



June 5, 2020

Ms. Steffany Powell Coker
Public Service Commission of Wisconsin
P.O. Box 7854
Madison, WI 53707-7854

Re: Petition of No Green County Wind for the Appeal Under 9300-WF-105
Wis. Admin Code 128 PSC 128.51 of the Green County Land
Use and Zoning Office's Decision to Approve the Application
Of EDF Renewables for a Wind Energy System in the Town of
Jefferson, Green County, Wisconsin

Dear Ms. Powell Coker,

RENEW Wisconsin ("RENEW") appreciates the opportunity to provide comments on the Commission memorandum, dated May 29, 2020, concerning the petition of No Green County Wind appealing the county's approval of a 65 megawatt wind power project in 2019. The memorandum presents three options for action based on the Commission's consideration of this appeal. **RENEW supports Alternative Two: Deny the petition finding that Green County's decision does comply with Wis. Admin. Code ch. 128 or is otherwise reasonable.**

We begin by referencing the history of the Commission process (PSC 128) that allows citizen groups to appeal decisions by local governments to approve or deny wind power projects under 100 megawatts. The rule that specifies this process, PSC 128, was the product of legislation passed in 2009 (2009 Act 40) establishing uniform siting standards and procedures for local review of wind power projects across Wisconsin. Passed with substantial majorities and bipartisan support, this legislation was intended to replace what had been a patchwork quilt of widely diverging local rules with clear, consistent, and predictable regulations, including those to provide reasonable protection from potential health and safety impacts from wind generation. The siting rule promulgated by the Commission a year later specified maximum restrictions that a local government may impose on a wind energy installation. This policy approach created a fair and level playing field for all who would be affected by a specific wind power project. In stark contrast to what transpired in the previous decade, this regulatory framework enables commercial developers to design and build electric generating plants in

furtherance of the state's energy policy, which expressly favors non-combustible renewable energy resources such as wind power.

RENEW is heavily invested in the success of this policy. The highlights of RENEW's involvement in the wind siting arena include:

- Leading and organizing the diverse and broad-based coalition of interests (Wind for Wisconsin) that developed the enabling legislation and mobilized support for its passage;
- Participating in the drafting of PSC 128 through its membership in the Wind Siting Council;
- Documenting the benefits of wind power developments in Wisconsin that conform to the standards set forth in PSC 128; and
- Organizing science-based educational forums in communities where a wind farm has been proposed.

Though Sugar River is the first wind project to trigger an appeal under the wind siting rule, it is not the first project to receive approval from a local jurisdiction subsequent to PSC 128 taking effect. That distinction belongs to the Red Barn project being developed by Minnesota-based Project Resources Corporation (PRC). Red Barn received its approval from Grant County in July 2019. Interestingly, while Red Barn's rated capacity will be under 100 MW, PRC's application described a number of turbine models and configurations under consideration, but left room for the developer to decide later on a final site plan based on turbine size, cost and availability. This is not unusual. In fact, there has been at least one CPCN proceeding (Docket No. 6630-CE-294) involving wind generation in which the applicant, Wisconsin Electric Power Company, proposed a range of turbine models and costs for the project. The proposed turbine models differed from each other in terms of dimension and potential sound impacts. The Commission took note of the applicant's desire for flexibility and approved all four turbine models described in the application (see Order, 6630-CE-294).

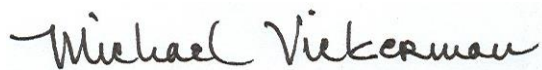
It's worth pointing out that the Red Barn project did not generate any organized opposition, and Grant County's approval did not trigger an appeal.

Prior to their approvals, both Green and Grant counties adopted siting ordinances that conformed to the siting standards specified in PSC 128. With the adoption of the ordinances, the two counties reviewed the specific applications from the wind developers. In both cases, they verified that the projects do not present any unacceptable risks to the surrounding community. Indeed, the Commission memorandum in question does not contain any discussion of health and safety-related concerns, which is not surprising in that project opponents did not raise these concerns in their appeal. Yet we have the situation that one project moved through the local siting process without any controversy while the other was contested from the get-go by neighbors opposed to the idea of nearby wind development, as indicated by their name: No Green County Wind.

It's worth noting that the existence of PSC 128 made it possible for the Sugar River project to survive the protestations of No Green County Wind and receive a fair hearing before the local permitting authority. Moreover, Green County oversaw a project application review process that provided ample opportunity for public engagement and comment, including a dedicated public hearing.

That Sugar River has made it this far attests to the value of PSC 128. Before 2010, opposition groups like No Green County Wind could prevail upon a local authority to adopt ordinances so extreme as to make wind farms effectively illegal, and subject wind developers to a permitting process without any discernible end point (see RENEW's January 4, 2008 commentary below). Lacking any regulatory recourse, it became nearly impossible for wind developers to pursue projects under 100 MW. For every Red Barn that managed to clear the local permitting gauntlet, five others met with an untimely end, resulting in the denial of the application or the abandonment of the project. However, with PSC 128, the Commission has the opportunity to review Green County's approval with the knowledge that Sugar River is in the public interest and would advance the state of Wisconsin's ambitious clean energy goals. **We urge the Commission to deny the appeal filed by No Green County Wind and let Green County's approval stand.**

Sincerely,

A handwritten signature in black ink that reads "Michael Vickerman". The signature is fluid and cursive, with the first name "Michael" and last name "Vickerman" clearly legible.

Michael Vickerman
Policy Director, RENEW Wisconsin
Member, Wisconsin Wind Siting Council, 2010-Present



Walling Out Wind

A commentary by Michael Vickerman

January 4, 2008

What is it about living within sight of large wind turbines that spooks certain people to the point of irrationality?

Consider the example of Trempealeau County in western Wisconsin. At the urging of a local citizens group, the County Board there adopted an ordinance last month that requires wind turbines higher than 150 feet tall to be set back no less than one mile from neighboring residences, schools, churches and businesses. This is by far the longest setback distance on wind turbines imposed to date by a local government in our state.

Now, the population density of Trempealeau County (38 residents per square mile) is less than half of the statewide average of 103 residents per sq. mile. Even so, as one developer pointed out at the hearing, there is not one acre of land that can legally host a commercial wind generator under this ordinance.

Why would a local board effectively ban wind turbines within its jurisdiction? Those backing the ordinance say that the one-mile setback is necessary to protect the health and safety of its citizens. Turbines, they contend, may produce sounds and electrical currents that can cause illnesses, even though no peer-reviewed study documenting such a phenomenon exists.

In a recently published book examining the environmental impacts of wind energy projects," the National Research Council wrote that wind turbines that are 1,000 feet away from a listener produce "relatively low noise or sound-pressure levels compared with other common sources such as a busy office, and with nighttime ambient noise levels in the countryside. While turbine noise increases with wind speed, ambient noises—for example, due to the rustling of tree leaves— increase at a higher rate and can mask the turbine noise."

In other words, while wind turbines produce an aerodynamic sound that is audible at 1,000 feet, ambient sounds inside a residence (e.g., air-conditioners, fans, refrigerators) and outside (e.g., birds, crickets) will very often mask or muffle it, even at night.

Then there is the issue of the flickering shadows cast by the turbine's spinning blades at certain times of the year under certain conditions. Though wind opponents commonly inflate this phenomenon into a health issue, the National Research Council believes otherwise. "Shadow flicker is not important at distant sites (for example, greater than 1,000 feet from a turbine) except during the morning and evening when shadows are long. However, sunlight intensity is also lower during the morning and evening; this tends to reduce the effects of shadows and shadow flicker."

A house 1,000 feet from a wind turbine could experience as much as 20 hours of flickering shadows per year, assuming cloudless conditions and strong crosswinds during all 4,380 hours of daylight in a year. Even if Wisconsin had such a climate, which would make the state uninhabitable for obvious reasons, how does this even rise to the level of a nuisance, let alone a health risk?

But it doesn't take much mental effort to come up with at least a half a dozen land uses more disruptive to neighbors a half mile away than commercial wind turbines would be from 1,000 feet. Some that might legitimately be considered nuisances are airports, quarries, landfills, auto and motorcycle racetracks, rail freight corridors, hog farms, food processing plants, central station power plants, highways, automobile dealerships that are lit up 24/7, and anyplace where trucks congregate. Yet I'm willing to bet that there's not one local ordinance in Wisconsin that requires them to be at least one mile away from a residence.

Meanwhile, there are four fossil energy stations in the heart of Madison supplying heat and electricity to local businesses and residences. Classroom buildings surround the main heating plant serving University of Wisconsin's Madison campus. Within 1,000 feet of Madison Gas and Electric's downtown power plant, one can find restaurants, offices, apartment buildings, stores, a bike path, a day care center and over 50 residences.

Clearly, for thousands of Madisonians, living, working, teaching or taking classes in full view of these energy plants is no big deal. But to hear Trempealeau County's wind opponents talk, living among wind turbines would devastate their quality of life. That's a very harsh assessment of a form of electricity generation that neither pollutes the air or water nor depletes the energy resource it uses.

Trempealeau County's antipathy toward local wind generation is symptomatic of areas that are completely dependent on the outside world to provide them with their energy. All of the motor fuel, heat and electricity consumed by the citizenry comes from somewhere else. The coal that generates electricity for that area is mined in Wyoming. The power plants that burn the fuel are located in other counties. There is not enough generating capacity in Trempealeau County to power a single holiday light display, let alone a school or a church.

Indeed, apart from the distribution lines along the roadways, there are very few visual cues reminding Trempealeau County of the electrical apparatus that allows them to toast their bread or automatically open their garage doors. Should one be surprised that a population used to views without smokestacks, large transmission lines, substations, strip mines, and

drilling pads would object to wind turbines in their midst? Saddened maybe, but not surprised.

Yet some communities are beginning to appreciate the liability of energy dependency in a time when oil costs \$100 per barrel. In the Town of Springfield, a semirural part of Dane County 10 miles northwest of Madison, a group of farmers has banded together to host a six-turbine wind project. Though this installation would be visible from several dozen neighboring residences within a half-mile of it, not one of them has registered an objection to the proposed energy facility.

Indeed, this may be the only project in Wisconsin that has not triggered any opposition, even though the population density in Springfield is higher than in other areas of the state where restrictive ordinances have been adopted, including Trempealeau County. Evidently, the neighbors around the host farms have concluded that nearby wind turbines would not constitute a health or safety hazard.

This begs the question: why is living in proximity to wind turbines acceptable in one part of Wisconsin and unacceptable in other areas? And what kind of world would come about if every jurisdiction followed Trempealeau County's lead? These are questions worth wrestling over, even though such an effort would inexorably lead to a book-length response.

Sources: Environmental Impacts of Wind Energy Projects, National Research Council, May 2007, The National Academies Press. http://www.nap.edu/catalog.php?record_id=11935

*Michael Vickerman is the executive director of RENEW Wisconsin, an organization advocating for a sustainable energy future. **RENEW Wisconsin** is an independent, nonprofit 501(c)(3) that leads and represents businesses, and individuals who seek more clean, renewable energy in Wisconsin. More information on RENEW's Web site at www.renewwisconsin.org.*