

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA**

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**IN THE MATTER OF THE  
APPLICATION BY DEUEL HARVEST  
WIND ENERGY, LLC FOR A PERMIT  
OF A WIND ENERGY FACILITY AND  
A 345-kV TRANSMISSION LINE IN  
DEUEL COUNTY**

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**INTERVENOR CHRISTINA KILBY'S  
BRIEF IN OPPOSITION TO DEUEL  
HARVEST'S MOTION TO EXCLUDE  
TESTIMONY AND/OR EXHIBITS OF  
INTERVENORS**

**EL18-053**

**I. INTRODUCTION**

Deuel Harvest seeks to exclude evidence that is relevant, probative, and competent. The Commission may allow this evidence under SDCL 1-26-19 and the Residual Exception Rule. Because this evidence will assist the Commission in determining whether Deuel Harvest will meet its burden under SDCL 49-41B-22, and because the Commission is able to determine the weight to be given to any evidence, I ask the Commission deny Deuel Harvest's Motion to Exclude.

**II. THE TESTIMONY AND EXHIBITS DEUEL HARVEST SEEKS TO EXCLUDE ARE**

**ADMISSABLE**

SDCL 1-26-19. Rules of evidence in contested cases. In contested cases:

(1) Irrelevant, incompetent, immaterial, or unduly repetitious evidence shall be excluded. The rules of evidence as applied under statutory provisions and in the trial of civil cases in the circuit courts of this state, or as may be provided in statutes relating to the specific agency, shall be followed. When necessary to ascertain facts not reasonably susceptible of proof under those rules, evidence not otherwise admissible thereunder may be admitted except where precluded by statute if it is of a type commonly relied upon by reasonably prudent persons in the conduct of their affairs. Agencies shall give effect to the rules of privilege recognized by law. Objections to evidentiary

offers may be made and shall be noted in the record. Subject to these requirements, when a hearing will be expedited and the interests of the parties will not be prejudiced substantially, any part of the evidence may be received in written form;

(2) A party may conduct cross-examinations required for a full and true disclosure of the facts;

Numerous courts have recognized that in administrative proceedings, the technical application of the rules of evidence is not required. *Daily v. City of Sioux Falls*, 2011 S.D. 48, at 29, 802 N.W.2d 905, 917 (citations omitted). And evidence that otherwise meets the definition of hearsay may also be admitted under SDCL 19-19-807, the Residual Exception, if it meets the following requirements:

- (1) The statement has equivalent circumstantial guarantees of trustworthiness;
- (2) It is offered as evidence of a material fact;
- (3) It is more probative on the point for which it is offered than any other evidence that the proponent can obtain through reasonable efforts, and
- (4) Admitting it will best serve the purposes of these rules and the interests of justice.<sup>1</sup>

The following exhibits and testimony can and should be admitted.

**A. Kilby Ex. 1**

Wind Turbine Noise and Sleep: Pilot Studies on Influence of Noise Characteristics (2018), Morsing et. al, is published in International Journal of Environmental Research and Public Health 15(11): 2573, Nov. 2018. This is a peer reviewed journal. The information contained within this article therefor has a circumstantial guarantee of trustworthiness. It is

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<sup>1</sup> **(b) Notice.** The statement is admissible only if, before the trial or hearing, the proponent gives an adverse party reasonable notice of the intent to offer the statement and its particulars, including the declarant's name and address, so that the party has a fair opportunity to meet it.

being offered to show effects of wind turbine noise on sleep which is relevant to Deuel Harvest's burden of proving the Project will not substantially impair the health, safety, or welfare of the inhabitants.

**B. Kilby Ex. 2**

Kilby Ex. 2, A Cooperative Measurement Survey and Analysis of Low Frequency and Infrasound at the Shirley Wind Farm in Brown County, WI (2012) is admissible under the Residual Exception Rule. This is co-authored by David Hessler, expert witness for Staff. It therefore has equivalent circumstantial guarantees of trustworthiness. This is offered as evidence of the effects of infrasound, which is a material issue. It is more probative on the point for which it is offered than any other evidence that I can obtain through reasonable efforts, and admitting it will advance the Commission's inquiry and expedite the hearing.

**C. Kilby Ex. 3**

Altered Corticol and Subcorticol Connectivity Due to Infrasound Administered Near the Hearing Threshold (2017), Weichenberger et. al., is admissible under the Residual Exception rule. This article was peer reviewed and published in the journal PLOS ONE. The authors declared that no competing interests exist. This is relatively new evidence probative to the issue of the effect of infrasound on the body.

**D. Kilby Testimony**

Portions of Testimony of Intervenor Christina Kilby that Deuel Harvest seeks to exclude on pages 3-6, cite to Fritz van den Berg and Irene van Kamp, (Ex. A12-4 p 1, 3, 7, and 21) and to the Wind Turbine Health Impact Study: Report of Independent Expert Panel, (Ex. A11-2<sup>2</sup>).

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<sup>2</sup> The citation to Ex. A11-4 should have been to Ex. A11-2.

These are direct quotes from submissions of Deuel Harvest's own expert witnesses and according to SDCL 19-19-801(d)(2)(B) do not fall under the definition of hearsay. As submission of Deuel Harvest's expert witnesses, Dr. Roberts, and Dr. Ellenbogen and is therefore a statement in which Deuel Harvest has manifested an adoption or belief. In addition, even if this testimony is considered hearsay, it falls under the Residual Exception to Hearsay rule. Deuel Harvest cannot claim the source is not trustworthy since it was submitted and relied on by Deuel Harvest's own expert witness. The portions I quote are relevant to whether the Project will substantially impair the health, safety, or welfare of the inhabitants.

Not only did Dr. Ellenbogen submit Exhibit A11-2, but he was also on the panel that created the report. I doubt Dr. Ellenbogen would now claim that only those portions that appear to be in Deuel Harvest's favor are accurate, and all others are not. Also, if further context is required, the Commission can refer to the full exhibit submitted on behalf of Deuel Harvest.

E. **Kilby Exhibit R3**<sup>3</sup>

Schmidt JH, Klokke M (2014) Health Effects Related to Wind Turbine Noise Exposure. A Systematic Review. PLoS ONE 9(12); e114183. This article was published in the journal PLoS ONE. It also appears in Tethys, an online information resource supported by the U.S. Department of Energy. "The U.S. Department of Energy partnered with the International Energy Agency's Ocean Energy Systems initiative to create Tethys, a database and knowledge management system that provides access to information and research about the potential environmental effects of offshore wind and marine and hydrokinetic development." ([www.energy.gov/eere/water/marine-and-hydrokinetic-technology-resources](http://www.energy.gov/eere/water/marine-and-hydrokinetic-technology-resources).)"

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<sup>3</sup> I am withdrawing Kilby Exhibit R2 at this time.

**F. Kilby Exhibit R4**

Comments on the Cooper Study at the Cape Bridgewater Wind Farm and Wind Turbine Infrasound by George Hessler, 3/9/2015, consists of comments written by George Hessler, associate of Staff's expert witness, David Hessler.

**G. Kilby Exhibit R5**

Paul D. Schomer, Review of this Study and Where It Is Leading: The Results of an Acoustic Testing Program, Cape Bridgewater Wind Farm Prepared for Energy Pacific by Steve Cooper, The Acoustic Group. ([waubrafoundation.org.au/wp-content/uploads/2015/02/Schomer-P.-Review-of-Steven-Coopers-Cape-Bridgewater-Report.pdf](http://waubrafoundation.org.au/wp-content/uploads/2015/02/Schomer-P.-Review-of-Steven-Coopers-Cape-Bridgewater-Report.pdf)) Mr. Schomer Ph. D., P.E. Member, Board Certified Institute of Noise Control Engineering who also co-authored Kilby Ex. 2, A Cooperative Survey and Analysis of Low Frequency and Infrasound at the Shirley Wind Farm in Brown County, WI (2012.) This is a review of a report, The Results of an Acoustic Testing Program – Cape Bridgewater Wind Farm done by Steven Cooper, hired by Pacific Hydro to study Pacific Hydro's Cape Bridgewater Wind Farm. ([pacifichydro.com.au/english/our-communities/communities/cape-bridgewater-acoustic-study-report/?language=en](http://pacifichydro.com.au/english/our-communities/communities/cape-bridgewater-acoustic-study-report/?language=en))

**H. Kilby Response to Staff's Data Requests, Att. 3**

Marcillo, O., S. Arrowsmith, P. Blom, and K. Jones (2015), On infrasound generated by wind farms and its propagation in low-altitude tropospheric waveguides, J. Geophys. Res. Atmos., 120, 9855–9868, doi:10.1002/2014JD022821, Abstract)<sup>4</sup> The author, Omar Eduardo

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<sup>4</sup> This article was submitted with Christina Kilby's Responses to Staff's Second Set of Data Requests and incorporated into Christina Kilby's Rebuttal Testimony by reference.

Marcillo is a Staff Scientist at the Los Alamos National Laboratory. This article was published in the Journal of Geophysical Research-Atmospheres, Vol.120, iss.19, October 16, 2015. This article is directly relevant to the distance infrasound can travel from a wind project and is therefore relevant to the potential threat to the health, safety or welfare of the inhabitants within the area.

**I. Kilby Response to Staff's DR 2, Att. 1**

Kenneth Hume et. al, Effects of Environmental Noise on Sleep, Noise & Health, November-December 2012, Volume 14:61, 297-30, p. 297<sup>5</sup> is a literature review summarizing the three previous year's research on the effects of environmental noise on sleep. This article was published in Noise and Health, a Bi-monthly Interdisciplinary International Journal. This article provides probative value to whether the Project will substantially impair the health, safety, or welfare of the inhabitants.

All of this evidence possesses equivalent guarantees of trustworthiness as evidence that falls under other exceptions to the rule against hearsay. Deuel Harvests has given no reason the testimony discussed above should be excluded. This evidence is relevant and probative and can assist the Commission in determining the true effects of the Project on Deuel County. This is the type of information that people typically rely on when seeking information. Any potential issues regarding the reliability of these exhibits can be addressed at the hearing. Allowing this testimony in written form now will expedite the hearing. The Commission is able

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<sup>5</sup> This article was submitted with Christina Kilby's Responses to Staff's Second Set of Data Requests and incorporated into Christina Kilby's Rebuttal Testimony by reference.

to determine the level of probative value and credibility to give the evidence. Intervenors are unable to compete with Deuel Harvest's ability to hire expert witnesses to testify on all of the material issues. The evidence Deuel Harvest seeks to exclude from the Commission's consideration is more probative than other evidence I am able to obtain through reasonable efforts.

### **CONCLUSION**

For these reasons, and in the interest of a more complete picture of current evidence available on the subjects, I request the Commission not exclude my exhibits and testimony.

Dated: April 8, 2019

/S/ Christina Kilby

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