OHIO POWER SITING BOARD
STAKEHOLDER COLLABORATIVE ISSUES
SUBMISSION BY THE MID-ATLANTIC RENEWABLE ENERGY COALITION
February 11, 2016, Case No. 12-1981-GE-BRO

The Mid-Atlantic Renewable Energy Coalition submits these comments on behalf of Apex Clean Energy, EDP Renewables, EverPower Wind Holdings, Inc., Iberdrola Renewables, LLC, Windlab Developments, USA, Ltd; collectively "MAREC."

This information will follow the items set forth in the Second Finding and Order , Finding 18, issued on November 12, 2015 in Case No. 12-1981-GE-BRO.

a) UNU states that reasonable regulations should be outlined in the rules regarding topics such as wildlife regulation, ice throw, reconstruction, and enlargement.
   - *The current rules cover wildlife regulation, ice throw.*
   - *Applicants are required to evaluate and describe potential impacts and plans to minimize, if warranted.*
   - *The OPSB Staff consults with both the Ohio Department of Natural Resources and U.S. Fish and Wildlife Service before recommending approval of a project*
   - *UNU's suggestion that the rules as currently drafted do not constitute "reasonable regulations" are unfounded and unsupported.*

b) UNU asks that applicants be required to express parcel information, inclusive of modeling inputs, in a manner that can be easily interpreted by members of the public.
   - *Developers are required to submit an enormous amount of detailed data, and do appreciate the challenges of interpreting all of that data. Not knowing particular interests of specific parties, it is extremely difficult to provide data in a form that is easily accessible to all parties for all purposes.*
   - *Developers are generally very responsive to specific requests for information, and can provide the specific data formally in response to data requests, or informally in response to general inquiries.*
   - *MAREC believes the rules are currently constituted to provide ample information as well as a process whereby more specific data can be obtained by interested parties.*

c) **Ohio Adm. Code 4996-4-08(A)(1)(c)** requires an applicant to provide the generation equipment manufacturer's safety standards, including a complete copy of the manufacturers' safety manual or similar document and any recommended setbacks.

   UNU proposes this rule be expanded to include not only manufacturer recommended setbacks, but also other manufacturer recommendations regarding safety, health, or turbine siting.

   - *The rules require the submission of manufacturers' safety manuals.*
   - *The proposal adds the requirement that any setback recommendations from the manufacturer also be provided. To the extent recommendations on safety, health or turbine siting are available, we believe that would be included in what would be provided in the current rule.*

- *MAREC believes that the current rule allows for consideration of all turbine manufacturer recommendations and standards, should they exist, as requested by UNU. No revisions to the current rule are warranted.*

d) **Ohio Adm. Code 4906-4-08(A)(3)(b)(i)** requires an applicant to describe the operational noise levels expected at the nearest property boundary and cumulative operational noise levels at the property boundary for each nonparticipating property adjacent to or within the project area under both day and nighttime operations.

UNU proposes that the noise level of wind-powered facilities not exceed five decibels (dB) above the background sound level at nonparticipating properties and measurements should be taken at nonparticipating properties, and such measurements would be based on the L90 statistical standard.

In addition, UNU advocates that nonparticipating residents and landowners should not experience noise levels greater than 35 dBA and 50 dBC, and these standards should apply at property lines of nonparticipating residents and not merely neighboring residents.

UNU asserts that, to properly assess the cumulative impact of multiple facilities, the impact from both existing and potentially existing wind-powered facilities should be considered. According to UNU, this suggestion should apply to noise impacts, visual impacts, shadow flicker, and other related consequences.

- *Wind turbine sound issues have long been debated. The issues have been presented and minutely examined on the project, local, state, federal and international levels. Extensive studies have been and are being carried out and the OPSB Board has access to all of this information. In particular, recent large studies have been completed that continue to support the same basic conclusion: there is no evidence of a link between wind turbine noise and physical illness or chronic conditions. For the Board's consideration, we provide the following documents:*
  1) *In 2014, Health Canada and Statistics Canada published the most comprehensive multi-disciplinary field study to-date[1]. The study found no connection between wind turbine noise and an array of studied health conditions.*
     This report was published in a peer-reviewed journal.

  2) *In 2014, the Massachusetts Institute of Technology completed an extensive review of the scientific literature on wind turbine sound and health. The report found that among the varied and complex factors that are associated with annoyance, sound from wind turbines plays a minor role[2].*
     This report was published in a peer-reviewed journal

[1] http://www.hc-sc.gc.ca/ewh-semt/noise-bruit/turbine-eoliennes/summary-resume-eng.php
[2] http://journals.lww.com/joem/Fulltext/2014/11000/Wind_Turbines_and_Health__A_Critical_Review_of_the.9.aspx

3) *In January 2016, Health Canada published an article on the effects of wind turbine noise on sleep. The study found no support for an association between exposure to wind turbine noise up to 46 dBA and an increased prevalence of disturbed sleep*[3].
This report was published in a peer-reviewed journal.

4) *The American Wind Energy Association (AWEA) recently submitted a summary of wind turbine noise related research to the Brown County Health Department in Wisconsin. That summary, with a host of study references, is attached.*

- *Shadow flicker, visual impacts, and other siting considerations are addressed in the current application process and considered by the OPSB Staff.*
- *The track record to-date of the State's operating wind farms suggests OPSB Staff has capably regulated this matter.*
- *The OPSB has evaluated sound issues in each case. For all generation facilities (regardless of type), the OPSB evaluates the sound based on a number of factors and as a result a specific rule on sound standards singling out wind energy from other sources is unnecessary and unwarranted.*
- *Selecting often remote and unoccupied property lines as measuring points for a significant siting criterion is unwarranted. As with any form of land-use on an adjacent property, the property owner should discuss concerns of future uses on their land with a developer on the adjacent parcel and determine if there is a need and opportunity to make adjustments to avoid conflicts.*
- *Cumulative noise modeling due to multiple wind farms is appropriate, with a common-sense seniority approach for facilities, and is already required under the existing rules. For example, the Buckeye II was proposed to be located immediately adjacent to the Buckeye Wind Farm. Developers presented, as part of the application, a report that included the modeled sound levels throughout the project that included sound emanating from BOTH Buckeye and Buckeye II turbines.*
- *The need for a dBC standard has also been considered in the context of OPSB certificate applications, and – considering extensive expert input and analysis – the Board has repeatedly found that restrictions on dBC levels are not warranted.*
- *In particular, the OPSB should not adopt a standard that has been rejected by the OPSB as well as the Supreme Court of Ohio on multiple previous occasions.*
- *Shadow flicker projections and experience demonstrate that 10x rotor diameter is an accurate limit for flicker projection and with wind industry best practices of avoiding competitive turbines often by well more than 10x rotor diameter, cumulative impact assessments for shadow flicker are not necessary.*

[3] http://journalsleep.org/ViewAbstract.aspx?pid=30394

- *Because turbine spacing and concentration is a function of land constraints (including setbacks) and technical optimization (designers need to avoid "wake" effects), cumulative impact evaluations are largely related to the scale of impact, rather than the type of impact. Like shadow flicker and sound, cumulative visual impacts are also readily available and are provided under the current rules (again, see Buckeye II case).*
- *We believe that the adopted rule as currently written is adequate for this section.*

e) **Ohio Adm. Code 4906-4-08(B)(l)(c)** requires an applicant to provide results of a literature survey of plant and animal life within at least one-fourth mile of the project area boundary, including results of aquatic and terrestrial plant and animal species that are of commercial or recreational value, or species that are designated as endangered or threatened.

UNU argues that this would be inadequate for mobile endangered species inclusive of the Indiana bat that may move in and out of the area; therefore, a broader range for a literature survey should be adopted.

- *With respect to mobile species, the literature search does consider the mobility of species relative to a given project area, whether the search area includes suitable habitat and is within the ranges of threatened or endangered species. In these instances, the literature search adequately alerts developers and agencies about the potential need for additional surveys and studies.*
- *Wind energy development is subject to numerous and extensive federal and state wildlife regulations, which are administered by the U.S. Fish and Wildlife Service and Ohio Department of Natural Resources.*
- *Applicants are required to comply with the wildlife survey standards set by these agencies, present the results of studies, and coordinate with them throughout the development process. These studies and the comments by the state and federal agencies are submitted to the OPSB for consideration during the permitting process.*
- *These agencies have the expertise which the OPSB relies on and incorporates in its investigation and it is unnecessary to add additional specificity to the regulations when the Staff presently consults these agencies.*
- *Further, the Ohio Department of Natural Resources is represented on the OPSB as a Board member.*
- *The foregoing aside, duplicative regulation over the same subject matter is a violation of the Governor's Common Sense Initiative.*
- *We believe that the adopted rule as currently written is adequate for this section.*

f) **Ohio Adm. Code 4906-4-08(B)(1)(d)** requires an applicant to provide results of field surveys of plant and animal species identified in the literature survey.

UNU proposes that these field studies be required for all endangered species identified in the

survey or when the applicant has knowledge of an endangered species within a specified distance of the project area.

- *The comments enumerated above with respect to Ohio Adm. Code 4906-4-08 (B) (1) (c) concerning the expertise of U.S. Fish and Wildlife Service and Ohio Department of Natural Resources and the Common Sense Initiative apply to this issue as well.*
- *We believe that the adopted rule as currently written is adequate for this section.*

g) **Ohio Adm. Code 4906-4-08(B)(1)(e)** requires an applicant to provide a summary of any additional studies that have been made by or for the applicant addressing the ecological impact of the proposed facility.

UNU proposes the applicant be required to submit copies of all studies that the developer has knowledge of and access to even if they were not completed specifically for the developer.

- *The OPSB rules require that the applicant provide all studies they have conducted. To the extent that applicants do not provide studies or data that support the application, the OPSB Staff can recommend denial.*
- *This recommendation is overly broad and would not add to information about the specific application.*
- *This position could extend to studies about the positive environmental benefits of a wind farm including, for example, documentation of the environmental risks of CO_2 and other pollutants, which are voluminous.*
- *"All" studies would be unreasonably voluminous and practicably impossible to amass.*
- *Furthermore, there is no objective way to determine when "all" studies in existence have been collected and submitted.*
- *This suggestion improperly treats all studies, even outdated, irrelevant, or otherwise inaccurate as meaningful.*
- *We believe that the adopted rule as currently written is adequate for this section.*

h) **Ohio Adm. Code 4906-4-08(B)(2)(b)(vii)** requires an applicant to provide avoidance measures for major species and their habitat.

UNU proposes that the term "major species" be defined in the rules to, at a minimum; include species of commercial or recreational value or an endangered or threatened species.

- *The comments enumerated above with respect to Ohio Adm. Code 4906-4-08 (B) (1) (c) concerning the expertise of U.S. Fish and Wildlife and Ohio Department of Natural Resources and the Common Sense Initiative apply to this issue as well.*
- *The Ohio Department of Natural Resources has a rule pertaining to designation of species and UNU should not be adding new qualifiers to the Ohio Department of Natural Resources' designations (OAC Rule 1501:18-1-02).*

- *We believe that the adopted rule as currently written is adequate for this section.*

i) **Ohio Adm. Code 4906-4-08(B)(3)(c)** requires an applicant to describe any plans for post construction monitoring of wildlife impacts.

UNU proposes an applicant be required to specify measures for mitigation and construction avoidance regarding these species.

In addition, UNU proposes that mitigation be mandatory and all monitoring be done by state employees or third-party contractors working on behalf of the OPSB with the costs to be paid by the certificate holder.

- *Existing rules require applicants to set forth mitigation and avoidance measures in their applications.*
- *Post-construction avoidance and mitigation are governed by the requirements of the Ohio Department of Natural Resources.*
- *The comments enumerated above with respect to Ohio Adm. Code 4906-4-08 (B) (1) (c) concerning the expertise of U.S. Fish and Wildlife and the Ohio Department of Natural Resources apply to this issue as well.*
- *U.S. Fish and Wildlife Service and the Ohio Department of Natural Resources review all studies by 3rd party consultants employed by developers or applicants, and comment on them. UNU suggests no valid reason to change this practice, and to do so for wind energy and no other energy source or form of development would be arbitrary and capricious.*
- *The OPSB regularly requires the credentials of environmental specialists in its conditions to a certificate in order to assure competence and objectivity. This practice addresses UNU's concerns.*
- *We believe that the adopted rule as currently written is adequate for this section.*

j) **Ohio Adm. Code 4906-4-08(C)(1)(a)** requires an applicant to provide a map of at least 1:24,000 scale showing land use, structures, and incorporated areas and population centers within one-mile of the project area boundary.

UNU notes that the new rule requires submission of a map with information inclusive of prevailing land use; however, the existing rule requires a five mile mapping area. UNU requests that the five mile requirement of the existing rule be retained.

- *The five mile requirement in the previous rule was untested when it was implemented. It has become apparent through the implementation of the rule that showing the prevailing land use and other items is not necessary for a five mile radius from a wind farm.*
- *For the reason noted previously, MAREC agrees with the adopted rule.*

k) **Ohio Adm. Code 4906-4-08(C)(l)(b)(i)** requires an applicant to provide, for the types of structures identified on the map in paragraph (C)(1)(a) of this rule, a table showing all structures within 1,000 feet of the generation equipment or wind turbine, the distance between the structure and the equipment or nearest wind turbine.

UNU asserts the distance to nearby structures is no longer relevant; rather, the rule should require specific distances from turbines to adjacent properties and the nearest public road.

- *The information UNU requests is readily available via the many scaled maps included in applications.*
- *We believe that the adopted rule as currently written is adequate for this section.*

l) **Ohio Adm. Code 4906-4-08(C)(2)** requires an applicant to provide a map of at least 1:24,000 scale showing the proposed facility, habitable residences, and parcel boundaries of all parcels within a half-mile of the project area. The map is to indicate, for each parcel, whether the parcel is being leased by the applicant for the proposed facility. In addition, it is to include the setbacks for wind turbines in relation to property lines, habitable residential structures, electric transmission lines, gas pipelines, and state and federal highways.

UNU supports the proposal to require applicants to map all parcels leased by the applicant for the facility. In addition, UNU requests that the applicant indicate all land that it has leased for wind development given that wind projects develop in stages and having knowledge of all leased properties for wind development would assist in assessing any potential impact.

EverPower states that, because the location of many low pressure distribution systems are generally not available from utilities and mapping these pipelines would be extremely difficult, the gas pipeline setback should be modified.

At a minimum, EverPower states the rule should be amended so that "gas pipelines" is changed to "high pressure gas transmission pipelines," due to the difficulty in mapping the gas systems.

- *UNU's suggestion is overly broad and is not relevant because additional leased parcels outside of a wind farm application are not up for consideration for any wind energy development at that time and thus the suggestion should not be considered.*
- *MAREC agrees that the term "gas pipeline" should be modified to state "high pressure gas transmission pipelines" for the reasons set forth in EverPower's comments.*

m) **Ohio Adm. Code 4906-4-08(C)(2)(c)** requires an applicant to include on a map the setbacks for wind turbines. The setbacks shall be no less than 1.1 times the turbine height to electric transmission lines, gas pipelines, hazardous liquid pipelines, or state or federal highways. EverPower asserts that mandatory setbacks for gas pipelines and hazardous liquid pipelines are not necessary due to the extremely low likelihood that a turbine collapse could rupture a line.

If this is not removed, EverPower suggests that "gas pipeline" at least be changed to "gas transmission pipelines."

UNU counters EverPower's assertion that the General Assembly has not granted the Board "express authority" to establish regulatory setbacks from pipelines, transmission lines, and roadways, stating R.C. 4906.20(B)(2) clearly allows the Board to enact reasonable rules regarding wind turbines.

- *MAREC agrees that the term "gas pipeline" should be modified to state "high pressure gas transmission pipelines" for the reasons set forth in EverPower's comments.*

n) **Ohio Adm. Code 4906-4-08(C)(2)(d)** provides that minimum setbacks from property lines and residences may be waived in the event that all owners of property adjacent to the turbine agree to such waiver.

Greenwich Neighbors United (GNU) believes the proposed rules, which assert a wind farm developer can avoid the setback requirement by securing a waiver from property owners adjacent to the turbine, is not in alignment with the both the letter and spirit of Ohio law. According to GNU, the rules do not satisfy HB 483 and R.C. 4906.20(B)(2)(c), which requires the Board establish the procedure by which a proper waiver may be secured.

AWEA and Greenwich counter the notion that HB 483 modified the setback waiver provision of R.C. 4906.20(B)(2)(c). They assert this rulemaking is limited to revisions made to Ohio Adm. Code 4906-4-08 and that there was no proposed revision to the setback waiver rule of Ohio Adm. Code 4906-4-08(C)(2)(d).

AWEA and Greenwich also contend that GNU does not look at R.C. 4906.20(B)(2)(c) as a "harmonious whole" and that GNU's interpretation would only be possible if the statute was read in a vacuum.

AWEA and Greenwich believe the proper interpretation is "minimum setbacks from property lines and residences may be waived in the event that all owners of property adjacent to the particular turbine agree to such waiver." In addition, they assert the term wind farm property refers to a particular property and not the entire wind farm footprint.

AWEA and Greenwich believe the Board's interpretation of the waiver provision is reasonable, given it protects rights of both landowners who want turbines and adjacent landowners who may not.

- *MAREC agrees with AWEA and Greenwich on this provision as stated in their Reply Comments submitted on February 15, 2015.*
- *The exact placement of a wind turbine can only be determined after complying with myriad siting criteria and most specifically, compliance with setback requirements from features like public roads, property lines of non-participating properties and, as described below, features such as high pressure gas transmission lines and electric transmission lines. To the extent a wind turbine is to be placed within a specific setback "zone" from a specific project area feature, for example, a parcel of*

land, the holder of the property rights of that specific parcel must consent to its placement, or grant a waiver. If such a waiver is granted, the parcel is said to be involved with the placement of that turbine. If the turbine is not within the setback zone of adjacent parcels, they are not involved.

- *Property owners who are adjacent to the turbine but whose properties are outside of the setback zone are not involved.*
- *Assuming the setbacks are observed, there is no setback for the adjacent property owner to waive.*
- *Only involved property owners with setbacks that are being "infringed" should be required to sign or approve waivers. Adjacent and "un-infringed" or un-involved landowners do not need to agree to a waiver given by another property owner.*
- *Requiring a developer to obtain agreements for waivers from uninvolved property owners offends long standing notions of contract law and makes for poor public policy by allowing uninvolved property owners to interfere with other parties' rights to contract.*
- *Property owners who are uninvolved with a wind turbine's placement should not interfere with the ability of other landowners to freely make decisions affecting their own lands, particularly when all other aspects of the placement of those turbines are carefully considered as described above and elsewhere to take into account neighboring, uninvolved landowners.*
- *Wind developers and property owners have a right to enter into contracts, including the right of a landowner to waive the setback distances applicable to his or her own property without receiving permission from uninvolved adjacent property owners.*
- *Allowing adjacent property owners who are not within the setback distance impedes this right.*
- *We believe that the adopted rule as currently written is adequate for this section. However, in order to clarify the regulatory intent and the property rights of landowners, AWEA would support a change that would state that minimum setbacks from property lines and residences may be waived in the event that all <u>involved</u> owners of property adjacent to the turbine agree to such waiver.*

o) **Ohio Adm. Code 4906-4-08(D)(4)** requires an applicant to evaluate the visual impact of the proposed facility within at least a five-mile radius from the project area.

UNU notes that the rule does not provide recommendations for the number of vantage points for visual simulations. Thus, UNU proposes that north/south/east/west views be required for at least one location per square mile within one mile of the proposed project area.

- *MAREC believes the adopted rule is appropriate and is consistent with the old rule.*
- *To the extent that an applicant submits an inadequate visual impact study, the OPSB Staff has the ability to demand a better study, and it has used this authority in the past.*

- *Analyses of the visual impacts are performed by 3rd party professionals that employ commonly accepted methodologies. The UNU proposal is not based on any stated deficiency to these approaches and should be rejected.*

p) **Ohio Adm. Code 4906-4-08(E)(2)(c)(ii)** requires an applicant to provide a description of mitigation procedures to be utilized by the applicant during construction, operation, and maintenance to reduce impacts to agricultural land, structures, and practices that will achieve timely repair of damaged field tile systems to at least original conditions, at the applicant's expense.

This rule mandates repair of damaged field tile systems at the "applicant's expense" and EverPower acknowledges that the applicant should have this responsibility.

However, due to a variety of potential landowner and lease arrangements that may result in the landowner agreeing to do the repair, EverPower proposes that "applicant's expense" be changed to "in a manner agreeable to the landowner."

UNU disagrees with EverPower's recommendation, stating that there is no guarantee that a repair agreement between a wind development and landowner would protect those interests of neighboring landowners whose land may be negatively impacted by wind power.

- *MAREC agrees with EverPower's comments.*
- *UNU cannot show that there is a need for a drain tile "fix" that affects neighboring properties. Real world experience has not revealed the necessity for additional regulation.*

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Summary: Comments of Mid-Atlantic Renewable Energy Coalition electronically filed by Teresa Orahood on behalf of Sally Bloomfield