

Public Utilities Commission
Capitol Building, 1st floor
500 E. Capitol Ave.
Pierre, SD 57501-5070

RE: Docket EL17-055

Madam Chairperson and South Dakota Public Utilities Commissioners:

I am writing to provide comments and share my concerns with regard to Crocker Wind Farm, LLC's (Crocker) proposal to erect 14 industrial wind turbines, associated infrastructure, and 14 transmission poles within a Service grassland easement near Clark, SD.

Crocker's proposed project on Service grassland easement lands is located within a region of the country including a natural rise in elevation as a result of glaciers known as the Prairie Coteau. The Nature Conservancy has dubbed it "One of the last great grasslands in the United States" in part due to its abundant wildlife and Northern Tallgrass prairie. What's concerning is The Nature Conservancy recognizes the invasion of "Wind Power Development" as one of its Major Threats.

<https://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/southdakota/the-prairie-coteau-landscape.xml>

Crocker has stated the project may permanently impact up to 15.1 grassland easement acres. Included are "before and after" infrared satellite imagery maps (LandSat imagery) of 4 industrial wind turbines erected on prairie lands in Hyde County that show a much more significant area impacted on a "per turbine" basis. EXHIBIT 1. The yellow to red colors represent a reduction in photosynthesis. As you can see, the grass and plant health negatively impacted covers approximately 20-25 acres on a 75 acre parcel even 13 years later. This is six-fold compared to what Crocker is projecting. Besides access road infrastructure's "edge effect" on crop production and severe compaction issues, there is a negative impact on grass areas where turbulence from the turbine channels dryer air down, moist air upward resulting in a drying effect to occur. To support the "drying effect" and negative impact industrial wind turbines can create on soil grass and cropland, I have cited the following article: {Kevin A. Adkins & Adrian Sescu (2017) Observations of relative humidity in the near-wake of a wind turbine using an instrumented unmanned aerial system, International Journal of Green Energy, 14:10, 845-860, DOI: 10.1080/15435075.2017.1334661}

This 2017 study was conducted by Embry-Riddle Aeronautics University utilizing a drone by Kevin Adkins, assistant professor of aeronautical science and director of Embry-Riddle's Gaetz Aerospace Institute. He flew a drone into wind turbine wakes to measure differences in relative humidity levels. He and his colleague Adrian Sescu of Mississippi State University published their research findings in the International Journal of Green Energy cited in the previous paragraph.

A group consisting of representatives from Iowa DNR's Wildlife Bureau and Energy Section, US Fish & Wildlife Service, several non-governmental conservation organizations, energy companies, the Iowa Renewable Energy Association and other interested parties put together siting recommendations with regard to industrial wind projects and their distance from sensitive wildlife and plant populations. EXHIBIT 3. Significant findings published include:

* "Avoid placing turbines at locations where any species of fish, wildlife or plants protected under the federal Endangered Species Act have been documented."

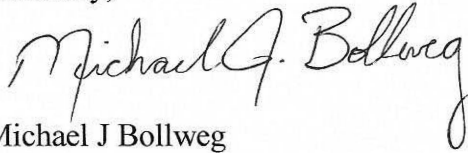
* "Avoid placing turbines in or near recognized bird concentration areas or migration pathways, including lakes, wetlands, forests, river valleys, ridge tops or bluff tops, large grasslands, known bird roosting areas, public wildlife areas, parks, and areas with frequent incidence of fog mist or low clouds."

* "Avoid placement of turbines in or near areas where highly "area-sensitive" wildlife species, such as prairie-chickens, are known. Area-sensitive species require expansive, unfragmented habitat."

I encourage you to avoid allowing Crocker to engulf biologically sensitive Service grassland easement acres as part of their overall quest to impose an intermittent, unreliable, inefficient source of energy upon this pristine, aesthetic region of rural America. Simply "swapping" acres will not prevent long term negative environmental impacts from affecting this region of the Prairie Coteau. Crocker is already proposing to blanket the surrounding area with a multitude of industrial wind turbines. Removing 14 from their project would be recognized as a noble, neighborly gesture by Crocker and the limited revenue they would generate should be considered minute when compared to the long term environmental benefits the region's flora and fauna will prosper from when not subject to industrial wind's negative impacts.

The agricultural splendor, wildlife and grassland habitat, and great people who have made it their home for generations do not deserve the life altering ill effects associated with the proposed transition into an industrial wind park. I encourage you to deny Crocker's request to develop industrial wind towers on Service grassland easement lands. After all, I'm confident the lights will remain on despite reducing the project by a mere 14 turbines.

Sincerely,



Michael J Bollweg
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[REDACTED]
Harrold, SD 57536

P.S. Attached are letters to show permission granted for the use of Exhibits 1 and 3. I removed Exhibit 2 and cited to provide proper credit.