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Public Service Commission of Wisconsin
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Application of Highland Wind Farm, LLC, for a Certificate of Public Convenience and Necessity to Construct a 102.5 Megawatt Wind Electric Generation Facility and Associated Electric Facilities, to be Located in the Towns of Forest and Cylon, St. Croix County, Wisconsin

2535-CE-100

FINAL DECISION ON REMAND

This is the Final Decision on Remand on the application of Highland Wind Farm LLC (Highland) for a Certificate of Public Convenience and Necessity (CPCN) to construct a 102.5 megawatt wind electric generation facility and associated electric facilities, to be located in the towns of Forest and Cylon, St. Croix County, Wisconsin. As set forth herein, this Final Decision on Remand amends the Final Decision on Reopening, dated October 25, 2013 ([PSC REF#: 192339](#)), as further amended by the Amended Final Decision on Reopening, dated October 21, 2014 ([PSC REF#: 222689](#)), to comply with the Decision and Order in *Town of Forest v. Pub. Serv. Comm'n of Wis.*, No. 14-CV-18 (Wis. Cir. Ct. St. Croix Cnty. Aug. 27, 2015) (Decision and Order). Except as specifically modified by this Final Decision on Remand, the terms and conditions of the Final Decision on Reopening remain in full force and effect and are unaffected by this Final Decision on Remand.

Introduction

This project has a lengthy procedural history. On December 19, 2011, pursuant to Wis. Stat. § 196.491 and Wis. Admin. Code chs. PSC 4 and 111, Highland filed an application with the Commission for a CPCN to construct the project. After a contested case hearing, by Final Decision dated March 15, 2013, the Commission denied the application. ([PSC](#)

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[REF#: 182254.](#)) The Commission concluded that the sound modeling information submitted in the docket indicated that there were multiple nonparticipating residences where Highland had failed to demonstrate compliance with the Wis. Admin. Code § PSC 128.14(3) nighttime noise limit of 45 A-weighted decibels (dBA) using the most conservative modeling inputs. The Commission noted in the Final Decision that Highland could either request reopening of the docket under Wis. Stat. § 196.39, petition for rehearing under Wis. Stat. § 227.49, or file a new application under Wis. Stat. § 196.491 if and when it could demonstrate through more conservative sound modeling that the project would not result in any nonparticipating residences where the noise would exceed the audible noise limits in Wis. Admin. Code § PSC 128.14(3).

On April 4, 2013, Highland filed a Petition to Reopen, or in the Alternative, for Rehearing. ([PSC REF#: 183159.](#)) On May 14, 2013, the Commission granted Highland's Petition and reopened the proceeding under Wis. Stat. § 196.39(1) for the limited purpose of determining if the project could comply with the noise standards in Wis. Admin. Code ch. PSC 128. ([PSC REF#: 184812.](#)) In the reopened proceeding, Highland submitted sound modeling and a proposed curtailment plan, specific to the two turbine models under consideration, under which turbine operation would be curtailed under certain conditions to ensure sound levels at nonparticipating residences would not exceed the sound limits in Wis. Admin. Code § PSC 128.14(3). After further contested case hearings, the Commission issued a Final Decision on Reopening granting a CPCN because the Commission found that the sound modeling under the proposed curtailment plan demonstrated that the project would meet applicable noise limits, including the Wis. Admin. Code § PSC 128.14(3) nighttime audible noise limit of 45 dBA. ([PSC REF#: 192339.](#)) To ensure the project, as built, functioned as

predicted by the sound modeling, the Commission imposed rigorous post-construction noise monitoring conditions.

On January 10, 2014, the Town of Forest (Town), which was an intervenor in both the initial and reopened proceedings, requested judicial review of the Commission's Final Decision on Reopening.¹ The Town challenged the Commission's determination that the project, using the curtailment plan, would be in compliance with the noise limits in Wis. Admin. Code § PSC 128.14(3). The request for judicial review also challenged, among other things, two conditions of the Final Decision on Reopening in which the Commission set a 95 percent pre-established compliance standard, and the Commission accepted an agreement by Highland to provide a lower nighttime noise limit of 40 dBA to six nonparticipating residences described as "sensitive."

On August 27, 2015, the circuit court judge for St. Croix County, the Honorable Edward F. Vlack, issued a Decision and Order affirming in part and remanding in part the Commission's Final Decision on Reopening. The Decision and Order affirmed the Commission's determination that the project using the curtailment plan would comply with the noise limits in Wis. Admin. Code § PSC 128.14(3) and that the project would not unreasonably interfere with the orderly land use and development plans for the area, but remanded two specific issues to the Commission for further consideration. The two issues remanded by the Decision and Order were: (1) the adoption of the pre-established 95 percent compliance standard; and (2) the acceptance of Highland's agreement to limit to 40 dBA the nighttime noise from the

¹ Forest Voice also requested to intervene in the judicial review proceeding. However, Forest Voice's Motion to Intervene in the judicial review proceeding was denied as untimely by the St. Croix County Circuit Court in an order dated June 3, 2014.

project at the six residences identified as occupied by potentially “sensitive” individuals. No party petitioned for review of the circuit court’s Decision and Order.

On March 15, 2016, the Commission issued an Order to Reopen, Notice and Request for Comments reopening the docket for the limited purpose of addressing the two issues remanded by the circuit court’s Decision and Order. ([PSC REF#: 283217.](#)) Consistent with the Decision and Order and pursuant to its authority under Wis. Stat. § 196.39,² the Commission notified the parties and other interested persons of the limited reopening, and provided an opportunity to be heard on the following:

1. The Commission’s intention to modify its Final Decision on Reopening to remove the pre-established 95 percent compliance standard and address any complaints concerning alleged noncompliance with the noise standards, based on the specific factual situation, at the time any noncompliance is alleged.

2. To allow the parties to state why the six identified potentially sensitive residences, and other potentially sensitive residences already identified in Ex.-Forest-Junker-20, should be considered for lower noise requirements than is provided for in Wis. Admin. Code § PSC 128.14(3), so that the Commission could decide whether to include lower noise requirements for either these six or any additional residences.

² **Wisconsin Stat. § 196.39 Change, amendment and rescission of orders; reopening cases.**

(1) The commission at any time, upon notice to the public utility and after opportunity to be heard, may rescind, alter or amend any order fixing rates, tolls, charges or schedules, or any other order made by the commission, and may reopen any case following the issuance of an order in the case, for any reason.

(2) An interested party may request the reopening of a case under s. 227.49.

(3) Any order rescinding, altering, amending or reopening a prior order shall have the same effect as an original order.

(4) Within 30 days after service of an order, the commission may correct an error or omission in the order related to transcription, typing or calculation without hearing if the correction does not alter the intended effect of the order.

(5) This section does not apply to an order issued under s. 196.371.

3. To take official notice under Wis. Stat. § 227.45 of the following governmental reports of peer-reviewed studies, relating to whether any identified health concerns are affected by wind electric generation facilities, and provide the parties an opportunity, as required by Wis. Stat. § 227.45, to rebut or present countervailing evidence:

- a. The Wisconsin Wind Siting Council Wind Turbine Siting-Health Review and Wind Siting Policy Update ([PSC REF#: 285629](#)); and
- b. Review of Studies and Literature Relating to Wind Turbines and Human Health ([PSC REF#: 285630](#)).

The Commission provided a 30-day comment period for the parties and public and accepted comments through its public web site and via U.S. mail. The Commission received comments from the following parties: Highland ([PSC REF#: 284905](#)); the Town of Forest ([PSC REF#: 285292](#) Confidential, [PSC REF#: 285293](#) Redacted);³ Forest Voice ([PSC REF#: 284904](#)); Clean Wisconsin (Clean WI) ([PSC REF#: 285642](#));⁴ and RENEW Wisconsin (RENEW) ([PSC REF#: 284891](#)). A comment was also received from Richard James ([PSC REF#: 284895](#)), who appeared as an expert for Forest Voice in the underlying proceeding. In excess of 130 comments were also received from members of the public from within and outside the project area, from areas near other wind developments in Wisconsin and elsewhere, and from other states and countries.

³ The Town's comments were timely received and were re-filed to correct filing errors and to protect personally identifying information.

⁴ Clean WI's comments were timely received and were re-filed to include, as exhibits, information cited in the comments as required by the filing guidelines. *See*, Ex.-CW-Cook-1 through Ex.-CW-Cook-10 ([PSC REF#: 285631](#), [PSC REF#: 285632](#), [PSC REF#: 285633](#), [PSC REF#: 285634](#), [PSC REF#: 285635](#), [PSC REF#: 285636](#), [PSC REF#: 285637](#), [PSC REF#: 285638](#), [PSC REF#: 285639](#), [PSC REF#: 285640](#)).

The Commission considered this matter at its open meeting of July 7, 2016. The parties appearing before the Commission in this limited reopener on remand are listed in Appendix A.

Findings of Fact

1. It is reasonable to accept into the record the evidence listed in Appendices B and C.
2. It is not reasonable to adopt any percentage-based compliance standard at this time.
3. It is reasonable to remove the pre-established 95 percent compliance standard and address any complaints concerning alleged noncompliance with the noise standards, based on the specific factual situation, at the time any noncompliance is alleged.
4. The additional evidence received supports the Commission's prior conclusion that a causal link between audible or inaudible noise at wind generating facilities and human health risks has not been established.
5. It is reasonable to require Highland to comply with the noise limits in Wis. Admin. Code § PSC 128.14(3) for all nonparticipating residences in the project area.
6. It is not reasonable to require Highland to comply with a noise limit lower than that specified in Wis. Admin. Code § PSC 128.14(3) to either the six previously identified residences or any other identified residences in the project area.

Conclusions of Law

1. The Commission has jurisdiction under Wis. Stat. §§ 196.02, 196.39, 196.395, and 196.491 to issue this Final Decision on Remand.
2. The Commission has provided a reasonable opportunity to be heard in compliance with Wis. Stat. § 196.39(1).
3. No hearing is required by the Decision and Order or Wis. Stat. §§ 196.39(1) or 227.42 to remove the pre-established 95 percent compliance standard.
4. No hearing is required by the Decision and Order or Wis. Stat. §§ 196.39(1) or 227.42 to require Highland to comply with the noise limits in Wis. Admin. Code § PSC 128.14(3) for all nonparticipating residences in the project area, nor require Highland to comply with a lower noise limit to individuals previously identified as potentially “sensitive.”

Opinion

The sole purpose of this reopened proceeding and this Final Decision on Remand is to address the two specific issues remanded by the circuit court, namely the circuit court’s decision that: (1) the Commission lacked substantial evidence to adopt a pre-established 95 percent compliance standard and did not provide proper notice or a hearing on the issue, and (2) the circuit court’s decision that the Commission lacked substantial evidence to accept Highland’s proposal to comply with a lower noise limit for six residences, and did not provide proper notice and hearing on the issue. Pursuant to Wis. Stat. § 196.39(1), the Commission reopened the record in this proceeding to address the remanded issues and take official notice under

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Wis. Stat. § 227.45⁵ of two statutorily required governmental reports of peer-reviewed studies: Wisconsin Wind Siting Council Wind Turbine Siting-Health Review and Wind Siting Policy Update (2014 Review) ([PSC REF#: 285629](#)) and Review of Studies and Literature Relating to Wind Turbines and Human Health (2015 Review) ([PSC REF#: 285630](#)). The Commission's Final Decision on Reopening was issued on October 25, 2013, prior to the issuance of either of these reports on the peer-reviewed literature related to wind turbine siting and human health.

The 2014 Review and 2015 Review

The 2014 Review, issued on October 31, 2014, was required under Wis. Stat. § 196.378(4g)(e), which directed the Wind Siting Council to “survey the peer-reviewed scientific research regarding the health impacts of wind energy systems and study state and national regulatory developments regarding the siting of wind energy systems.” The 2014 Review notes that “[a]s part of the Council’s work while developing its 2010 wind siting recommendations that led to the creation of the Commission’s administrative rules relating to wind energy systems, Wis. Admin. Code ch. PSC 128 (PSC 128), the Council provided an exhaustive and then up-to-date review of pertinent wind-health scientific literature. This report covers new

⁵ **Wisconsin Statute § 227.45 Evidence and official notice.** In contested cases:

(1) Except as provided in s. 901.05, an agency or hearing examiner shall not be bound by common law or statutory rules of evidence. The agency or hearing examiner shall admit all testimony having reasonable probative value, but shall exclude immaterial, irrelevant or unduly repetitious testimony or evidence that is inadmissible under s. 901.05. The agency or hearing examiner shall give effect to the rules of privilege recognized by law. Basic principles of relevancy, materiality and probative force shall govern the proof of all questions of fact. Objections to evidentiary offers and offers of proof of evidence not admitted may be made and shall be noted in the record.

(2) All evidence, including records and documents in the possession of the agency or hearing examiner of which the agency or hearing examiner desires to avail himself or herself, shall be duly offered and made a part of the record in the case. Every party shall be afforded adequate opportunity to rebut or offer countervailing evidence.

(3) An agency or hearing examiner may take official notice of any generally recognized fact or any established technical or scientific fact; but parties shall be notified either before or during the hearing or by full reference in preliminary reports or otherwise, of the facts so noticed, and they shall be afforded an opportunity to contest the validity of the official notice.

* * *

information that has been published in the scientific literature from 2011 to 2014. To prepare this report, Council members collected literature related to the effects of wind energy systems on human health. Commission staff also conducted a formal literature review. These efforts identified over 40 peer-reviewed publications on wind-health issues and three governmental reports.” (2014 Review at 2.)

The 2014 Review concludes: “[b]ased on the available literature, what the Council can reasonably conclude is that some individuals residing in close proximity to wind turbines perceive audible noise and find it annoying. A small subset of these individuals report that this noise negatively affects their sleep and may result in other negative health effects. However, based on objective surveys near wind energy projects, it appears that this group is in the minority and that most individuals do not experience annoyance, stress, or perceived adverse health effects due to the operation of wind turbines. This conclusion is especially true if wind turbine siting is used to limit high noise exposure.” (2014 Review at 3-4.)

A similar requirement to Wis. Stat. § 196.395(4g)(e) was included in 2015 Wisconsin Act 55, which required the Commission to “conduct a review of studies conducted to ascertain the health effects of industrial wind turbines on persons residing near the turbine installations.” The 2015 Review was issued in December 2015 and concludes that “the research literature on this subject continues to show trends similar to those identified in the 2014 WSC report.” (2015 Review at 1.) The 2015 Review concludes that “[t]he studies have found an association between exposure to wind turbine noise and annoyance for some residents near wind energy systems. Some studies show this as a causal relationship between wind turbines and annoyance. There is more limited and conflicting evidence demonstrating an association or a causal relationship

between wind turbines and sleep disturbance. There is a lack of evidence to support other hypotheses regarding human health effects caused by wind energy systems. Overall, the research in this area is limited and insufficient to determine causal relationships between variables.” (2015 Review at 9.)

Evidentiary Issues

Pursuant to the opportunity to be heard provided by the Commission under Wis. Stat. § 196.39(1) and the opportunity to rebut the records of which the Commission has officially taken notice, as required by Wis. Stat. § 227.45, the parties and public submitted studies, reports, articles, other reference materials and comments in this reopened proceeding. Wisconsin Stat. § 227.45(2) requires that “[a]ll evidence, including records and documents in the possession of the agency or hearing examiner of which the agency or hearing examiner desires to avail himself or herself, shall be duly offered and made a part of the record in the case. . . .” The standard for determining what evidence to accept into the record is set forth in Wis. Stat. § 227.45(1) which provides:

Except as provided in s. 901.05, an agency or hearing examiner shall not be bound by common law or statutory rules of evidence. The agency or hearing examiner shall admit all testimony having reasonable probative value, but shall exclude immaterial, irrelevant or unduly repetitious testimony or evidence that is inadmissible under s. 901.05. The agency or hearing examiner shall give effect to the rules of privilege recognized by law. Basic principles of relevancy, materiality and probative force shall govern the proof of all questions of fact. Objections to evidentiary offers and offers of proof of evidence not admitted may be made and shall be noted in the record.

Thus, evidence having “reasonable probative value” shall be admitted into the record. Wis. Stat. § 227.45(1). However, “the relaxed evidentiary standard is not meant to allow the proceedings to degenerate to the point where an administrative agency relies only on unreliable

evidence.” *Gehin v. Wis. Grp. Ins. Bd.*, 2005 WI 16, ¶ 51, 278 Wis. 2d 111, 134, 692 N.W.2d 572, 583. “Properly admitted evidence may not necessarily constitute substantial evidence.” (*Id.*, ¶ 52.) Accordingly, under Wis. Stat. § 227.45(1), the Commission shall exclude “immaterial, irrelevant or unduly repetitious testimony or evidence.” The evidence offered during this reopened proceeding falls into two general categories: (1) studies, reports, articles and other reference materials; and (2) public and party comments. The Commission will address each category of evidence separately.

Studies, Reports, Articles and Other Reference Materials Offered

The Commission took official notice under Wis. Stat. § 227.45 of two new reports that were unavailable when it issued its Final Decision on Reopening, and afforded the parties an opportunity to rebut the reports or provide countervailing evidence through a 30-day comment period. ([PSC REF#: 283217](#).)

Forest Voice objected to the taking of official notice of the 2014 Review and 2015 Review in the absence of an evidentiary hearing. ([PSC REF#: 284904](#) at 10-11.) According to Forest Voice, taking official notice without a hearing violates Wis. Stat. § 227.42. However, this argument ignores the plain language of Wis. Stat. § 227.45(2). Wisconsin Stat. § 227.45(2) specifically requires the Commission to offer every party an “adequate opportunity to rebut or offer countervailing evidence.” Accepting the evidence presented by the parties into the record is presumed if the evidence meets the standard in Wis. Stat. § 227.45(1). There is no hearing necessary under the plain language of the statute prior to the acceptance of the documents of which the Commission is taking official notice, or any rebuttal or countervailing evidence.

While Forest Voice cited Wis. Stat. § 227.42, it failed to explain how that statute applies in this situation and ignored subsection (3) of this provision which, as will be discussed in greater depth later in this Final Decision on Remand, limits the application of this statute where the agency has discretion under another provision as to whether to hold a hearing. Under Wis. Stat. § 196.02(7) in any matter within the Commission’s jurisdiction “the commission may initiate, investigate, and order a hearing *at its discretion* upon such notice as it deems proper.” (Emphasis added.) Moreover, Wis. Stat. § 227.45(3), by requiring only “adequate opportunity to rebut or offer countervailing evidence” and not mandating a hearing, gives the Commission discretion therefore making Wis. Stat. § 227.42 inapplicable. Even assuming *arguendo*, that this section did apply, it only applies where the statutory criteria are met, and Forest Voice failed to even mention, let alone, demonstrate how any of those criteria are satisfied. Based upon the plain language of Wis. Stat. § 227.45, the Commission concludes that no hearing is required prior to accepting into the record officially noticed materials into the record. Through the comment period, all parties and interested persons were provided due notice and a full and fair opportunity to present countervailing evidence. Accordingly, the Commission accepts the 2014 Review and 2015 Review into the record, as well as the vast majority of the studies presented by the parties and public, as discussed further below.

Forest Voice and Highland did not offer studies as part of their comments. Clean WI provided ten studies from peer-reviewed journals and the Town provided two studies published in peer-reviewed journals, and one from a magazine on acoustics. RENEW provided an article ([PSC REF#: 284891](#)) that summarized some points from one study reviewed by the 2015 Review (McCunney *et al.* 2014).

Six of the studies⁶ provided by Clean WI are from Health Canada's Community Noise and Health Study, recently published in the Journal of the Acoustical Society of America, and provide further information to support preliminary results first released in 2014. These papers describe study methodology, modeling results, and conclusions on wind turbine noise and various self-reported or observed responses. They generally support the finding that no evidence was found to support a link between exposure to wind turbine noise and self-reported illnesses, chronic conditions, stress, or sleep quality, while an association was found between increasing levels of wind turbine noise and the number of individuals reporting to be very or extremely annoyed. The two papers by Keith *et al.* describe how the study found that A-weighted and C-weighted sound results were strongly correlated and are of relevance to discussions of whether sound measurements in dBA are able to accurately indicate how much low frequency or infrasound to which residents would be exposed.

The other four papers provided by Clean WI were also published in 2016 and range from a study in Japan⁷ that examined self-reported sleep problems and wind turbine noise, a survey in Denmark⁸ that examined the effect of other environmental exposures on reported symptoms, and two others that are not as directly relevant; one looking at the impact of the nocebo effect and is

⁶ Michaud *et al.* (1) 2016. Exposure to wind turbine noise: Perceptual responses and reported health effects. ([PSC REF#: 285640.](#)) Michaud *et al.* (2) 2016. Self-reported and measured stress related responses associated with exposure to wind turbine noise. ([PSC REF#: 285631.](#)) Michaud *et al.* (3) 2016. Personal and situational variables associated with wind turbine noise annoyance. ([PSC REF#: 285633.](#)) Voicescu *et al.* 2016. Estimating annoyance to calculated wind turbine shadow flicker is improved when variables associated with wind turbine noise exposure are considered. ([PSC REF#: 285635.](#)) Keith *et al.* (1) 2016. Wind turbine sound pressure level calculations at dwellings. ([PSC REF#: 285637.](#)) Keith *et al.* (2) 2016 Wind turbine sound power measurements. ([PSC REF#: 285639.](#))

⁷ Kageyama *et al.* 2016. Exposure-response relationship of wind turbine noise with self-reported symptoms of sleep and health problems: A nationwide socioacoustic survey in Japan. ([PSC REF#: 285636.](#))

⁸ Blanes-Vidal and Schwartz 2016. Wind turbines and idiopathic symptoms: The confounding effect of concurrent environmental exposures. ([PSC REF#: 285632.](#))

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not specific to wind turbines⁹ while the other is more involved with studying sound measurement methodology.¹⁰

The Town provided three documents that discuss theoretical ways wind turbines could affect human health. One is an older journal article¹¹ that discusses the risk of photosensitive epilepsy seizures from shadow flicker, generally considered to be more of a risk with small turbines, and not of the size approved for this project. Another is a peer-reviewed journal article¹² published in the Journal of the Acoustical Society of America that presents a theory to examine how reported physiological effects could be influenced by infrasound from wind farms. It uses data gathered at the Shirley Wind Farm, located in Brown County, Wisconsin. The third document¹³ provided is from Acoustics Today, a magazine published by the Acoustical Society of America. That article also presents theories as to how inaudible sound might affect human health. These last two articles do not show direct evidence of health effects from wind turbine noise, but show hypothetical ways of how inaudible sound could still possibly affect human health for those with conditions that affect the inner ear.¹⁴

⁹ Porsius *et al.* 2015. Nocebo responses to high-voltage power lines: Evidence from a prospective field study. ([PSC REF#: 285634.](#))

¹⁰ Katinas *et al.* 2016. Analysis of the wind turbine noise emissions and impact on the environment. ([PSC REF#: 285638.](#))

¹¹ Harding *et al.* 2008. Wind turbines, flicker, and photosensitive epilepsy: Characterizing the flashing that may precipitate seizures and optimizing guidelines to prevent them. ([PSC REF#: 285293.](#))

¹² Schomer *et al.* 2015. A theory to explain some physiological effects of the infrasonic emissions at some wind farm sites. ([PSC REF#: 285293.](#))

¹³ Salt and Lichtenhan. 2014. How does wind turbine noise affect people? ([PSC REF#: 285293.](#))

¹⁴ The Town also advocated that the Commission accept the Wind Siting Minority Report 2014. The Minority Report is included in the 2014 Review, at Appendix F. ([PSC REF#: 285629.](#)) As the Commission has taken official notice of the 2014 Review, the Minority Report is already part of the record.

Several members of the public also provided references to articles, or articles themselves, on the topic of wind turbines and human health.¹⁵ These vary in their source, age, and relevance to the issues that are part of this reopening. Many of the journal articles provided are not directly related to the issue of wind turbines and human health, but reach to further discussions such as: general environmental noise impacts; research that is not directly comparable to human health impacts at nonparticipating residences; or research on mechanisms where infrasound could possibly impact human health, without showing those impacts at the level of infrasound produced by wind farms.

The Commission must decide whether to accept some or all of this evidence into the record. While Highland supported the Commission taking official notice of the 2014 Review and 2015 Review, it appeared to object to the acceptance of any other reports that are not peer-reviewed studies or studies not otherwise subjected to a similarly stringent standard.¹⁶ Highland noted that in directing the Commission to further study whether the scientific literature finds any relationship between wind turbine noise and human health effects, the Legislature has limited the review to peer-reviewed literature. ([PSC REF#: 284905](#) at 5-6.) Highland thus urged the Commission to “not take official notice of rebuttal or countervailing evidentiary materials that have not been subjected to a similarly stringent standard.” (*Id.*) Doing so, Highland argued, “would run contrary to the policy underpinning Wis. Stat. § 227.45(3) and would undermine the

¹⁵ To the extent Commission staff could locate the article from the reference provided, it was included in the summary in Appendix B of this Final Decision on Remand. If the Commission accepts some or all of the references offered by members of the public, copies of the articles (subject to any copyright restrictions), will be entered into the record. Where a commenter provided a link to a web page that summarized other documents, or just provided a text narrative, these were not included. Discrete papers or documents, whether peer-reviewed or not, were considered as one threshold for inclusion rather than text found on web pages that are open to editing at any time.

¹⁶ As the filing of the comments of the parties was simultaneous, Highland could only speculate as to the types of reports that might be submitted as countervailing evidence, and therefore does not offer specific positions on which, if any, of the peer-reviewed studies that have now been offered meet Highland’s standard.

Commission's ability to reach a well-reasoned outcome premised on reliable and verifiable scientific facts." (*Id.*)

Highland's argument is misplaced. The Commission entered into the record two specific reports under Wis. Stat. § 227.45(2)¹⁷ that were unavailable when it issued its Final Decision on Reopening on October 25, 2013, not a generally recognized fact or any established technical or scientific fact under Wis. Stat. § 227.45(3), and afforded the parties an adequate opportunity to rebut the reports or offer countervailing evidence.¹⁸

The standard proposed by Highland is also not consistent with Wis. Stat. § 227.45(1), which establishes that the standard is whether the evidence has "reasonable probative value," not whether the evidence is peer-reviewed. However, Highland is correct that the Commission, as the finder of fact, is charged with assessing the weight and credibility associated with the evidence offered. *See, e.g., Valadzic v. Briggs & Stratton Corp.*, 92 Wis. 2d 583, 598, 286 N.W.2d 540 (1979). "Where there are inconsistencies or conflicts in medical testimony, the [Commission], not the court, reconciles the inconsistencies and conflicts." (*Id.*) In assessing the weight and credibility of the evidence, the Commission may properly give more weight to peer-reviewed studies if it finds those studies more reliable and credible. The issue of whether a particular study is peer-reviewed goes towards the weight assigned, not the admissibility.

The Commission has carefully evaluated the studies, reports, articles and other reference materials offered and finds that all the evidence offered meets the evidentiary standard in

¹⁷ **Wisconsin Statute § 227.45 Evidence and official notice.**

(2) All evidence, including records and documents in the possession of the agency or hearing examiner of which the agency or hearing examiner desires to avail himself or herself, shall be duly offered and made a part of the record in the case. Every party shall be afforded adequate opportunity to rebut or offer countervailing evidence.

¹⁸ While the Commission took official notice of the 2014 Review and 2015 Review, not merely a fact from within the reports, the reports do contain certain generally recognized and established technical or scientific facts.

Wis. Stat. § 227.25(1), in that it has reasonable probative value, with the exception of four studies that were offered by members of the public:

1. Karwowska *et al.* 2015. The effect of varying distances from the wind turbine on meat quality of growing-finishing pigs. *Ann. Anim. Sci.*, 15(4), 1043-1054;
2. Abbasi *et al.* 2015. Effect of wind turbine noise on workers' sleep disorder: a case study of Manjil wind farm in northern Iran. *Fluctuation and Noise Letters*, 14(2);
3. Kugler *et al.* 2014. Low-frequency sound affects active micromechanics in the human inner ear. *R. Soc. open sci.* 1:140166; and
4. Münzel *et al.* 2014. Cardiovascular effects of environmental noise exposure. *European Heart Journal*. Doi:10.1093/eurheartj/ehu030.

These four studies are immaterial, irrelevant or unduly repetitious of other evidence in this proceeding and therefore lack reasonable probative value. The first study is irrelevant to the two issues in this reopened proceeding because it does not offer compelling evidence of human health impacts when turbines are sited to prevent noise levels above 50 dBA. The second study is irrelevant and lacks probative value to the issues in this reopened proceeding because the sound levels measured are much higher than the noise limits applicable to wind farms in Wisconsin, so any results would not be directly comparable. Further, the study had various issues with controlling for confounding factors, introducing bias, and regularly misstating correlation in one section and then referring to it as causation in later statements. The third study contains no references to wind turbine noise or wind generated infrasound and the sound levels to which participants were exposed are above the levels permitted in Wisconsin at nonparticipating residences near wind turbines, thus this study is irrelevant to the issues in the reopened proceeding. Finally, the fourth article is also irrelevant as it does not mention wind

turbines or wind farm noise and the nighttime noise levels above 55 dBA that were studied which are above the permissible level in Wisconsin. Thus, the Commission finds it is reasonable to accept all the studies, reports, articles and other reference materials offered with the exception of these four articles. The studies, reports, articles and other reference materials accepted into the record are listed in Appendix B.

Comments from the Parties and Public

As noted above, the Commission reopened this docket to address the two specific issues remanded to the Commission for further action. Comments not relevant to those two issues are properly excluded from the record. Wis. Stat. § 227.45(1). The comments offered by the parties are relevant to the topics of the reopening and are thus properly accepted into the record.¹⁹ In addition, many of the comments from the public are relevant to the topics of the reopening on remand and are also properly accepted into the record.²⁰

Certain comments from both within and outside the project area merely express support for or opposition to wind farms in general. These comments do not provide additional information that could assist the Commission in reaching a decision on the two specific

¹⁹ While the Commission accepts the comment of Richard James ([PSC REF#: 284895](#)), the Commission concludes that the graph submitted on page 26 on his comments is incorrect and misleading. He fails to mention that he omitted some of the data provided by the Health Canada study. With the inclusion of all of the relevant data, as depicted in Commission staff's correction in Agenda Memorandum dated May 20, 2016 ([PSC REF#: 288433](#), at Appendix C), his trends are not illustrated. Commission staff's corrected figure is admitted into the record. In addition, while the Commission accepts the comment of the Town, the Commission also notes and corrects a factual error stated multiple times within the Town's comment. The Town incorrectly asserts that the 2014 Review discussed sleep deprivation being reported by between 40-66 percent of the effected population when wind turbines operate above 45 dBA. This is incorrect; on page 8 of the 2014 Review, these numbers refer to the numbers of respondents that reported annoyance, and impacts to sleep are not stated. Sleep disturbance is referenced at the end of page 8 and continues on page 9 of the 2014 Review and concludes that approximately 4 percent of total respondents indicated that wind turbine noise interrupted their sleep.

²⁰ Additional comments that provide personal health information for some residents in the project area were incorporated into the comment by the Town (pp. 42-74) ([PSC REF#: 285292](#) Confidential). These comments are accepted into the record with the Town's comments.

remanded issues and are therefore not relevant. This proceeding was not reopened to evaluate the merits of wind farms in general, it was reopened to address only the two specific remanded issues. Thus, comments only expressing support for or opposition to wind farms in general are properly excluded from the record. The comments accepted into the record are listed in Appendix C.

Percentage Compliance Standard

The first substantive issue that was remanded to the Commission relates to the standard to be used to measure compliance with the noise standards post-construction. Wisconsin Admin. Code § PSC 128.14(3) provides that “an owner shall operate the wind energy system so that the noise attributable to the wind energy system does not exceed 50 dBA during the daytime hours and 45 dBA during the nighttime hours.” In the initial proceeding, there was a variety of testimony relating to what methodology should be used to measure compliance.

In the Final Decision for the initial proceeding, the Commission, while not deciding the issue, recognized “that there *may* be unavoidable circumstances notwithstanding the use of the most conservative modeling where curtailment may be necessary to avoid or respond to temporary excursions above stated audible noise limits.” ([PSC REF#: 182254](#), at 18.)

(Emphasis added.) The Commission went on to recommend that “[i]n future cases, it may be helpful for the parties to develop the record on this issue further and submit for the Commission’s consideration some sort of percentage-based standard that takes into account the *possibility* of infrequent and unavoidable exceedances of stated limits.” (*Id.* at 18-19.)

(Emphasis added.)

In the Final Decision on Reopening, the Commission concluded:

The Commission finds that a showing of compliance by Highland at or above 95 percent of the time is adequate for the Commission to consider the proposed project in compliance with applicable noise limits. Highland shall work with Commission staff to finalize the post-construction testing methodology to be used consistent with a percentage-based standard. The Commission also concludes that it is reasonable to modify the Commission's Noise Protocol so that this protocol is consistent with the Commission's findings in this proceeding.

([PSC REF#: 192339](#) at 35.)

While the court concluded that a percentage compliance standard is not vague, ambiguous or impossible to enforce, it found that there was not “substantial evidence in the record to support [the Commission’s] adopting of the 95 percent standard.” (Decision and Order at 104.) The court also found that the Commission did not provide adequate notice and hearing on the issue of adopting a percentage-based compliance standard and therefore remanded the issue to the Commission.²¹

The parties do not dispute that a pre-established standard for determining how to measure any potential future noncompliance with the audible noise requirements is not required for approval of the project. However, the comments from the Town and Forest Voice inaccurately conflate and confuse the proposed curtailment plan and the compliance standard, with only the latter being the proper subject of this limited reopening.

In the Final Decision on Reopening, the Commission specifically concluded that curtailment is an appropriate strategy to meet the noise limits, and Highland’s proposed

²¹ The court also found that the Commission’s decision to modify the Commission’s Noise Protocols to include the 95 percent compliance standard amounted to unauthorized rulemaking. However, pending the outcome of the litigation, the Commission did not modify its Noise Protocols and does not intend to make any modification at this time, so no further action is necessary on this issue.

curtailment plan ensured compliance with the applicable daytime and nighttime noise limits. (*Id.* at 22.) Upon judicial review, the circuit court upheld the Commission's determination holding that "there is substantial evidence in the record for the Commission to conclude that Highland's curtailment plan ensured compliance. The Town, the Commission and Highland all point to exhibits and testimony that directly address the issue of the ability of the curtailment plan to comply with applicable standards. The Town may not like the conclusion that was reached, but the conclusion the Commission reached was clearly supported by substantial evidence in the record." (Decision and Order at 115.) The Town did not appeal this determination. Thus, the curtailment plan is not an issue in this proceeding, and the Commission rejects the Town and Forest Voice's belated and improper attempt to re-litigate that issue as part of these limited reopened proceedings on remand.

The 95 percent compliance standard, in contrast, addresses the fact that although not shown by the sound modeling, one witness believed there was the possibility of unpredicted noise spikes occurring. The witness opined that he would consider the project to be in compliance if the measured sound level is in compliance with the limit 95 percent of the time or more. ([PSC REF#: 182254](#) at 18.)

Upon judicial review, the circuit court found the Commission did not provide adequate notice or a proper hearing on the issue of adopting a compliance standard and did not have substantial evidence in the record to support the 95 percent compliance standard. (Decision and Order at 115-16.) The circuit court therefore set aside the 95 percent compliance standard and remanded the issue to the Commission. (*Id.*) In its Decision and Order, the circuit court

specifically noted that no additional evidence had been obtained about the compliance standard in the reopened proceeding. (*Id.* at 103.)

In the Order to Reopen, Notice and Request for Comments, the Commission stated that it intended to modify its Final Decision on Reopening to remove the pre-established 95 percent compliance standard that was set aside by the circuit court and address any complaints concerning alleged noncompliance with the noise standards, based on the specific factual situation, at the time any noncompliance is alleged. This approach is consistent with the process used to investigate other complaints regarding noncompliance with a Commission order or rule.

In comments, Highland, Clean WI, and Forest Voice all requested that the Commission remove the 95 percent compliance standard for determining post-construction compliance. ([PSC REF#: 284905](#) at 2; [PSC REF#: 284903](#) at 1; [PSC REF#: 284904](#) at 6.) Several other members of the public also requested that the 95 percent compliance standard be removed. RENEW did not address this issue. The Town is the only party that requested that the Commission develop a compliance standard, percentage-based or otherwise. ([PSC REF#: 285293](#) at 3.)²²

As noted by both Highland and Clean WI, Highland will still be required to comply with robust, comprehensive and highly-detailed post-construction noise monitoring and reporting protocols that were part of the Commission's Final Decision on Reopening and remain unaffected by this Final Decision on Remand.

Highland and Clean WI argued that these comprehensive noise monitoring and reporting protocols are more than adequate to ensure Highland is in compliance with the noise limits in

²² Throughout the underlying judicial review proceeding, the Town vehemently opposed the establishment of a pre-determined compliance standard arguing the Commission had consistently "led the parties to believe that the Commission would base the Final Decision on whether Highland proved the Project would comply with PSC 128 noise limits 100% of the time." (Town of Forest Reply Brief at 36.)

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Wis. Admin. Code § PSC 128.14(3), incorporated in the Final Decision on Reopening. ([PSC REF#: 284905](#) at 2-4; [PSC REF#: 284903](#) at 1.) Highland further emphasized that the Commission retains authority to monitor and, if necessary, enforce the noise limits. As noted by the Commission, Wis. Admin. Code § PSC 128.14(3) does not articulate the methodology that is to be used to measure compliance or what constitutes compliance with the 50 dBA daytime and 45 dBA nighttime noise standards. ([PSC REF#: 192339](#) at 35.) However, the post-construction noise monitoring and reporting protocols will ensure the Commission has specific factual information about the situation to determine whether Highland is in compliance once the project is constructed.

The Town and Forest Voice continued to argue that the proposed project cannot adhere to the noise limits in Wis. Admin. Code § PSC 128.14(3). However, this argument relates to the ability of the curtailment plan to ensure compliance and, as this issue was already upheld by the circuit court, it is not an issue in this proceeding.

One of the key purposes of the post-construction sound monitoring protocols is to ensure the Commission has reliable post-construction data to ensure the project, as constructed, meets the noise standards, as predicted by the sound modeling. If a circumstance does arise where the noise from a turbine results in an excursion above stated audible noise limits, Highland would be required by the Commission's Final Decision on Reopening to immediately institute curtailment by reprogramming the turbine to ensure it does not exceed the applicable noise limits. ([PSC REF#: 192339](#) at 28.)

Despite the fact that the project is not yet constructed, making it impossible to know if any noise violations not predicted by the sound modeling will occur, the Town argued that the

Commission should preemptively create a pre-established compliance standard that would be used to adjudicate any complaints the Town believes are inevitable. ([PSC REF#: 285293](#) at 3-4.) Doing so, the Town argued, would “resolve this ambiguity” as it alleges “the Commission has already indicated that it may consider some degree of deviation from the standard to be acceptable under normal operating conditions.” (*Id.* at 6.) In essence, the Town argued that “some form of compliance standard is inevitable for this project,” and the Commission should adopt a compliance standard now “rather than after construction is completed and the unavoidable noise violations begin.” (*Id.* at 6-7.)

The Commission finds the Town’s arguments unpersuasive. A pre-established standard for judging future noncompliance with the audible noise requirements is not required for approval of the project. The Town’s argument rests on the proposition that noise violations will occur. However, as the project is not constructed, it is impossible to know if the situation envisioned by the Town will even occur, and the Commission already found the curtailment plan ensures compliance with the noise limits—a finding which was upheld on judicial review. As a pre-established standard for judging future noncompliance is not required under the CPCN statute or by Commission rules, the Commission finds that it is not reasonable to adopt any percentage-based compliance standard at this time. The Commission, in the Final Decision on Reopening, has already required Highland to comply with the complaint procedure in Wis. Admin. Code. § PSC 128.40 and comply with detailed post-construction sound monitoring protocols that will show whether the constructed project is in compliance with the noise limits. These requirements remain and are not disturbed or modified by this Final Decision on Remand. The establishment of a compliance standard now would lack the detailed information that would

be available from the post-construction sound monitoring protocols. Therefore, the Commission finds that it is reasonable to remove the pre-established 95 percent compliance standard and address any complaints concerning alleged noncompliance with the noise standards, based on the specific factual situation, at the time any noncompliance is alleged.

Forest Voice also raised concerns regarding the effectiveness of the complaint process under Wis. Admin. Code § PSC 128.40. The complaint process specified by Wis. Admin. Code § PSC 128.40 contains detailed procedures allowing an aggrieved person to make a complaint, the actions required by the wind energy system owner to resolve the complaint and a defined appeal process for review of complaints not resolved within 45 days of the complaint. However, Forest Voice asserted that “multiple individuals living near other existing wind farms in Wisconsin testified that they were never able to satisfactorily resolve complaints through the Commission’s process.” ([PSC REF#: 284904](#) at 9.) What Forest Voice failed to note is that Wis. Admin. Code § PSC 128.40 became effective on March 1, 2011. The most recent wind farm approved by the Commission was the Glacier Hills Wind Park in Columbia County, Wisconsin, in a Final Decision dated January 22, 2010. ([PSC REF#: 126124.](#)) Thus, this argument is misplaced as there are no wind farms in Wisconsin, other than this one, approved by the Commission to which the complaint process in Wis. Admin. Code § PSC 128.40 is applicable.

Noise Limit Applicable to “Sensitive” Residences

The second substantive issue remanded to the Commission related to the acceptance of an agreement by Highland to ensure a lower noise standard for six “sensitive” residences.²³ In the reopened proceeding, Highland agreed to a noise limit of 40 dBA during nighttime hours for the sound attributable to the turbines near six residences identified as occupied by potentially “sensitive” individuals. Highland also submitted sound modeling that demonstrated compliance with this lower limit at these residences.

Upon judicial review, the circuit court found that: “[t]his Court is fully aware that no accommodation needed to be ordered by the Commission for any of the 17 identified residences.” (Decision and Order at 111.) However, as the Commission did accept Highland’s proposed lower noise limit for the six residences, the circuit court found that the Commission failed to provide a full hearing on the selection of the “sensitive” residences, the Commission’s acceptance of Highland’s proposal on the six “sensitive” residences was without substantial evidence in the record, and the Commission’s decision not to apply the lower noise standards to other residences lacked substantial evidence in the record. The court therefore remanded the issue to the Commission with the direction to either: (1) state why, based on the record already accumulated, the six residences were selected and the other eleven were not; or (2) reopen the docket “*solely* for the purpose of allowing the parties *to state* why other sensitive residences, already identified, should be considered and the Commission can then decide if others, already identified, should be included with the original six residences.” (Decision and Order at 116 (emphasis added).)

²³ Clean WI’s comments argued it is unclear what makes a resident “sensitive” to wind turbine noise. The term is not defined by the Commission’s Final Decision on Reopening or evidence in the record.

However, the circuit court's remand instructions contain an inherent contradiction. The circuit court specifically found that the Commission adopted Highland's proposed noise limit for the six "sensitive" residences without substantial evidence in the record, but then directed the Commission to determine if other residences should receive a similar lower noise limit. (Decision and Order at 112.) As noted by the circuit court, a finding of an agency is required to be supported by substantial evidence. It is therefore unclear how the Commission could continue to require Highland to extend the lower noise levels to the six or extend it to others without substantial evidence to support the lower noise limit.

To address this issue on remand, the Commission exercised its discretion under Wis. Stat. § 196.39(1) to reopen the docket to obtain additional evidence on this issue and take official notice, under Wis. Stat. § 227.45, of two reports prepared at the direction of the Legislature of peer-reviewed literature related to wind turbine noise and human health. Such a reopening was necessary to obtain substantial evidence to address the issues related to the selection of "sensitive" residences that was remanded by circuit court.

In comments for the reopened proceeding on remand, the Town provided updated health surveys and statements from potential "sensitive" residences describing the existing health issues that residents believed may be aggravated by the wind turbines proposed to be constructed by Highland and medical conditions residents believed are caused by wind turbines. ([PSC REF#: 285293](#) at 42-74.) These surveys and statements listed a myriad of health conditions including: mental health issues; hypersensitivity to sound; sleep disturbance/disorder; migraines; heart problems; macular degeneration; high blood pressure; hypertension; headaches; vertigo; dizziness; ear pain; stress; insomnia; autism spectrum disorder; Attention Deficit Hyperactivity

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Disorder; extreme sensitivity to stimulus; epilepsy/seizures; heart valve issues; extra heart beat; diabetes; chronic lymphocytic leukemia; hearing loss; Asperger's syndrome; tinnitus; Parkinson's disease; balance disorder; osteoarthritis; light headedness; motion sickness; heart attacks; arterial fibrillation; sleep apnea; anxiety; depression; and asthma. (*Id.*)

The tables below identify the property locations at issue²⁴ and a summary of the alleged conditions, based upon information from the initial proceeding, as supplemented by the information the Town provided in this reopened proceeding. The first table identifies the six previously identified "sensitive" residences and the reported health concerns, and the second table identifies the additional residences from Ex.-Forest-Junker-20 with a summary of the reported health concerns.

²⁴ There is some confusion as to the total number of residences at issue. The circuit court, presumably relying upon Ex.-Forest-Junker-20, identifies a total of 17 residences at issue: six that received the lower noise limit, and eleven that did not. However, this total number is incorrect. Of the 17, there is one duplicate residence. In addition, two of the six receiving the lower standard are not included in Ex.-Forest-Junker-20. Adding the 16 separate residences and the two not included in the exhibit leads to a total of 18 residences that are at issue and the subject of the court's remand. There is also confusion as to the identified residences given some typographical errors in Ex.-HWF-Munding-10. These errors are noted in the tables in an attempt to resolve further confusion.

Six Identified Residences Listed in Ex.-HWF-Mundinger-10 – Health Conditions Listed in Public Comments and Transcripts – Updated with Information from Town of Forest Comments		
House Number	Address	Health Conditions
1 (Same as House No. 1 in Ex.-Forest-Junker-20)	2670 Highway 64	Severe autism - PSC REF#: 164962, 171119, 175196, 175140
2	2719 210th AVE	Autism spectrum, ADHD - PSC REF#: 175141, 175196 <i>Town's comments also include: Migraines, insomnia, epilepsy</i>
3 (Same as House No. 8 in Ex.-Forest-Junker-20)	3116 County Road Q	Extremely hypersensitive to noise, not diagnosed, but possibilities include autism spectrum disorder, undisclosed mental health issue; extreme sensitivity to sound and sleep disturbance - PSC REF#: 177173, 175141, 175196 <i>Town's comments also include: Migraines</i>
4 (Same as House No. 3 in Ex.-Forest-Junker-20)	2577 County Road P <i>Note: Address incorrect in Ex.-HWF-Mundinger-10. Actual address is 2257 CTY RD P.</i>	Headaches/migraines, hearing problems, motion sickness PSC REF#: 177173, 175141
5 (Same as House Nos. 16 and 17 in Ex.-Forest-Junker-20)	2946 Highway 64 <i>Note: Address incorrect in Ex.-HWF-Mundinger-10. Actual address is 2948 Highway 64.</i>	Parkinson's disease, unsteadiness, motion sickness, seizure disorder PSC REF#: 177175, 175196
6	2168 County Road P	Inner ear problem that causes extreme difficulty with balance, even walking PSC REF#: 175140 <i>Town's comments also include: Migraines, high blood pressure, vertigo, heart valve issues, extra heart beat</i>

Ex.-Forest-Junker-20 – Updated with Information from Town of Forest Comments			
House Number	Address	Health Conditions	
1 (Same as House No. 1 in Ex.-HWF-Mundinger-10) Included in Original 6	2670 State Road 64, Emerald	Severe autism	
2	3188 20th Street, Glenwood City	Heart condition	
3 (Same as House No. 4 in Ex.-HWF-Mundinger-10) Included in Original 6	2257 County Road P, Clear Lake	Headaches/migraines, hearing problems, motion sickness	
4	1892 County Road D, Glenwood City	Heart conditions, hearing problems, tinnitus, hearing loss <i>Town's comments also include: Sleep apnea, sleeping problems, high blood pressure, heart arrhythmia, hearing loss, dizziness during day</i>	
5	3146 205th Avenue, Glenwood City	Hearing problems, hearing aid	
6	3162 State Road 64, Glenwood City	Heart condition, hearing problems, dizziness or vertigo, tinnitus, hearing aid, suffered hearing loss <i>Town's comments also include: Increased sensitivity to motion and light, diabetes, chronic lymphocytic leukemia, increased hearing loss, hearing aids</i>	

Ex.-Forest-Junker-20 – Updated with Information from Town of Forest Comments		
House Number	Address	Health Conditions
7	2119 County Road P, Emerald	Hearing problem, hearing aid
8 (Same as House No. 3 in Ex.-HWF-Munding-10) Included in Original 6	3116 County Road Q, Clear Lake	Child with problems with exposure to loud noise
9	2722 200th Avenue, Emerald	Headaches, hearing problems, sleepiness, dizziness or vertigo, tinnitus, suffered hearing loss
10	1969 County Road P, Glenwood City	Irregular heartbeats <i>Town's comments also include: Asthma, prone to headaches, hearing loss, vertigo,</i>
11	2953 210th Avenue, Emerald	Headaches/migraines, hearing problems, suffered hearing loss. <i>Town's comments also include: High blood pressure, clinical depression, tendency toward headaches, increased hearing loss, tinnitus,</i>
12	2969 210th Avenue, Emerald	Motion sickness
13	3174 205th Avenue, Glenwood City	Hearing problems, suffered hearing loss, heart palpitations <i>Town's comments also include: Heart attacks, atrial fibrillation, sleep apnea, macular degeneration, severe headaches, hypersensitivity to noise</i>

Ex.-Forest-Junker-20 – Updated with Information from Town of Forest Comments		
House Number	Address	Health Conditions
14	2878 County Road Q, Clear Lake	Headaches/migraines
15	3136 County Road Q, Clear Lake	Heart palpitation, enlarged heart, headaches/migraines, heart condition <i>Town's comments also include: Macular degeneration, high blood pressure, hypertension, headaches, sleep disorder</i>
16 (Same as House No. 5 in Ex.-HWF-Mundinger-10) Included in Original 6	2948 Highway 64, Glenwood City ²⁵	Parkinson's disease, unsteadiness, motion sickness; seizure disorders

The Town requested that the Commission expand the 40 dBA nighttime restriction to all identified residences, and apparently to a newly-identified residence adjacent to a previously identified residence. The Town also provided three studies and pointed to the minority report of the Wind Siting Council that it apparently believed support the finding of a causal link between the health conditions identified and wind turbine noise. (*Id.* at 18-41.)

²⁵ The 2948 Highway 64 location requires some further explanation. The residents of that property have since moved out of that property and into an adjacent residence not previously identified, 2920 Highway 64. ([PSC REF#: 285293](#) at 59.) Order Condition 9 of the Final Decision on Reopening states: “Highland may eliminate the 40 dBA limit at any of the six identified residences when the resident with special needs no longer resides at the residence.” ([PSC REF#: 192339](#) at 48.) The Town, in its comments in this reopened proceeding on remand, appear to be seeking to add an additional property (2920 Highway 64) and to retain the lower standard at the previously identified property (2948 Highway 64) for the benefit of new occupants who have submitted new information about their health concerns (seizure disorder, motion sickness, anxiety, depression, noise and light exposure causes headaches and flu-like symptoms). ([PSC REF#: 285293](#) at 59 and 65.)

Forest Voice provided no studies, but urged the Commission “to give full weight to the real-life experiences of members of the public who live near wind turbines.” It argued that “[s]o called ‘anecdotal’ evidence should not be ignored.” ([PSC REF#: 284904](#) at 13.) In addition, Forest Voice argued that the standard, “a reasonable degree of scientific certainty,” is incorrect and the proper standard under Wis. Stat. §196.491(3)(d)(4) is whether the project will have an “undue adverse impact on other environmental values, such as, but not limited to . . . public health and welfare. . . .” (*Id.* at 11-12.)²⁶ Finally, Forest Voice argued that the Commission “violated” the order of the circuit court by reopening the matter to take official notice of the two reports and to consider whether lower noise limits should be extended to any or all already identified “sensitive” residences, and removing the lower nighttime standard for the six residences would “smack of retaliation.” (*Id.* at 16.)

Highland’s comments discussed the findings of the 2014 Review and 2015 Review and argued these studies of the peer-reviewed literature support the Commission’s conclusion in both the Final Decision and Final Decision on Reopening, which preceded the studies, that no causal relationship has been established between wind turbines and human health to a reasonable degree of scientific certainty. ([PSC REF#: 284905](#) at 5-9.) In the absence of reliable evidence showing that the health conditions listed by residents in the project area would be aggravated by wind turbines or that they would otherwise be susceptible to adverse health impacts from the wind turbines at or below the noise limits in Wis. Admin. Code § PSC 128.14(3), Highland urged the

²⁶ Forest Voice is simply incorrect about the standard applied in this docket. The Commission specifically found: “The Highland project, as modified by this Final Decision on Reopening, will not have undue adverse impact on other environmental values such as, but not limited to, ecological balance, public health and welfare, historic sites, geological formations, the aesthetics of land and water, and recreational use.” ([PSC REF#: 192339](#) at 5.) This finding was not challenged in the judicial review proceedings.

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Commission not to impose lower noise limits for any subset of residences in the project area. (*Id.* at 9.) Highland also questioned the validity and usefulness of the Town’s surveys of residences. (*Id.* at 15.)

Clean WI argued that there is no basis for ordering a lower noise limit for potentially “sensitive” residences as there is no evidence that wind turbines cause or exacerbate health problems. ([PSC REF#: 284903](#) at 2-7.) Clean WI identified ten new relevant peer-reviewed studies published after the 2015 Review that it asserted provide further information to refute any proposed link between wind turbine noise and health effects. (*Id.* at 4.) As a result, Clean WI urged that the “Commission should not impose sound limits that differ from those specified in Wis. Admin. Code § PSC 128 on any residences in the project area, because there is no evidence that wind turbine noise impacts human health and even if it did, the record in this case is insufficient to justify special treatment for any particular residences.” (*Id.* at 8.)

The Commission finds the arguments by the Town and Forest Voice on this issue unpersuasive. As the circuit court noted, “no accommodation needed to be ordered by the Commission for any of the 17 identified residences.” (Decision and Order at 111.) The 2014 Review, the 2015 Review and the additional evidence received generally support the Commission’s prior conclusions that the noise limits in Wis. Admin. Code ch. PSC 128 are “protective of public health and welfare” and “the Commission is not convinced that a causal link between audible or inaudible noise at wind generating facilities and human health risks has been established to a reasonable degree of scientific certainty.” ([PSC REF#: 192339](#) at 16.) Even assuming all the self-reported medical conditions of the identified residents exist, the Commission remains unconvinced that a causal link between the conditions and the wind

turbines proposed to be constructed as part of this project exists. The additional evidence received during these reopened proceedings on remand confirms that there is not substantial evidence to support a causal link between the alleged health conditions and wind turbine noise. In addition, when reviewing the six residences compared to the others who were not previously identified for a lower noise limit, it is clear there is not substantial evidence to differentiate the six.

Accordingly, the Commission therefore finds that it is reasonable to require Highland to comply with the noise limits in Wis. Admin. Code § PSC 128.14(3) for all nonparticipating residences in the project area. However, it is not reasonable to require Highland to provide a noise limit lower than that specified in Wis. Admin. Code § PSC 128.14(3) to either the six previously identified residences or any other identified residences in the project area as there is not substantial evidence in the record to support a lower noise standard for any of the identified residences.

Further, the Commission finds the claims of retaliation by Forest Voice to be unfounded. The circuit court and Wis. Stat. § 227.57(6) require that the Commission's findings of fact be based on substantial evidence in the record. Substantial evidence supports the Commission's findings on this issue. Ensuring that the same noise limit specified in Wis. Admin. Code § PSC 128.14(3) is equally applied to all nonparticipating residences is reasonable.

Procedural Due Process

The Town requested that the Commission hold a hearing on the remanded issues ([PSC REF#: 285293](#)), and Forest Voice argued that not holding a hearing would be in violation of the Decision and Order of the circuit court. ([PSC REF#: 284904](#) at 2.) Neither party, however, fully developed any legal argument to support their assertions to a right to a hearing. While Forest Voice mentioned Wis. Stat. § 227.42, it failed to explain how, if at all, this statutory provision even applies. This provision provides, in relevant part:

227.42 Right to Hearing.

(1) In addition to any other right provided by law, any person filing a written request with an agency for hearing shall have the right to a hearing which shall be treated as a contested case if:

(a) A substantial interest of the person is injured in fact or threatened with injury by agency action or inaction;

(b) There is no evidence of legislative intent that the interest is not to be protected;

(c) The injury to the person requesting a hearing is different in kind or degree from injury to the general public caused by the agency action or inaction; and

(d) There is a dispute of material fact.

(2) Any denial of a request for a hearing shall be in writing, shall state the reasons for denial, and is an order reviewable under this chapter. If the agency does not enter an order disposing of the request for hearing within 20 days from the date of filing, the request shall be deemed denied as of the end of the 20-day period.

(3) This section does not apply to rule-making proceedings or rehearings, or to actions where hearings at the discretion of the agency are expressly authorized by law.

* * *

In interpreting the predecessor statute to Wis. Stat. § 227.42, which used the same four criteria identified above in subsections (1)(a)-(d), the Wisconsin Supreme Court held that the statute “creates an independent right to a hearing conditioned only on the satisfaction of the elements outlined in sec. 227.064(1)(a)-(d)”. *Milwaukee Metro. Sewerage Dist. v. Wis. Dep't of Natural Res.*, 126 Wis. 2d 63, 75, 375 N.W.2d 648, 653 (1985). If a person can satisfy these criteria, then they are entitled to a hearing before an agency. (*Id.*)

However, a person is not entitled to a hearing under Wis. Stat. § 227.42 before a state agency in actions where a hearing can be held at the discretion of the agency under Wisconsin law. Wisconsin Stat. § 227.42(3) thus limits the application of the statute. This provision states that “[t]his section does not apply . . . to actions where hearings at the discretion of the agency are expressly authorized by law.” The Wisconsin Supreme Court has previously applied this restriction on a request under Wis. Stat. § 227.42 for hearing before the Commission. The Court held that whether to hold a hearing is a decision “for the sound discretion of the agency involved.” *Wis.'s Envtl. Decade, Inc. v. Pub. Serv. Comm'n*, 79 Wis. 2d 409, 441, 256 N.W.2d 149, 166 (1977). Lower courts also find that if there is discretion to hold a hearing, the agency should be allowed to decide rather than providing an independent statutory basis for one under Wis. Stat. 227.42. The Wisconsin Circuit Court held that parties “are not automatically entitled to a hearing when hearings at the discretion of the agency are expressly authorized by law.” *Nos Communications, Inc. v. Pub. Serv. Comm'n of Wis.*, 2002 WL 34393284, Case No. 01-CV-3314 (June 18, 2002). The Wisconsin Court of Appeals also held that if an agency has discretion to hold a hearing, it precludes a person’s right to demand one under Wis. Stat. § 227.42. *N. Lake Mgmt. Dist. v. Wis. Dep't of Natural Res.*, 182 Wis. 2d 500, 508, 513 N.W.2d 703, 706

(Ct. App. 1994). Therefore, the plain language of the statute, as well as the interpretative case law make clear that a party is not entitled to a hearing under Wis. Stat. § 227.42 before a state agency when hearings can be held at the discretion of the agency under Wisconsin law.

The threshold question when assessing whether the Town or Forest Voice have a statutory right to a hearing is whether, in light of the current procedural posture of this case, having a hearing is within the discretion of the Commission. The original proceeding was a proceeding under Wis. Stat. § 196.491 that required a hearing. In that proceeding, the Commission considered nearly 1,000 pages of pre-filed written testimony, over 200 exhibits and more than 600 public comments. In addition, parties provided additional testimony at 8 days of technical hearings and submitted 21 party briefs on the merits of the application. This evidence is still a part of the record of this reopening proceeding.

The Commission reopened the proceeding on remand under Wis. Stat. § 196.39 which provides, in relevant part:

196.39 Change, amendment and rescission of orders; reopening cases.

(1) The commission at any time, upon notice to the public utility and *after opportunity to be heard*, may rescind, alter or amend any order fixing rates, tolls, charges or schedules, or any other order made by the commission, and may reopen any case following the issuance of an order in the case, for any reason.

(2) An interested party may request the reopening of a case under s. 227.49.

(3) Any order rescinding, altering, amending or reopening a prior order shall have the same effect as an original order.

(Emphasis added.)

Based upon the plain language of the statute, Wis. Stat. § 196.39(1) does not require a hearing; it requires an “opportunity to be heard.” The requirement to provide an opportunity to

be heard under Wis. Stat. § 196.39(1) is fundamentally a procedural due process requirement and, depending on the particular situation, may be satisfied if a party is provided “[t]he opportunity to present reasons, either in person *or in writing*, why proposed action should not be taken. . . .” *Waste Mgmt. of Wis., Inc. v. State Dep’t of Natural Res.*, 128 Wis. 2d 59, 78, 381 N.W.2d 318 (1986) (emphasis added). In any matter within the Commission’s jurisdiction where a hearing is not specifically required by statute, “the commission may initiate, investigate, and order a hearing *at its discretion* upon such notice as it deems proper.” Wis. Stat. § 196.02(7) (emphasis added). Thus, unless a hearing is specifically required by statute, the decision of whether to hold a hearing is expressly at the Commission’s discretion.

Under Wis. Stat. § 196.39(1), a contested case hearing is not required. When the Legislature imposes a specific requirement for the Commission to hold a hearing, it uses the word “hearing” not “opportunity to be heard.” See Wis. Stat. § 196.20 (“No change in any public utility rule which purports to curtail the obligation or undertaking of service of the public utility shall be effective without the written approval of the commission *after hearing*”) (emphasis added); Wis. Stat. § 196.371(3)(a) (“The commission shall *conduct a hearing* on an application for an order under this section.”) (emphasis added); Wis. Stat. § 196.491(3)(b) (“The commission *shall hold a public hearing* on an application filed under par. (a) 1. that is determined or considered to be complete in the area affected pursuant to s. 227.44.”) (emphasis added).

The fact that the Legislature was aware of the difference between the two terms is evident even from comparing Wis. Stat. § 196.39(1), which uses the term “opportunity to be heard” and Wis. Stat. § 196.39(4), which permits the correction of an order “without hearing” if the

correction is made within 30 days. *Pawlowski v. American Family Mut. Ins. Co.*, 2009 WI 55, ¶ 22, 322 Wis. 2d 21, 777 N.W.2d 67 (“When the legislature chooses to use two different words, we generally consider each separately and presume the different words have different meanings.”); *Graziano v. Town of Long Lake*, 191 Wis. 2d 812, 822, 530 N.W.2d 55 (Ct. App. 1995), rev. den. 537 N.W.2d 573 (1995) (“where the legislature uses similar but different terms in a statute, particularly within the same section, we may presume it intended the terms to have different meanings.”).

Given that a hearing under Wis. Stat. § 196.39 is discretionary, the exception under Wis. Stat. § 227.42(3) negates any legal requirement under that statute to hold a hearing. As a result, the Commission concludes that no hearing is required as a matter of law to address the items remanded. However, even if Wis. Stat. § 227.42 does apply, as will be discussed below, the parties have failed to show that the four statutory criteria are satisfied.

The Town and Forest Voice argued that the Decision and Order require a hearing on the issues remanded. Those arguments, on each of the remand issues, will be discussed separately below, and, while neglected by the parties, the Commission will nonetheless assess whether the criteria mandating a hearing (assuming *arguendo* that Wis. Stat. § 227.42 applies) for either of the remand issues has been met. The Town also attempted to minimize the fact that the Commission retains the authority to amend its order. This statutory power in Wis. Stat. § 196.39(1) was not disturbed by the circuit court, and the Commission does not require specific language in the court’s decision to rescind, alter or amend its order.

A. Hearing on the Compliance Standard

The Town and Forest Voice argued in their comments that the Commission cannot remove the 95 percent compliance standard without first holding a hearing. To reach this conclusion they relied on the Decision and Order of the circuit court which states: “Pursuant to Wis. Stat. § 227.57(2) & (4), the action of the Commission adopting a 95% compliance standard is set aside and the matter remanded to the Commission for the purpose of providing proper notice and hearing on the issue of adopting a percentage compliance standard.” (Decision and Order at 64.)

The Decision and Order of the circuit court is clear that the Commission did not have substantial evidence to adopt the 95 percent compliance standard and *if* a percentage-based compliance standard is adopted, the Commission is required to hold a further evidentiary hearing. (*Id.*) However, the Decision and Order simply does not state whether a hearing is required if the Commission *removes* any percentage compliance standard. The court stated that it remanded the case “to the Commission for the purpose of providing proper notice and hearing on the issue of *adopting* a percentage compliance standard.” (*Id.*) (Emphasis added.) Inherent in the circuit court’s decision requiring a hearing was an assumption on the part of the court that a pre-established compliance standard permitting some level of noncompliance would continue to be considered and adopted by the Commission. As a result, the circuit court did not address the process necessary if the Commission determines that it is unnecessary to pre-establish any type of compliance standard because the sound modeling and the curtailment plan demonstrates that the project will be in compliance with the noise limits in Wis. Admin. Code § PSC 128.14(3).

Despite no process being specifically provided for by the circuit court, the Commission did provide a reasonable opportunity to be heard through a 30-day comment period. All the parties, except the Town—which argued against a compliance standard in the case before the circuit court—expressed support for the Commission’s intention to remove the 95 percent compliance standard.

While neither Wis. Stat. § 196.39 nor the Decision and Order require a hearing, assuming *arguendo* that Wis. Stat. § 227.42 applies, subsection (1) sets out four standards that must be satisfied in order for a person to have a right to a hearing:

227.42 Right to hearing.

(1) In addition to any other right provided by law, any person filing a written request with an agency for hearing shall have the right to a hearing which shall be treated as a contested case if:

(a) A substantial interest of the person is injured in fact or threatened with injury by agency action or inaction;

(b) There is no evidence of legislative intent that the interest is not to be protected;

(c) The injury to the person requesting a hearing is different in kind or degree from injury to the general public caused by the agency action or inaction; and

(d) There is a dispute of material fact.

A person requesting a contested case hearing must meet all four of these standards in order to have a right to a hearing. The parties do not meet the statutory criteria to be entitled to a hearing. First, no substantial interest of the Town or Forest Voice is threatened with injury by the Commission’s action to remove the 95 percent compliance standard. Removal of the 95 percent compliance standard ensures the project, once constructed, will be in compliance with the noise limits in Wis. Admin. Code § PSC 128.14(3) at all times, thus *preventing* any potential injury to

the Town or Forest Voice. Thus Wis. Stat. § 227.42(1)(a) and (c) are not satisfied because there is no injury in fact or threat of injury.

In addition, there is no dispute of a material fact. No party disputes that a pre-established compliance standard is not required for approval of the project. While the Town and Forest Voice attempted to revive their unsuccessful argument that the project cannot comply with the noise limits in Wis. Admin. Code § PSC 128.14(3) because of the perceived possibility of noise in excess of the noise limits, the Commission's decision that the curtailment plan ensures compliance was upheld by the circuit court, and this issue is not within the scope of this reopened proceeding on remand. Both the Town and Forest Voice failed to identify any disputed issues of material fact related to the removal of the compliance standard.

For all of these reasons and because the parties and the public have been provided with a full and fair opportunity to be heard on the subject, the Commission finds that no hearing is required before modifying the Commission's Final Decision on Reopening to remove the provisions therein related to the establishment of a 95 percent compliance standard.

B. Hearing on the Lower Noise Standard for Certain Residences.

Similar to the issue of removing the 95 percent compliance, the Town and Forest Voice argued that the Commission is required to hold a hearing on this issue. ([PSC REF#: 285293](#) at 8; [PSC REF#: 284904](#) at 5.) Two arguments are proffered. First, the Town argued that “[t]here is no suitable method, without a contested case, of evaluating the residents in Ex.-Forest-Junker-20 and determining which have health conditions warranting protections.” ([PSC REF#: 285293](#) at 8.) Second, the Town argued that the “remand did not include language that would allow for the removal of the privileges already conferred on the six residences.” (*Id.* at 9.)

Regarding the first argument, the circuit court found that the Commission erred by adopting the selection of the six without substantial evidence in the record.

Did the Commission adopt the staff's selection and Highland's proposal on the six sensitive residences without substantial evidence on the record?

Answer: Yes.

(Decision and Order at 116.)

The Commission recognized this same lack of evidence in the record when it stated in the Final Decision on Reopening: “[f]urther, there is no evidence in the record that demonstrates how a 40 dBA limit may remedy any issues a wind turbine may allegedly create near the sensitive residences.” ([PSC REF#: 192339](#) at 17.)

The Commission took official notice of two reports addressing wind turbine noise and health effects and provided the parties a reasonable opportunity to rebut the studies reviewed by the reports or present countervailing evidence. The Commission has reviewed the evidence received and has determined that the additional evidence supports the Commission’s prior conclusion that there is not substantial evidence supporting a causal link between audible or inaudible noise at wind generating facilities and human health risks. As there is not substantial evidence for requiring a lower noise limit for any of the already identified residences, there is no need to hold a contested case to determine “which have health conditions warranting protections.”

The second argument advanced by the Town is that a hearing is required to remove “privileges already conferred.” ([PSC REF#: 285293](#) at 9.) The term “privileges already conferred” does not appear in the Wisconsin statutes and has never been used in Wisconsin case law. Indeed, no authority is cited for the proposition that a hearing is required to amend the

Commission's decision adopting Highland's voluntary agreement to obligate itself to a lower noise limit of 40 dBA for the six identified residences. The Town may be referencing the concept of "legally protected right" which is a constitutionally protected right or a right required by statute. *See GMAC Mortgage Corp. v. Gisvold*, 215 Wis. 2d 459, 480, 572 N.W.2d 466, 476 (1998) (discussing Wis. Stat. § 846.17 and noting that "a court's exercise of equitable authority is only appropriate when a legally protected right has been invaded").

The Town may also be referencing, without citation, case law related to the due process required for decisions depriving a person of a property interest. However, the six residences do not have a "legally protected right" to a lower noise limit than is provided for in Wis. Admin. Code ch. PSC 128 or a "property interest" in the lower noise limit. Any lower noise limit is only the result the Commission's adoption of Highland's proposal for a lower noise limit for the six residences, which the circuit court found lacked substantial evidence. Property interests are created and defined "by existing rules or understandings that stem from an independent source such as state law." *Bd. of Regents of State Colleges v. Roth*, 408 U.S. 564, 577, 92 S. Ct. 2701, 2709, 33 L. Ed. 2d 548 (1972). In other words, to have a property interest in the lower noise standards, the six residences must have "more than an abstract need or desire for it [or] a unilateral expectation of it"; there must be "a legitimate claim of entitlement to it." (*Id.*) Commission orders are subject to amendment at any time, for any reason upon reasonable opportunity to be heard. Wis. Stat. § 196.39(1). Thus, neither the six residences nor the Town have a legitimate claim of entitlement to a lower noise standard.

Finally, even assuming *arguendo* that Wis. Stat. § 227.42 applies, no right to a hearing exists. Under Wis. Stat. § 227.42(1)(a) a substantial interest of the person must be injured in fact

or threatened with injury by agency action or inaction. A substantial interest “is created and defined ‘by existing rules or understandings that stem from an independent source such as state law—rules or understandings that secure certain benefits and that support claims of entitlement to those benefits.’” *Coe v. Bd. of Regents of Univ. of Wis. Sys.*, 140 Wis. 2d 261, 273, 409 N.W.2d 166, 170 (Ct. App. 1987); *see also Reidinger v. Bd. of Regents of Univ. of Wis. Sys.*, 2001 WI App 31, ¶ 5, 241 Wis. 2d 49, 622 N.W.2d 770 (“A ‘substantial interest’ is one based on a legitimate claim of entitlement created by an independent source such as state law.”). In the absence of a substantial interest, the Commission is not required to provide a contested case hearing. Moreover, the alleged injury cannot be merely hypothetical.

In this case there is no substantial interest or threat of injury present. The only interest in a noise limit lower than that provided for in Wis. Admin. Code § PSC 128.14(3) stems from a Commission order that can be changed at any time, for any reason. Wis. Stat. § 196.39. Further, the argument that an injury may occur is speculative and hypothetical. A causal link between audible or inaudible noise at wind generating facilities and human health risks has not been established to a reasonable degree of scientific certainty, thus any alleged injury or threat of injury is speculative and hypothetical. Similarly, Wis. Stat. § 227.42(c) is not satisfied because any alleged injury or threat of injury is speculative and hypothetical.

In addition, Wis. Stat. § 227.42(1)(d) is not satisfied as there is not a dispute of material fact. While the term “dispute of material fact” is not defined in Wis. Stat. § 227.42(1), the term “material fact” is “a well-established term of art in cases employing summary judgment methodology.” *See e.g., Haase-Hardie v. Wis. Dep’t of Nat. Res.*, 2014 WI App 103, ¶ 13, 357 Wis. 2d 442, 451-52, 855 N.W.2d 443, 448 (citing Wis. Stat. § 802.08(2) a “moving party is

entitled to summary judgment only if there is “no genuine issue as to any material fact”). In the summary judgment context, a material fact is “one that is ‘of consequence to the merits of the litigation.’” *Schmidt v. N. States Power Co.*, 2007 WI 136, ¶ 24, 305 Wis.2d 538, 742 N.W.2d 294. “In other words, it is a fact that ‘affects the resolution of the controversy[.]’” *Haase-Hardie*, 2014 WI App 103 at ¶ 13 citing *Clay v. Horton Mfg. Co.*, 172 Wis. 2d 349, 354, 493 N.W.2d 379 (Ct. App. 1992).

The Commission found in the Final Decision on Reopening that it “is not convinced that a causal link between audible or inaudible noise at wind generating facilities and human health risks has been established to a reasonable degree of scientific certainty.” ([PSC REF#: 192339](#) at 16.) This finding was not challenged in the judicial review proceeding and is supported by the additional evidence received in this proceeding on remand. Thus, there is not a dispute of material fact that is within the scope of this proceeding.

The circuit court required substantial evidence for the Commission to select “sensitive” residences for a lower noise standard, and the evidence in the record does not support differentiating between the health conditions of the identified residents of the Town. Further, it is likely “[a]dditional procedural safeguards, such as a full-fledged evidentiary hearing before the [Commission], would impose a substantial additional fiscal and administrative burden upon the state without a corresponding decrease in the risk of an erroneous decision.” *Waste Mgmt. of Wis., Inc. v. State Dep’t of Natural Res.*, 128 Wis. 2d 59, 78, 381 N.W.2d 318 (1986). The opportunity to be heard provided by the Commission was sufficient to ensure the Commission has substantial evidence on this issue and satisfies all procedural due process requirements.

Finally, the circuit court ordered that the matter is reopened “*solely* for the purpose of allowing the parties to *state* why other sensitive residences, already identified, should be considered and the Commission can then decide if others, already identified, should be included with the original six residences.” (Decision and Order at 116 (emphasis added).) When the circuit court found that a hearing was required on an issue, it used the term hearing. On this issue, the circuit court specifically ordered that the matter was not remanded “for [a] further evidentiary hearing on other residents who may be sensitive to noise.” (*Id.*) Thus, the circuit court did not envision, much less require, a full-fledged contested case hearing on this topic.

Order

1. All references to requirements that Highland comply with a 40 dBA nighttime noise limit are removed, including the following:

a. The portion of the section of the Final Decision on Reopening entitled “Applicable Noise Limits” and commencing on page 15 with “[i]n addition, based on public comments received” and ending on the same page with “residences occupied by potentially sensitive individuals. (Petition at 19, [PSC REF#: 183159](#).)”

b. The portion of the section of the Final Decision on Reopening entitled “Applicable Noise Limits” and commencing on page 15 with “[i]n addition, in its filings regarding the reopened proceeding” and ending on page 17 with “agreement to the lower limit was only for nighttime hours and that is reasonable.”

c. The portion of the section of the Final Decision on Reopening entitled “Applicable Noise Limits” and commencing on page 17 with “[g]iven the uncertain causal relationship and the lack of record evidence” and ending on page 18 with “it is not necessary to impose a 40 dBA nighttime limit for that residence.”

d. The portion of the section of the Final Decision on Reopening entitled “Applicable Noise Limits” on page 18 stating “and an even more stringent standard in connection with certain identified residences.”

e. The portion of the section of the Final Decision on Reopening entitled “Highland’s Proposed Curtailment Plan” on page 20 stating “and the 40 dBA noise limit at the six sensitive residences.”

f. The portion of the section of the Final Decision on Reopening entitled “Highland’s Proposed Curtailment Plan” on page 31 stating “and the 40 dBA noise limit at the six sensitive residences.”

g. Order points 8 and 9 of the Final Decision on Reopening.

2. All references to the 95 percent compliance standard are removed, including the following:

a. The section of the Final Decision on Reopening entitled “Compliance Showing” and commencing on page 34 with “Wisconsin Admin. Code § PSC 128.14(3)(a) provides that [. . .]” and ending on page 35 with “this protocol is consistent with the Commission’s findings in this proceeding.”

b. Order point 16 of the Final Decision on Reopening.

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3. All other terms and conditions of the Final Decision on Reopening remain in effect and are not modified by this Final Decision on Remand.

4. This Final Decision on Remand is effective one day after the date of service.

5. Jurisdiction is retained.

Dated at Madison, Wisconsin, this 11th day of August, 2016.

By the Commission:

A handwritten signature in black ink, appearing to read "Sandra J. Paske". The signature is written in a cursive, flowing style.

Sandra J. Paske
Secretary to the Commission

SJP:ev:DL:01417586

See attached Notice of Rights

PUBLIC SERVICE COMMISSION OF WISCONSIN
610 North Whitney Way
P.O. Box 7854
Madison, Wisconsin 53707-7854

**NOTICE OF RIGHTS FOR REHEARING OR JUDICIAL REVIEW, THE
TIMES ALLOWED FOR EACH, AND THE IDENTIFICATION OF THE
PARTY TO BE NAMED AS RESPONDENT**

The following notice is served on you as part of the Commission's written decision. This general notice is for the purpose of ensuring compliance with Wis. Stat. § 227.48(2), and does not constitute a conclusion or admission that any particular party or person is necessarily aggrieved or that any particular decision or order is final or judicially reviewable.

PETITION FOR REHEARING

If this decision is an order following a contested case proceeding as defined in Wis. Stat. § 227.01(3), a person aggrieved by the decision has a right to petition the Commission for rehearing within 20 days of the date of service of this decision, as provided in Wis. Stat. § 227.49. The date of service is shown on the first page. If there is no date on the first page, the date of service is shown immediately above the signature line. The petition for rehearing must be filed with the Public Service Commission of Wisconsin and served on the parties. An appeal of this decision may also be taken directly to circuit court through the filing of a petition for judicial review. It is not necessary to first petition for rehearing.

PETITION FOR JUDICIAL REVIEW

A person aggrieved by this decision has a right to petition for judicial review as provided in Wis. Stat. § 227.53. In a contested case, the petition must be filed in circuit court and served upon the Public Service Commission of Wisconsin within 30 days of the date of service of this decision if there has been no petition for rehearing. If a timely petition for rehearing has been filed, the petition for judicial review must be filed within 30 days of the date of service of the order finally disposing of the petition for rehearing, or within 30 days after the final disposition of the petition for rehearing by operation of law pursuant to Wis. Stat. § 227.49(5), whichever is sooner. If an *untimely* petition for rehearing is filed, the 30-day period to petition for judicial review commences the date the Commission serves its original decision.²⁷ The Public Service Commission of Wisconsin must be named as respondent in the petition for judicial review.

If this decision is an order denying rehearing, a person aggrieved who wishes to appeal must seek judicial review rather than rehearing. A second petition for rehearing is not permitted.

Revised: March 27, 2013

²⁷ See *Currier v. Wisconsin Dep't of Revenue*, 2006 WI App 12, 288 Wis. 2d 693, 709 N.W.2d 520.

APPENDIX A

CONTACT LIST FOR SERVICE BY PARTIES

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APPENDIX B

STUDIES, REPORTS, ARTICLES AND OTHER REFERENCE MATERIALS ACCEPTED INTO THE RECORD

- Michaud et al. (1) 2016. Exposure to wind turbine noise: Perceptual responses and reported health effects. *J. Acoust. Soc. Am.* 139(3). [PSC REF#: 285640](#)
- Michaud et al. (2) 2016. Self-reported and measured stress related responses associated with exposure to wind turbine noise. *J. Acoust. Soc. Am.* 139(3). [PSC REF#: 285631](#)
- Michaud et al. (3) 2016. Personal and situational variables associated with wind turbine noise annoyance. *J. Acoust. Soc. Am.* 139(3). [PSC REF#: 285633](#)
- Voicescu et al. 2016. Estimating annoyance to calculated wind turbine shadow flicker is improved when variables associated with wind turbine noise exposure are considered. *J. Acoust. Soc. Am.* 139(3). [PSC REF#: 285635](#)
- Keith et al. (1) 2016. Wind turbine sound pressure level calculations at dwellings. *J. Acoust. Soc. Am.* 139(3). [PSC REF#: 285637](#)
- Keith et al. (2) 2016. Wind turbine sound power measurements. *J. Acoust. Soc. Am.* 139(3). [PSC REF#: 285639](#)
- Kageyama et al. 2016. Exposure-response relationship of wind turbine noise with self-reported symptoms of sleep and health problems: A nationwide socioacoustic survey in Japan. *Noise & Health* 18(81) 53-61. [PSC REF#: 285636](#)
- Blanes-Vidal and Schwartz, 2016. Wind turbines and idiopathic symptoms: The confounding effect of concurrent environmental exposures. *Neurotoxicology and Teratology* 55(2016) 50-57. [PSC REF#: 285632](#)
- Katinas et al. 2016. Analysis of the wind turbine noise emissions and impact on the environment. *Renewable and Sustainable Energy Reviews* 58, 825-831. [PSC REF#: 285638](#)
- Porsius et al. 2015. Nocebo responses to high-voltage power lines: Evidence from a prospective field study. *Science of the Total Environment* 543(2016) 432-438. [PSC REF#: 285634](#)
- Harding et al. 2008. Wind turbines, flicker, and photosensitive epilepsy: Characterizing the flashing that may precipitate seizures and optimizing guidelines to prevent them. *Epilepsia* 49(6), 1095-1098. [PSC REF#: 285293](#) at p. 28
- Schomer et al. 2015. A theory to explain some physiological effects of the infrasonic emissions at some wind farm sites. *J. Acoust. Soc. Am.* 137(3). [PSC REF#: 285293](#) at p. 32

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Salt and Lichtenhan, 2014. How does wind turbine noise affect people? Acoustics Today. [PSC REF #: 285293](#) at p. 19

Inagaki et al. 2015. Analysis of aerodynamic sound noise generated by a large-scaled wind turbine and its physiological evaluation. Int. J. Environ. Sci. Technol. 12:1933-1944. [PSC REF#: 288476](#)

Basner et al. 2015. ICBEN review of research on the biological effects of noise. Noise & Health. 17(75) 57-82. [PSC REF#: 288477](#)

Schomer and Fidell. 2016. Introductory remarks for special issue on wind turbine noise. J. Acoust. Soc. Am. 139(3). [PSC REF#: 288478](#)

McMurty and Krogh. 2014. Diagnostic criteria for adverse health effects in the environs of wind turbines. Journal of the Royal Society of Medicine Open; 5(10)1-5. [PSC REF#: 288479](#)

Mireille Oud, 2012. Low-frequency noise: a biophysical phenomenon. Conference Proceedings from Noise, Vibrations, Air quality, and Field & Building. [PSC REF#: 288480](#)

Keith Stelling, 2015. Infrasound, Low-frequency Noise, and Industrial Wind Turbines. Information report prepared for the Multi-municipal wind turbine working group, Ontario. [PSC REF#: 288481](#)

Kelley, 1987. A proposed metric for assessing the potential of community annoyance from wind turbine low-frequency noise emissions. Paper presented at the Windpower '87 Conference and Exposition. [PSC REF#: 288482](#)

Minnesota Department of Health 2009 Paper, "Public Health Impacts of Wind Turbines". [PSC REF#: 288483](#)

Ambrose and Rand, 2011. "The Bruce McPherson Infrasound and Low Frequency Noise Study". [PSC REF#: 288484](#)

Stephen Cooper, 2014. The results of an acoustic testing program: Cape Bridgewater Wind Farm (Report released publicly January 2015). [PSC REF#: 288501](#)

APPENDIX C

COMMENTS AND EXHIBITS ACCEPTED INTO THE RECORD

1. [PSC REF#: 284905](#) Comments of Highland Wind Farm, LLC
2. [PSC REF#: 284904](#) Forest Voice Comments on Order to Reopen, Notice, and Request for Comments
3. [PSC REF#: 285292](#) Town of Forest`s and Sensitive Residents` Comments on Order to Reopen (Re-Filed) (Confidential)
4. [PSC REF#: 285642](#) Clean Wisconsin's Comments (Re-Filed with Exhibits)
[PSC REF#: 285631](#) Ex.-CW-Cook-1
[PSC REF#: 285632](#) Ex.-CW-Cook-2
[PSC REF#: 285633](#) Ex.-CW-Cook-3
[PSC REF#: 285634](#) Ex.-CW-Cook-4
[PSC REF#: 285635](#) Ex.-CW-Cook-5
[PSC REF#: 285636](#) Ex.-CW-Cook-6
[PSC REF#: 285637](#) Ex.-CW-Cook-7
[PSC REF#: 285638](#) Ex.-CW-Cook-8
[PSC REF#: 285639](#) Ex.-CW-Cook-9
[PSC REF#: 285640](#) Ex.-CW-Cook-10
5. [PSC REF#: 284891](#) RENEW Wisconsin
6. [PSC REF#: 284895](#) Expert Statement of Richard James
7. [PSC REF#: 284742](#) Public Comment by Anne Johnston
8. [PSC REF#: 284817](#) Public Comment by Autumn Berndt
9. [PSC REF#: 284647](#) Public Comment by Brandon Sanderson
10. [PSC REF#: 284877](#) Public Comment by Brenda Salseg
11. [PSC REF#: 284582](#) Public Comment by Carl Johnson
12. [PSC REF#: 284820](#) Public Comment by Cindy Kuscienko
13. [PSC REF#: 284800](#) Public Comment by Courtney Fredrick
14. [PSC REF#: 284912](#) Public Comment by Craig M Paulson
15. [PSC REF#: 284801](#) Public Comment by Dale Logan
16. [PSC REF#: 284898](#) Public Comment by Dale and Sue Riba
17. [PSC REF#: 284400](#) Public Comment by David A Schmidt
18. [PSC REF#: 284885](#) Public Comment by Diana Ericson
19. [PSC REF#: 284259](#) Public Comment by Doris Schmidt
20. [PSC REF#: 284886](#) Public Comment by Gloria Logan
21. [PSC REF#: 284720](#) Public Comment by Ines Logan
22. [PSC REF#: 284724](#) Public Comment by Jaime P. Junker
23. [PSC REF#: 284794](#) Public Comment by Janet Scepurek
24. [PSC REF#: 284873](#) Public Comment by Jeff Ericson
25. [PSC REF#: 284917](#) Public Comment by Joy Keller

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26. [PSC REF#: 284738](#) Public Comment by Karen and Allen Wienke
27. [PSC REF#: 284808](#) Public Comment by Kenneth M. Bartz
28. [PSC REF#: 284868](#) Public Comment by Kenneth Sunday Sr
29. [PSC REF#: 284731](#) Public Comment by Laverne Hoitomt
30. [PSC REF#: 284828](#) Public Comment by Lorelei Swanepoel
31. [PSC REF#: 284401](#) Public Comment by Lorna Rogers
32. [PSC REF#: 284863](#) Public Comment by Luella Deboer
33. [PSC REF#: 284826](#) Public Comment by Marilyn Benson
34. [PSC REF#: 284851](#) Public Comment by Maureen O'Brien Junker
35. [PSC REF#: 284896](#) Public Comment by Nicole Miller
36. [PSC REF#: 284906](#) Public Comment by Nikki Sunday
37. [PSC REF#: 284815](#) Public Comment by Patty Sunday
38. [PSC REF#: 284832](#) Public Comment by Rick Steinberger
39. [PSC REF#: 284753](#) Public Comment by Robert Salseg
40. [PSC REF#: 283671](#) Public Comment by SC Panasuk
41. [PSC REF#: 284937](#) Public Comment by Scottie Ard
42. [PSC REF#: 284914](#) Public Comment by Tamara Linden
43. [PSC REF#: 284402](#) Public Comment by Thomas Johnston
44. [PSC REF#: 284804](#) Public Comment by Todd Ostberg
45. [PSC REF#: 284822](#) Public Comment by Anita Roberts
46. [PSC REF#: 284810](#) Public Comment by Barbara Vanden Boogart
47. [PSC REF#: 284404](#) Public Comment by Bernie & Cheryl Hagen
48. [PSC REF#: 284563](#) Public Comment by Darlene Mueller
49. [PSC REF#: 284791](#) Public Comment by Darrel Cappelle
50. [PSC REF#: 284480](#) Public Comment by Darren Ashley
51. [PSC REF#: 284314](#) Public Comment by David Enz
52. [PSC REF#: 284811](#) Public Comment by David R. Lawrence, MD
53. [PSC REF#: 284732](#) Public Comment by Elizabeth Ebertz
54. [PSC REF#: 284398](#) Public Comment by Erv Selk
55. [PSC REF#: 284562](#) Public Comment by Glen Robert Schwalbach P.E.
56. [PSC REF#: 284827](#) Public Comment by Henrik Svanholm
57. [PSC REF#: 284862](#) Public Comment by Jacki and Kevin Marlett
58. [PSC REF#: 284478](#) Public Comment by James M. Vanden Boogart
59. [PSC REF#: 284405](#) Public Comment by James Mueller
60. [PSC REF#: 284752](#) Public Comment by Jay J Tibbetts MD
61. [PSC REF#: 284831](#) Public Comment by Jeffrey Anthony
62. [PSC REF#: 284734](#) Public Comment by Joan Lagerman
63. [PSC REF#: 284581](#) Public Comment by Klaus Mauri Johansson
64. [PSC REF#: 284847](#) Public Comment by Kristi Rosenquist
65. [PSC REF#: 284880](#) Public Comment by Larry A. Lamont
66. [PSC REF#: 284739](#) Public Comment by Lilli-Ann Green

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67. [PSC REF#: 284567](#) Public Comment by Marco Bernardi
68. [PSC REF#: 284897](#) Public Comment by Marie McNamara
69. [PSC REF#: 284699](#) Public Comment by Mark & Julie Baugnet
70. [PSC REF#: 284620](#) Public Comment by Mark Cool
71. [PSC REF#: 284940](#) Public Comment by Mark Deslauriers
72. [PSC REF#: 284403](#) Public Comment by Mary Brandt
73. [PSC REF#: 284936](#) Public Comment by Mary Hartman
74. [PSC REF#: 284818](#) Public Comment by Patricia Finder-Stone, RN, MS
75. [PSC REF#: 284566](#) Public Comment by Sandra Johnson
76. [PSC REF#: 284725](#) Public Comment by Sarah Laurie, CEO Waubra Foundation
77. [PSC REF#: 284900](#) Public Comment by Sherri Lambert
78. [PSC REF#: 284913](#) Public Comment by State Rep. Andre Jacque
79. [PSC REF#: 284780](#) Public Comment by Steve Deslauriers
80. [PSC REF#: 284813](#) Public Comment by Susan Ashley
81. [PSC REF#: 284399](#) Public Comment by Tammy McKenzie
82. [PSC REF#: 284927](#) Public Comment by Tim Lowry