. To support their claim, the neighbors cite the testimony of staff witness Conway and Champaign Wind witness Robert Poore as hearsay testimony that the board admitted, but neither Conway’s nor Poore’s testimony supports the neighbors’ theory.

{¶ 26} First, as to Conway, the neighbors failed to specifically identify him in this argument in their motion for rehearing. In their rehearing application, the neighbors raised a similar argument that the board acted inconsistently by excluding the Caithness database but allowing the “same type of testimony” from two of *Champaign Wind*’s witnesses—not *staff witness* Conway. Under R.C. 4903.10, an application for rehearing “shall set forth specifically the ground or grounds on which the applicant considers the order to be unreasonable or unlawful,” and “[n]o party shall in any court urge or rely on any ground for reversal * * * not so set forth in the application.” We “strictly construe[] the specificity test set forth in R.C. 4903.10.” *Discount Cellular, Inc. v. Pub. Util. Comm.*, 112 Ohio St.3d 360, 2007-Ohio-53, 859 N.E.2d 957, ¶ 59, citing *Consumers’ Counsel v. Pub. Util. Comm.*, 70 Ohio St.3d 244, 248, 638 N.E.2d 550 (1994). Because the neighbors did not specifically rely on Conway’s testimony for this argument in their application for rehearing, they cannot rely on his testimony here.

{¶ 27} Second, the board did not act arbitrarily by admitting Champaign Wind witness Poore’s testimony while excluding evidence relating to the Caithness database. Poore testified that based on his 30 years working in the wind industry, blade throw is unusual and that he has never known it to injure anyone. On cross-examination, he testified that he would generally hear about blade throws through “word of mouth” or the media. The neighbors point to Poore’s statement that he heard about blade-throw by “word of mouth” to argue that his testimony relied on hearsay. Poore’s opinion on the rarity of blade throw, however, was based on his 30 years of personal experience in the industry. In contrast, with the exception of Palmer, the record does not identify the individuals who submitted information to the Caithness database. Palmer’s testimony was not similar to Poore’s. Palmer was not involved in the wind industry, yet his testimony attempted to introduce specific blade-throw events he had no personal knowledge of. Therefore the neighbors have not established that the board acted in an arbitrary manner.

D. *Neighbors’ Proposition of Law No. 5 and county’s Second Proposition of Law: whether the board’s approval of Champaign Wind’s proposed setbacks was unreasonable or unlawful*

{¶ 28} At the time of the board hearing, the Ohio Administrative Code provided that (1) the minimum distance between a turbine and a neighbor’s property line was required to be at least 1.1 times the total height of the turbine and (2) the minimum distance between a turbine and the nearest neighbor’s residence was required to be 750 feet from the tip of the nearest turbine blade, at 90 degrees. Ohio Adm.Code 4906-17-08(C)(1)(c).¹ Under these regulatory requirements, the minimum setbacks for Buckeye Wind II were 541 feet from a neighbor’s property line and 919 feet from a neighbor’s residence. The board found that all approved turbines for Buckeye Wind II adhered to these regulatory minimum-setback requirements.

{¶ 29} On appeal, both the neighbors and the county assert that the board should have increased the setbacks above the regulatory minimum requirements to protect the public from the potential of blade throw and that because the board failed to do so, the project does not serve the public interest or meet the other substantive requirements for approval of a major utility facility in R.C. 4906.10(A). Specifically, the neighbors argue that setbacks must match at least the distance that blades can actually be thrown. Therefore, the neighbors propose a minimum setback of 1,640 feet from a neighbor’s property line based on their claim that blade pieces have traveled approximately that far in previous blade-throw incidents,

¹ Since the board issued its order in this case, the General Assembly has amended Ohio law to make setbacks a statutory requirement, see 2013 Am.Sub.H.B. No. 59 and 2014 Am.Sub.H.B. No. 483, and the legislature increased the minimum setbacks above those that were established by administrative rule. The new legislation, however, appears to grandfather in “existing certificates” that were certified under the previous minimum setbacks. See R.C. 4906.201. None of the appellants in this case specifically argue that setbacks for Buckeye Wind II failed to meet the regulatory minimum setbacks that were in place at the time of the board’s order.

including at Timber Road. The county argues that setbacks must be increased to conform with the turbine manufacturers' recommendations in their safety manuals. The county relies on Gamesa's safety manual, which states that in the event of a fire near the turbine, the area around the turbine must be cordoned off at a radius of 1,300 feet.

{¶ 30} Whether the setbacks were sufficient to protect the public from potential blade throw was an evidentiary issue, and we have "consistently refused to substitute [our] judgment for that of the commission on evidentiary matters." *Monongahela Power Co.*, 104 Ohio St.3d 571, 2004-Ohio-6896, 820 N.E.2d 921, at ¶ 29, citing *A.K. Steel Corp.*, 95 Ohio St.3d at 84, 765 N.E.2d 862. During the hearing, witnesses for Champaign Wind and for the board staff testified that blade throw is rare and that they had never known it to injure a member of the public. The board also heard and reviewed evidence indicating that Champaign Wind would minimize the already uncommon occurrence of blade throw by taking various safety measures. And the board imposed conditions to further minimize the risk of blade-throw-related injuries, including restricting public access in certain areas and requiring warning signs.

{¶ 31} In addition, the board found that the neighbors' proposed setbacks were based in part on the unreliable testimony of a witness who claimed that he had measured how far blade pieces were thrown at Timber Road. But according to the board, this witness measured the distances four or five days after the incident occurred and he acknowledged that wind may have blown the small fiberglass blade pieces from their original landing spots. On these grounds, the board concluded that this witness's testimony was not reliable and that the Timber Road incident report—which indicated that the largest blade piece had traveled 764 feet from the failed turbine—was more credible.

{¶ 32} As to the county's argument, the board found that the governmental entities misunderstood the setbacks listed in the turbine-manufacturers' safety

manuals. The board interpreted the language in the manuals as referring to recommended clearance areas in the event of temporary safety situations—akin to a temporary evacuation for a gas leak—and that these clearance areas were not meant to be permanent setback distances. In reaching this conclusion, the board also cited staff witness Conway’s testimony that the regulatory minimum setbacks exceeded the manufacturer’s recommended setbacks for the vast majority, if not all, of the wind-turbine models. The county has failed to establish that the board’s interpretation of the safety manuals was unreasonable.

{¶ 33} Finally, we note that these same setbacks were proposed and approved in *Buckeye Wind*, and in that case, we concluded that ample evidence supported the board’s approval of the setbacks. *See Buckeye Wind*, 131 Ohio St.3d 449, 2012-Ohio-878, 966 N.E.2d 869, at ¶ 5, 34. Similarly here, the neighbors and the county have failed to prove that the board’s adoption of the regulatory minimum setbacks was against the manifest weight of the evidence or contrary to the criteria in R.C. 4906.10(A).

II. Propositions of law relating to turbine noise

{¶ 34} In approving *Buckeye Wind II*, the board set noise limits to ensure that turbine noise does not unreasonably annoy nonparticipating neighbors. Similar to their propositions of law relating to blade throw, the neighbors object to the board’s evidentiary and substantive decisions regarding turbine-noise levels.

A. *Neighbors’ Proposition of Law 6: whether the board’s approval of Champaign Wind’s proposed nighttime noise limit was unreasonable or unlawful*

{¶ 35} The board adopted Champaign Wind’s proposed nighttime noise limit of 44 dBA (dBA is a scale that attempts to measure the loudness of sound waves the human ear perceives as audible sound). The board based that limit on a noise-assessment study by David Hessler, an acoustical engineer hired by Champaign Wind. On appeal, the neighbors argue that the board’s decision was

unreasonable and unlawful because (1) Hessler used an inappropriate metric to calculate the noise limit and (2) any noise limit over 35 dBA will cause adverse health effects to neighbors of the turbines. We conclude that the neighbors have not met their burden for reversal on this issue.

{¶ 36} First, in the absence of any statutory guidance regarding how the board should set noise regulations for a wind farm, we defer to the board regarding the appropriate methodology for determining a noise limit. We have previously explained that when a statute does not prescribe a particular formula or methodology, the appropriate administrative agency has broad discretion in deciding how to implement its duties. *Payphone Assn. v. Pub. Util. Comm.*, 109 Ohio St.3d 453, 2006-Ohio-2988, 849 N.E.2d 4, ¶ 25 (“When a statute does not prescribe a particular formula, the PUCO is vested with broad discretion”), citing *Columbus v. Pub. Util. Comm.*, 10 Ohio St.3d 23, 24, 460 N.E.2d 1117 (1984). Here, based on evidence from Champaign Wind and the board staff, the board found that Hessler’s noise assessment was reliable. As the board is the agency with the expertise and statutory mandate to issue certificates siting major utility facilities, its decision here is entitled to deference. *See Payphone* ¶ 25 (“As the agency with the expertise and statutory mandate to implement the statute, the PUCO is entitled to deference”), citing *Constellation NewEnergy*, 104 Ohio St.3d 530, 2004-Ohio-6767, 820 N.E.2d 885, at ¶ 51, and *Migden-Ostrander v. Pub. Util. Comm.*, 102 Ohio St.3d 451, 2004-Ohio-3924, 812 N.E.2d 955; *see also In re Application of Columbus S. Power Co.*, 134 Ohio St.3d 392, 2012-Ohio-5690, 983 N.E.2d 276, ¶ 36 (“we will defer to the commission’s interpretation of a statute ‘where there exists disparate competence between the respective tribunals in dealing with highly specialized issues’ ”), quoting *Ohio Consumers’ Counsel v. Pub. Util. Comm.*, 58 Ohio St.2d 108, 110, 388 N.E.2d 1370 (1979).

{¶ 37} Second, the evidence here was mixed regarding whether turbine noise causes health problems. The neighbors introduced studies attempting to show

that turbine noise can cause sleep deprivation and other health problems. In response, Champaign Wind presented an expert who criticized the neighbors' evidence and concluded—based on numerous other studies—that although turbine noise may be potentially distracting or annoying to some people, exposure to turbine noise has not been scientifically demonstrated to harm humans. The board concluded that the neighbors' evidence “lack[ed] credibility” and therefore rejected their claim of a causal connection between turbine noise and health disorders. On appeal, the neighbors have not proven that the board's decision was against the manifest weight of the evidence. *See Masury Water Co. v. Pub. Util. Comm.*, 58 Ohio St.2d 147, 148, 389 N.E.2d 478 (1979) (“Where conflicting evidence is presented to the commission with regard to a matter at issue, the commission's determination will not be disturbed unless the party who challenges that finding demonstrates that it is manifestly against the weight of the evidence * * *”).

B. Neighbors' Proposition of Law No. 8: whether the board abused its discretion by quashing the neighbors' third-party subpoena to EDP regarding turbine noise at Timber Road

{¶ 38} In their subpoena to EDP, the neighbors requested all records relating to noise produced by any turbine at Timber Road and all records regarding any noise complaints received about Timber Road. The ALJ quashed the subpoena because it was “not tailored in any way to the proposed project.” On appeal, the neighbors argue that the board abused its discretion and applied another “double standard.” Specifically, the neighbors argue that the ALJ quashed their subpoena seeking information about noise complaints at another Ohio wind farm on relevancy grounds but that in approving Champaign Wind's proposed noise limit, the board expressly found it “relevant” that only two noise complaints had been received at Ohio's other wind farms.

{¶ 39} For its part, the board has failed to address this apparent inconsistency in its evidentiary rulings: that is, the neighbors appear to be correct

that the board prohibited them from discovering certain evidence from other wind farms on relevancy grounds but then later relied on evidence from other wind farms to support Champaign Wind's proposed noise-limit methodology. Despite this inconsistency, the neighbors have not demonstrated reversible error. In its motion to quash the neighbors' third-party subpoena, EDP argued that the neighbors' Timber Road-related document requests were unduly burdensome and that Timber Road's siting certificate had already required EDP to submit all noise complaints to the board.

{¶ 40} The neighbors failed to submit a narrower subpoena; nor have they indicated on appeal what kind of noise documents from EDP would have changed the outcome of this case. To obtain reversal, the neighbors must do more than simply point out inconsistencies in the board's evidentiary rulings. "Case law is clear that an allegedly aggrieved party must show that it suffered prejudice from a commission order to warrant reversal." *In re Complaint of Buckeye Energy Brokers*, 139 Ohio St.3d 284, 2014-Ohio-1532, 11 N.E.3d 1126, at ¶ 22. Given that the Timber Road noise complaints were publicly available through other means, the neighbors have not carried their burden to demonstrate that they were prejudiced by the board's decision to quash the neighbors' subpoena that sought the same information from EDP.

C. Neighbors' Proposition of Law No. 7: whether the board erred by setting noise limits at residences rather than at property lines

{¶ 41} As noted, the board approved Champaign Wind's proposed noise limits for Buckeye Wind II, one of which was measured at the nearest neighboring residence. On appeal, the neighbors argue that noise limits should be measured at a neighbor's property line, rather than at the residential structure, so that neighbors can enjoy all of their property free from wind-turbine noise.

{¶ 42} Due to the absence of any statutory or regulatory guidance, this is another issue on which we must defer to the board. In rejecting the neighbors’ argument, the board cited the testimony of Hessler, Champaign Wind’s noise expert, who concluded that the “intent of a noise regulation is to control noise where people spend the majority of their time, particularly at night.” Further, the board found that the inclusion of a noise-complaint resolution process will ensure that the proposed facility will not compromise property owners’ use and enjoyment of their entire property. Accordingly, we conclude that record evidence supports the board’s decision and that the policy issue of whether noise regulations should be measured at residences or property lines is best decided by the regulatory agency assigned to implement such decisions.

D. *Neighbors’ Proposition of Law No. 9: whether the board abused its discretion by refusing to reopen the hearing to admit new evidence about low-frequency noise*

{¶ 43} Low-frequency noise, or infrasound, is not typically perceived or interpreted by humans as sound—hence it is not meaningfully measured by the dBA scale. In its application, Champaign Wind indicated that modern wind turbines “do not generate low frequency or infrasonic noise to any significant extent.” However, at the hearing, Champaign Wind’s noise expert, Hessler, testified that he could not rule out low-frequency noise as a potential problem at wind farms, and he indicated that he was studying low-frequency noise at a wind farm in Shirley, Wisconsin. About a month after the board hearing—but before the board issued its final order—the Wisconsin Public Service Commission released a report on the study mentioned by Hessler during his testimony, and the neighbors moved to reopen the record to introduce the report into evidence. The board refused, finding that the information was “cumulative” and that the neighbors had “ample opportunity” to question Hessler about the findings of the Wisconsin study

during the hearing. On appeal, the neighbors argue that the board abused its discretion in refusing to reopen the record.

{¶ 44} Although we disagree with the board’s rationale for denying the neighbors’ motion—the neighbors did not have “ample opportunity” to question Hessler about the Wisconsin report because the study had not yet been completed at the time of the board hearing—we ultimately conclude that the neighbors have not demonstrated reversible error. The neighbors argue that the Wisconsin report on low-frequency noise “eviscerates” the board’s adoption of Champaign Wind’s proposed nighttime noise limit for Buckeye Wind II, but they do not adequately explain why that is the case. It remains unclear how reopening the hearing would have had any impact on the board’s decision. Accordingly, the neighbors have failed to show that the board’s refusal to reopen the record had any prejudicial effect.

III. Propositions of law relating to the “public interest, convenience, and necessity” prong of R.C. 4906.10(A)(6)

A. *Neighbors’ Proposition of Law No. 1: whether the board acted unlawfully or unreasonably by relying on an allegedly unconstitutional statute*

{¶ 45} When the board approved Champaign Wind’s application, Ohio law required that a portion of the electricity that electric companies sold to their Ohio customers come from renewable-energy resources, and half of that mandate had to be met from facilities located within Ohio. Former R.C. 4928.64(B) and (C), 2012 Am.Sub.S.B. No. 315; *see also* R.C. 4928.01(A)(37) (defining “renewable energy resource” to include “wind energy”). We refer to the latter requirement as the “in-state renewable-energy mandate.” In its order, the board concluded that a “potential benefit” of approving the Buckeye Wind II facility was that Ohio electric companies could contract with the wind farm to fulfill their in-state renewable-

energy mandate, which “add[ed] support” to a finding that the project served the public interest, convenience, and necessity under R.C. 4906.10(A)(6).

{¶ 46} On appeal, the neighbors argue that the “only basis” for the board’s finding that the proposed facility met the requirements of R.C. 4906.10(A)(6) was that it helped electric companies meet their in-state renewable-energy mandate. But that mandate, according to the neighbors, is unconstitutional because the geographic preference it contains is a per se violation of the Dormant Commerce Clause. Thus, the neighbors argue that the board erred by relying on an unconstitutional statute.

{¶ 47} It is unnecessary to opine on the constitutionality of the in-state renewable-energy mandate to resolve this proposition of law because the neighbors’ argument rests on an inaccurate premise. As an initial matter, we note that in 2014—after the board issued the order on appeal—the General Assembly eliminated the in-state renewable-energy mandate. 2014 Sub.S.B. No. 310. More relevant for present purposes, however, the in-state renewable-energy mandate was not the “only basis” for the board’s finding that the proposed project met the public interest, convenience, and necessity prong. Indeed, the board’s order included several factors that the board considered under this prong. For example, the order noted that the renewable energy generated by the proposed wind farm would “benefit the environment and consumers,” and the board found that the project was “designed to have minimal aesthetic impact on the local community.” In its order denying rehearing, the board noted that even if the in-state renewable-energy mandate were not at issue, the proposed wind farm served “the purpose of delivering energy to Ohio’s bulk power transmission system in order to serve the generation needs of electric utilities and their customers.”

{¶ 48} Thus, the neighbors’ argument here relies on an incorrect assumption, and we can reject this proposition of law on that basis alone. Accordingly, it is not necessary to determine whether the now repealed in-state

renewable-energy mandate violated the Dormant Commerce Clause. *State ex rel. DeBrosse v. Cool*, 87 Ohio St.3d 1, 7, 716 N.E.2d 1114 (1999) (“Courts decide constitutional issues only when absolutely necessary”), citing *State ex rel. BSW Dev. Group v. Dayton*, 83 Ohio St.3d 338, 345, 699 N.E.2d 1271 (1998).

B. County’s First Proposition of Law: whether the board required Champaign Wind to post sufficient financial assurance to cover decommissioning costs

{¶ 49} The board ordered that prior to construction, Champaign Wind must post a decommissioning bond pursuant to a formula proposed by board staff and used in other wind-farm cases. Decommissioning bonds ensure that adequate funds exist to remove the turbines when no longer in use. The board’s formula is different from the decommissioning plan approved for the original Buckeye Wind Farm, and according to Champaign Wind, the new formula will result in a much higher decommissioning bond than the bond that the board approved in the *Buckeye Wind* case.

{¶ 50} On appeal, the county argues that the project does not serve the public interest, convenience, and necessity because the board’s formula to calculate the bond may not adequately cover the total costs of decommissioning. The county, however, points to no legal authority that speaks to how the board should calculate a decommissioning bond. In the absence of other legal authority, we reiterate that “[a]ny lack of statutory guidance on that point should be read as a grant of discretion.” *In re Application of Columbus S. Power Co.*, 128 Ohio St.3d 512, 2011-Ohio-1788, 947 N.E.2d 655, ¶ 68; *see also Payphone Assn.*, 109 Ohio St.3d 453, 2006-Ohio-2988, 849 N.E.2d 4, at ¶ 25 (“When a statute does not prescribe a particular formula, the PUCO is vested with broad discretion”). Thus, because the county neither cites legal authority prohibiting the board’s approach nor persuasively explains how the board’s formula is objectively unreasonable, we reject its argument.

IV. Propositions of law related to procedural and evidentiary issues

A. *Neighbors’ Proposition of Law No. 10: whether the board abused its discretion by prohibiting discovery of and cross-examination on drafts of the application and staff report*

{¶ 51} During discovery, the neighbors requested that Champaign Wind produce “drafts and preliminary versions” of its application. Similarly, during the cross-examination of staff witness Conway, the neighbors asked several questions about a draft version of the staff report. The board excluded this evidence, finding that draft versions of the application and staff report were not relevant.

{¶ 52} On appeal, the neighbors argue that the board abused its discretion. To support their argument that the draft applications and related testimony were relevant, the neighbors cite *Shore v. Best Cuts, Inc.*, 8th Dist. Cuyahoga No. 77340, 2000 WL 1754007 (Nov. 30, 2000), a case upholding a trial judge’s finding that drafts of a document were relevant for discovery purposes. *Shore*, however, is easily distinguishable from the situation presented here. In *Shore*, the court held that drafts of a lease agreement were relevant to determining the meaning of a disputed portion of the lease. *Id.* at *2. Here, by contrast, there are no ambiguous terms in Champaign Wind’s application or in the staff report that might be explained by comparing them with an earlier draft. Instead, the neighbors requested draft versions of documents based on the possibility that earlier drafts *may* have contradicted the final versions. The neighbors have failed to establish why potential contradictions between a draft and final version would be relevant to the board’s consideration, which is based on the developer’s final application. Accordingly, we reject this proposition of law.

B. County's Third Proposition of Law: whether the county's due-process rights were violated

{¶ 53} At the hearing, a director of Champaign Wind's parent company introduced Champaign Wind's application into evidence. The county objected on hearsay grounds, arguing that the witness did not have the requisite knowledge and expertise regarding every study and report in the application. The county made a similar objection during its cross-examination of Champaign Wind's ecological consultant, who admitted that although he managed and reviewed a transportation study for the proposed project, he did not personally conduct it. The board overruled the county's objections.

{¶ 54} On appeal, the county argues that the board failed to afford it due process because it had no meaningful opportunity to cross-examine Champaign Wind's experts. Specifically, the county now asserts that both witnesses were unable to answer "many" questions and that Champaign Wind's application and the transportation study were therefore improperly admitted into evidence. The county, however, has not carried its burden of demonstrating error.

{¶ 55} For example, the county repeats throughout its merit brief that the first witness could not answer "many" questions. The witness, however, was cross-examined for two days, and yet the county cites only two pages of testimony, in which the witness's qualifications to testify about acoustic issues are discussed but in which the witness does not refuse to answer any questions for lack of knowledge. The county cannot expect the court to peruse over 400 pages of cross-examination testimony to find support for its claim. Failing to cite the record is a fatal error. *See Ohio Consumers' Counsel v. Pub. Util. Comm.*, 125 Ohio St.3d 57, 2010-Ohio-134, 926 N.E.2d 261, ¶ 52.

{¶ 56} Additionally, the county provides no caselaw to support the position that a party's due-process rights are violated if an opposing party's expert cannot answer all questions on cross-examination. Rather, the failure to answer affects the

expert’s credibility. If the county had additional questions that these individuals could not address, it could have subpoenaed other witnesses. These circumstances do not constitute a due-process violation.

Conclusion

{¶ 57} As in *Buckeye Wind*, 131 Ohio St.3d 449, 2012-Ohio-878, 966 N.E.2d 869, the county and the neighbors have not demonstrated that the board’s decision was unreasonable or unlawful nor that the board’s discovery and evidentiary rulings meaningfully affected the outcome. The county and the neighbors were active participants at every stage of the board proceeding. Indeed, 36 witnesses testified at the three-week hearing, with the neighbors presenting six witnesses and the county presenting four. The parties introduced 122 exhibits, and the hearing resulted in a 3,010-page transcript. The board issued a comprehensive opinion reviewing and addressing all of the parties’ arguments. The county and the neighbors have not proven that it is necessary to reopen the record to engage in more discovery or to hear more evidence. Accordingly, we affirm the board’s order.

Order affirmed.

O’CONNOR, C.J., and O’DONNELL, LANZINGER, and O’NEILL, JJ., concur.

KENNEDY, J., dissents with an opinion that PFEIFER, J., joins.

KENNEDY, J., dissenting.

{¶ 58} Respectfully, I dissent. In affirming the decision of the Power Siting Board (the “board”), the majority concludes that appellants failed to demonstrate that the “board’s decision was unreasonable or unlawful.” Majority opinion at ¶ 57. In my view, the board’s decision to grant the certificate was unreasonable and unlawful because the blade-throw setbacks that the board adopted and the default method to calculate background noise in a rural area that the board approved are unsupported by the record and are against the manifest weight of the evidence.

Therefore, I would reverse the decision of the board and remand for further proceedings consistent with this opinion.

{¶ 59} As the majority correctly states, this court has affirmed prior board decisions granting certificates to wind farms. However, this case represents the first time we have considered setback limits since a turbine at an Ohio windfarm failed and threw a blade and is the first case in which a party opposing a certificate has offered expert opinions on the correct method to calculate background noise in a rural area.

I. *Facts*

{¶ 60} While I agree with the statement of facts set forth in the majority opinion, there are other important facts that should be considered.

A. *Turbines under consideration*

{¶ 61} On May 15, 2012, Champaign Wind filed an application to construct the proposed wind farm. The application originally asked the board to allow Champaign Wind to choose from among seven different proposed wind-turbine models. All of the turbines under consideration are manufactured to conform to international standards that are meant to prevent blade failures. All of the turbines also have the same safety systems, including independent braking systems, ice-detection software, and alarms that trigger an automatic shutdown. Moreover, in the opinion of the experts, all of the turbines under consideration are similar and share the same risk of malfunctioning due to blade shear, lightning, icing, and user error.

B. *Danger of blade throws*

{¶ 62} The certificate as approved by the board permits turbines to be built within 919 feet from nonparticipating property owners' homes and 541 feet from their property lines. When these setbacks were approved, the board relied on the minimum-setback calculation then set forth in R.C. 4906.20, which the board had

adopted as a rule under its rulemaking authority. Former R.C. 4906.20(B)(2), 2008 Am.Sub.H.B. No. 562; Ohio Adm.Code 4906-17-08(C)(1)(c)(i) and (ii).

{¶ 63} The minimum-setback standard was the same standard the board used when the “Timber Road” certificate was granted. After construction of the Timber Road facility, a Vestas V100 turbine at that facility malfunctioned. The blade-failure incident escalated when the operator, located in the state of Oregon, remotely restarted the wind turbine after the initial blade failure had caused the turbine to automatically shut down, which caused debris to be thrown across the landscape. According to an expert who testified before the board, operator error—like remotely restarting a damaged turbine—is the leading cause of wind-turbine failure even where computerized protection systems are in place.

{¶ 64} The board found credible the evidence that the blade failure at Timber Road caused the turbine to throw a piece of its blade weighing around six and one-half pounds a distance of 764 feet. After analyzing the circumstances of that incident, a safety expert testified that in his opinion, the six-and-one-half-pound piece of blade that was thrown 764 feet had the same force at impact as a 40-pound block of concrete falling from an eight-story building.

{¶ 65} After the blade throw incident but while the application for this certificate was pending, Champaign Wind withdrew the Vestas V100 turbine from consideration for this project. Despite that withdrawal, the experts for Champaign Wind and the parties opposing the certificate agreed that the characteristics of the Vestas V100 turbine that threw the blade were not unique to that turbine.

C. Method used to calculate background noise

{¶ 66} The certificate as approved provides for a nighttime-noise-level *design goal* of 44 dBA. (As the majority notes, “dBA is a scale that attempts to measure the loudness of sound waves the human ear perceives as audible sound.” Majority Opinion at ¶ 35). However, according to Raymond Strom, a board staff member, Champaign wind is not *required* to keep nighttime noise at or below that

level. Despite the lack of a mandatory requirement, all the parties agreed that the World Health Organization (“WHO”) has “determined that a nighttime sound level of 40 dBA is the threshold at which sound goes from being relatively unnoticed to intrusive and annoying.” Acoustical engineers for Champaign Wind and for appellant Union Neighbors United (“UNU”) agreed that the maximum noise level that a nonparticipating land owner should experience is the preexisting background noise level plus five dBA.

{¶ 67} There are multiple methods that can be used to calculate background noise, two of which are at issue in this case: the Leq method and the L90 method. The Leq method is the de facto state standard in Ohio because without any expert challenge to the method, it was used to evaluate the five previous wind-farm certificates approved by the board. However, all of the acoustical engineers who testified in this case agreed that the Leq standard of measure is unsuitable for calculating background noise for wind-turbine farms located in rural areas.

{¶ 68} Champaign Wind’s acoustical engineer, David Hessler, testified that this was the first time in his 21 years of professional experience that he had used the Leq method to calculate background noise in a rural area. In his expert opinion, the Leq method is unsuitable for calculating background noise for wind-turbine farms in a rural area because it “is extremely sensitive to contaminating noise events.” Richard James, the acoustical expert hired by UNU, agreed, stating that the L90 method is the generally accepted metric to measure background noise around the United States and the world.

{¶ 69} Using the Leq method, Hessler measured the nighttime background noise at the site of the proposed wind farm as 39 dBA. Therefore, using the Leq method, the noise design goal for this facility would be 39 dBA plus 5 dBA, for a total intended nighttime noise level of 44 dBA.

{¶ 70} However, using the “appropriate” engineering method of L90, Hessler measured the nighttime background noise as 30 dBA. Therefore, using the

L90 method, the noise design goal for this facility would be 30 dBA plus 5 dBA, for a total intended nighttime noise level of 35 dBA.

{¶ 71} Strom, the board’s staff member who supervised the noise portion of the board’s report, admitted that he is not an acoustical engineer—he is a botanist. He has never received any specialized training in acoustics and has never conducted a noise model. He testified that 16 of the 52 turbines that the board’s certificate allows Champaign Wind to construct are predicted to exceed the 44 dBA maximum. While the turbines can be operated in a low-noise-level mode, that is not a requirement of the certificate.

{¶ 72} Instead, the certificate requires Champaign Wind to implement a complaint-resolution process for residents affected by the wind farm. However, as Strom testified, the changing conditions of the atmosphere, like wind shear, atmospheric discontinuity, and temperature inversions, can lead to variations in the amount of noise people living near the turbines hear at any given time. It is therefore possible that the environmental conditions that exist at the time a complaint is generated will be different from the environmental conditions at the time of any subsequent testing.

{¶ 73} Contrary to the expert opinions of the acoustical engineers, the board continued to use the background-noise measurement based on the Leq standard, concluding that “UNU fails to provide any rationale for us to depart from past board precedent.”

II. Analysis

A. Standard of review

{¶ 74} I agree with the majority that appellants must overcome a high hurdle to demonstrate that the board acted unreasonably or unlawfully. “The appellant bears the burden of demonstrating that the commission’s decision is against the manifest weight of the evidence or is clearly unsupported by the record.”

In re Application of Ohio Power Co., 140 Ohio St.3d 509, 2014-Ohio-4271, 20 N.E.3d 699, ¶ 14. While this court has been reluctant to overturn the decisions of the Public Utilities Commission (the “commission”) or the board based on this standard, the standard the appellants must meet is not impossible to overcome.

{¶ 75} We have held that the commission acts unlawfully when its findings of fact are not supported by the record. See *Ideal Transp. Co. v. Pub. Util. Comm.*, 42 Ohio St.2d 195, 196, 199, 326 N.E.2d 861 (1975). Moreover, “ ‘[a] legion of cases establish that the commission abuses its discretion if it renders an opinion on an issue without record support.’ ” (Brackets sic.) *Indus. Energy Users-Ohio v. Pub. Util. Comm.*, 117 Ohio St.3d 486, 2008-Ohio-990, 885 N.E.2d 195, ¶ 30, quoting *Tongren v. Pub. Util. Comm.*, 85 Ohio St.3d 87, 90, 706 N.E.2d 1255 (1999), quoting *Cleveland Elec. Illum. Co. v. Pub. Util. Comm.*, 76 Ohio St.3d 163, 166, 666 N.E.2d 1372 (1996). We apply these same standards to decisions by the board. *In re Application of Buckeye Wind, L.L.C.*, 131 Ohio St.3d 449, 2012-Ohio-878, 966 N.E.2d 869, ¶ 26.

B. *Chapter 4906 of the Revised Code provides the mandatory criteria for issuance of a certificate*

{¶ 76} The protection of property rights is of fundamental importance to our western tradition of law. See 6 *The Writings of James Madison* 101-103 (Hunt Ed.1906). Government is instituted to serve that end. *Id.* at 102. “The right of private property being, therefore, an original right, * * * [it is] one of the primary and most sacred objects of government to secure and protect * * *.” *Bank of Toledo v. Toledo*, 1 Ohio St. 622, 632 (1853).

{¶ 77} The General Assembly enacted the statutory scheme in Chapter 4906 of the Revised Code to balance the rights of property owners interested in engaging in the production of alternative wind energy against the rights of nonparticipating property owners to be free from the adverse environmental impacts of the participating property owners’ activities. See R.C. 4906.10. To that end, the

General Assembly created eight criteria in R.C. 4906.10(A)(1) through (8) and mandated that certificates “shall not” be granted unless all of them are met. Two of the eight criteria direct the board to determine the “nature of the probable environmental impact” and to ensure “that the facility represents the minimum *adverse environmental impact* * * *.” (Emphasis added.) R.C. 4906.10(A)(2) and (3).

{¶ 78} The General Assembly did not define the term “environmental” for purposes of these requirements. See R.C. 4906.01 (setting forth definitions applicable for purposes of Chapter 4906 of the Revised Code). Because the term “environmental” has not acquired a technical or particular meaning by legislative definition or otherwise, the word should be given its usual and ordinary meaning. R.C. 1.42; *Weaver v. Edwin Shaw Hosp.*, 104 Ohio St.3d 390, 2004-Ohio-6549, 819 N.E.2d 1079, ¶ 12. Environmental is the adjective form of the noun environment, which has been defined as “[t]he physical conditions of a particular place where a living person or thing exists.” *Black’s Law Dictionary* 651 (10th Ed.2014).

{¶ 79} The General Assembly gave the board rule-making authority to govern wind farms and statutorily established minimum setbacks to be incorporated into the rule, mandating that “[t]he setback shall apply in all cases except those * * * in which, in a particular case, the board determines that a setback *greater* than the minimum is necessary.” (Emphasis added.) R.C. 4906.20(B)(2)(a) and (c).

{¶ 80} While Champaign Wind’s application for a certificate was pending, the General Assembly enacted new statutory setbacks for wind farms that apply prospectively for all new or amended certificates. R.C. 4906.201, enacted in 2013 Am.Sub.H.B. No. 59 (effective Sept. 29, 2013) and amended in 2014 Am.Sub.H.B. No. 483 (effective Sept. 15, 2014). The new statutory setbacks are 1,125 feet from the nearest adjacent property line. R.C. 4906.20(B)(2)(a).

C. Proposed setbacks for blade throws are unlawful and unreasonable

{¶ 81} In 2012, we approved Buckeye Wind’s application for a wind farm with a setback of 541 feet from the property line. *See In re Application of Buckeye Wind*, 131 Ohio St.3d 449, 2012-Ohio-878, 966 N.E.2d 869, at ¶ 5, 37. In part, we relied on the record in that case, which stated that the farthest a shorn blade could be thrown was 500 feet, even though that claim was based on data from a turbine that was smaller than the one approved in the certificate. *Id.* at ¶ 50. (Lundberg Stratton, J., dissenting). At the time of certification, no calculation existed for how far a blade might be thrown from the turbines under consideration. *Id.* And the board staff lacked “sufficient competence in physics even to attempt to calculate the distance a blade could fly.” *Id.*

{¶ 82} Today, we know that a wind turbine like the Vestas V100 can throw a shorn blade up to 764 feet and that the blade can have the same force on impact as a 40-pound block of concrete falling from an eight-story building. The fact that Champaign Wind removed the Vestas V100 model turbine from consideration in this matter is of no consequence.

{¶ 83} Undisputedly, all of the turbines under consideration are similar. All of the turbines were manufactured to conform to international standards designed to prevent blade failures, and all of them employ the same safety features of independent braking, ice-detection software, and alarms that trigger an automatic shutdown. Therefore, all of the turbines should have the same risk of malfunctioning due to blade throw, lightning, icing, and user error.

{¶ 84} Human error is the leading cause of wind-turbine malfunction, and this danger will always be present. Moreover, like the Ohio facility at which the shorn blade travelled 764 feet after an operator located in Oregon remotely restarted the turbine after an automatic shutdown, the facility approved in this certificate will be capable of being operated from an undisclosed remote location.

{¶ 85} The General Assembly mandated the establishment of *minimum* setbacks that must be applied except in “particular case[s]” where “a setback greater than the minimum is necessary.” R.C. 4906.20(B)(c). The board found staff testimony that a shorn blade was thrown 764 feet from a Vestas V100 turbine to be credible. Even if blade throws are rare, the General Assembly has mandated that before the board exercises its authority to grant a certificate, it must make a determination of the “probable environmental impact” and must ensure that the facility will create “the minimum adverse environmental impact.” R.C. 4906.10(A)(2) and (3).

{¶ 86} It is undisputed that the remaining six turbine models approved in the certificate are similar to the Vestas V100 turbine in size, safety features, and capability for remote operation. Therefore, the probable environmental impact of a shorn blade thrown from one of the approved models includes debris flying up to 764 feet from the turbine. In this particular case, the “minimum adverse environmental impact” will likely be felt up to 764 feet from the property line. The supposed rarity of blade throws alone is not sufficient to overcome the statutory mandate.

{¶ 87} The General Assembly created a statutory minimum setback but acknowledged that in particular cases, “greater than the minimum” may be necessary. R.C. 4906.20(B)(2)(c). In this case, the board’s continued use of the minimum property-line setback of 541 feet fails to minimize the adverse effect that a blade throw can have on the property of a nonparticipating owner. Therefore, the setbacks approved in the certificate are unreasonable because they are against the manifest weight of the evidence. Adequate setbacks based on the actual evidence regarding blade throw are the only way to ensure that the facility complies with the law and has a “minimum adverse environmental impact.”

D. Method used to measure background noise is unlawful and unreasonable

{¶ 88} In the five prior instances in which the board granted wind-farm certificates based on the use of the Leq standard to measure background noise in a rural area, the use of that method was not challenged and no expert acoustical-engineering testimony on the correct method was presented.

i. *The acoustics experts agree: the proper method to measure background noise is L90*

{¶ 89} The board's reliance on the Leq method to determine preexisting background noise levels at the wind-farm site is unsupported by the record. UNU's acoustical engineer, James, testified that Leq is not the appropriate method with which to calculate background noise in a rural area because it provides an inflated background-noise measurement. Champaign Wind's acoustical expert, Hessler, agreed. In Hessler's 21 years of professional experience, this case was the first time that he had used the Leq method to calculate background noise in a rural area. In his expert opinion, the Leq standard is "unsuitable for wind turbine background surveys in rural areas" because it is "extremely sensitive to contaminating noise events." He only applied the Leq method here because it was the method that had previously been used in Ohio and he believed it to be the "de facto State standard."

{¶ 90} The majority correctly states that the method used to calculate background noise is not mandated by either statute or regulation and that the board has broad discretion absent a statutory or regulatory mandate. *See Payphone Assn. v. Pub. Util. Comm.*, 109 Ohio St.3d 453, 2006-Ohio-2988, 849 N.E.2d 4, ¶ 25. However, the board's continued use of an unsupported acoustical method to calculate background noise in a rural area in light of expert testimony that that method is unsuitable is unreasonable.

{¶ 91} This court has given deference to the board's resolution of technical issues associated with approving certificates. *See Office of Consumers' Counsel v.*

Pub. Util. Comm., 58 Ohio St.2d 108, 110, 388 N.E.2d 1370 (1979). However, a prerequisite to this court's reliance on an agency's expert conclusions is that the agency has actual expertise in the area. *See id.* at 110 (this court will defer to an agency when based on its expertise, the agency is more competent to deal with a highly specialized area).

{¶ 92} In this case, however, Strom, the board's staff member who was responsible for supervising and writing the noise section of the board report, is not an acoustical engineer, has no specialized formal training in acoustics, and has never conducted a noise model. His master's degree is in botany.

{¶ 93} The board's conclusion that the Leq method is reliable based on Strom's testimony is against the manifest weight of the evidence, and the majority's deference to that conclusion is misplaced. All of the acoustical experts, including Hessler, testified that the Leq method was *unsuitable* to calculate background noise in a rural area. The only reason the Leq method was used in this certification process is that it was the standard that the board had previously used. The board, in issuing this certificate, has chosen to rely on the Leq metric notwithstanding the lack of agency expertise in acoustical engineering. Therefore, no deference should be afforded to the board's conclusion.

{¶ 94} The board characterized the argument over using the Leq method or the L90 method as an argument over using a good method or a better method. This characterization ignores the fact that both of the expert acoustical engineers in this case testified that the Leq method is *unsuitable* for measuring background noise in a rural area and that the L90 method is the correct standard of measure. When the record fails to support the board's conclusions, the decision of the board is unreasonable and the appellant's burden has been met. *See Monongahela Power Co. v. Pub. Util. Comm.*, 104 Ohio St.3d 571, 2004-Ohio-6896, 820 N.E.2d 921, ¶ 29.

ii. *Continued use of the Leq method violates R.C. 4906.10(A)(3)*

{¶ 95} The parties' experts agreed that the maximum amount by which the wind farm should increase the preexisting background noise level is 5 dBA. Therefore, the disagreement over which method should be used to calculate the background noise level in a rural area is fundamental to determining the "probable environmental impact" and to ensuring that a "minimum adverse environmental impact" occurs. See R.C. 4906.10(A)(2) and (3).

{¶ 96} Using the acoustically sound L90 method, the experts agree that the background noise level would be 30 dBA. Therefore, when the additional 5 dBA maximum increase is added, the true maximum noise level for the facility should be 35 dBA. Use of the unsuitable Leq method permits the facility to generate an additional 9 dBA, which raises the maximum noise-level threshold for the facility to 44 dBA at nonparticipating residences. But even this is not the maximum level of noise that the facility will emit.

{¶ 97} Strom, the board's staff member, testified that the board knows that 16 of the 52 turbines approved in the certificate are predicted to generate a noise level that will exceed 44 dBA and that when those turbines operate for an undetermined "short period" at night exceeding the 44 dBA level, it will not violate the terms of the certificate. While the noise level can be reduced by operating the turbines in quiet mode, that is not a requirement of the certificate.

{¶ 98} The board recognized that "as both UNU and Champaign acknowledge, WHO determined that a nighttime sound level of 40 dBA is the threshold at which sound goes from being relatively unnoticed to intrusive and annoying." Therefore, the negative environmental impact of continued use of the Leq method is not probable—it is certain. See R.C. 4906.10(A)(2).

{¶ 99} One of the criteria that the General Assembly requires for granting a wind farm certificate is that the facility represents a "minimum adverse environmental impact." R.C. 4906.10(A)(3). Granting a certificate, as the board

did here, on the basis of an unsuitable method to calculate background noise in a rural area that permits the facility to emit a noise level that is known to exceed health limits, where the noise becomes “intrusive and annoying,” is not only unreasonable, it is unconscionable and unlawful.

{¶ 100} The manifest weight of the evidence demonstrates that the L90 metric is the correct method to calculate background noise in a rural area. The board’s decision to continue to use the Leq method to measure noise in a rural area is unlawful because it fails to comply with the General Assembly’s mandate that the facility have a “minimum adverse environmental impact” on nonparticipating residents. *See* R.C. 4906.10(A)(3).

iii. *A complaint process cannot cure the board’s failure to comply with R.C. 4906.10(A)(3)*

{¶ 101} Without an explanation as to why it was permitting the facility to operate at a noise level that is known to be adverse to human health, the board decided to require a complaint process. While it is within the sound discretion of the board to modify the terms of a certificate, in accordance with R.C. 4906.10(A), the addition of a new requirement cannot cure the issuance of a certificate that violates the “minimum adverse environmental impact” requirement contained in R.C. 4906.10(A)(3). The statutory scheme as enacted by the General Assembly does not grant the board authority to mitigate an adverse environmental impact, only to prevent it.

{¶ 102} The General Assembly requires the board to evaluate the probable environmental impact and to limit the negative effects of the facility prior to awarding a certificate. The board cannot remedy a known adverse environmental impact through a complaint process. The limitations on the complaint process employed by the board and the difficulty in administering that process demonstrate why the General Assembly requires that the facility represent a “minimum adverse environmental impact” prior to the certificate being issued.

{¶ 103} As Strom testified, he did not know whether the filing of a complaint means that further testing will occur. Even if testing were initiated after the filing of every complaint, environmental conditions that can affect the amount of noise residents hear may not be the same at the time that a test is administered, meaning that the test might appear to disprove what was in fact a legitimate noise complaint, thereby leaving nonparticipating property owners no apparent recourse to address unhealthy noise levels that unreasonably infringe on their property rights.

III. Conclusion

{¶ 104} Respectfully, I dissent. In affirming the decision of the Power Siting Board, the majority concludes that the appellants failed to demonstrate that the “board's decision was unreasonable or unlawful.” Majority Opinion at ¶ 57. In my view, the board’s decision to grant the certificate was unreasonable and unlawful because the blade-throw setbacks and the default method used to calculate background noise in a rural area are unsupported by the record and are against the manifest weight of the evidence. Therefore, I would reverse the decision of the board and remand for further proceedings consistent with this opinion.

PFEIFER, J., concurs in the foregoing opinion.

Kevin S. Talebi, Champaign County Prosecuting Attorney, and Jane A. Napier, Assistant Prosecuting Attorney, for appellants Champaign County and Goshen, Union, and Urbana Townships.

Van Kley & Walker, L.L.C., Jack A. Van Kley, and Christopher A. Walker, for appellants Union Neighbors United, Robert McConnell, Diane McConnell, and Julia F. Johnson.

Michael DeWine, Attorney General, William L. Wright, Section Chief, and Werner L. Margard, Assistant Attorney General, Public Utilities Section, and Sarah Bloom Anderson and Summer J. Koladin-Plantz, Assistant Attorneys General, Environmental Enforcement Section, for appellee Ohio Power Siting Board.

SUPREME COURT OF OHIO

Vorys, Sater, Seymour & Pease, L.L.P., M. Howard Petricoff, Michael J. Settineri, and William A. Sieck, for intervening appellee, Champaign Wind, L.L.C.

Chad A. Endsley and Leah F. Curtis, urging affirmance for amici curiae Ohio Farm Bureau Federation and Champaign County Farm Bureau.

Howard Learner and Trent A. Dougherty, urging affirmance for amici curiae Environmental Law and Policy Center and Ohio Environmental Council.
