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3 **BEFORE THE**
4 **PUBLIC SERVICE COMMISSION OF WISCONSIN**
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8 Application for a Certificate of Public
9 Convenience and Necessity of Grant County
10 Solar, LLC to Construct a Solar Generation
11 Facility, to be Located in Grant County,
12 Wisconsin.

Docket No. 9804-CE-100

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15 **REBUTTAL TESTIMONY OF BRIANNA EISENTROUT FREAR AND HENRY FREAR**
16
17 **GRANT COUNTY INTERVENORS**
18

19
20 **Q: Please state your name and address.**

21 A: We are Brianna Eisentrout Frear and Henry Frear. We live at 7016 U.S. Highway 35 &
22 61, Potosi, Wisconsin.

23 **Q: Have you reviewed the Direct Testimony filed in this docket?**

24 A: Yes, we have, and we have concerns about some of the statements and issues.

25 **Q: What are your concerns?**

26 A: A major concern is property value. Our home is adjacent to this project and we do not
27 want to live in that situation. This is enough of a detriment that we will be moving to
28 another property in our family, away from the project. Reading the MaRous testimony,
29 he minimizes concerns over property valuation without any basis for doing so.

30 Per MaRous "An in-depth analysis of recent residential sales proximate to the
31 existing solar farms in North Branch, Minnesota, Elizabeth City, North Carolina, and
32 Goldsboro, North Carolina, which includes residential sales within approximately 5,500

1 feet, and as close as 165 feet, to photovoltaic panels, did not support any finding that
2 proximity to a photovoltaic panel had any impact on property values...” Direct, p. 4, l.
3 19-23. Homes at 165 feet and 5,500 feet have significantly different concerns and
4 impacts. Here, the setback utilized could be as close as 150 feet, closer than those
5 utilized, and on the other end of the spectrum, 5,500 feet is more than a mile. Using
6 properties 5,500 feet away skews the results and normalizes the impact to properties
7 directly surrounding the facility. The facility size, landscape, weather, climate, and
8 viewshed make a direct comparison to Minnesota, Illinois, Indiana, and North Carolina
9 invalid. On flatland, visual impacts are likely less than across the rolling driftless hills’
10 viewshed here in Potosi.

11 MaRous testifies that “A survey of Assessors in eleven (11) counties within
12 Wisconsin in which solar farms are located determined that there was no market evidence
13 to support a negative impact upon residential property values as a result of the
14 development of and the proximity to a solar farm, and that there were no reductions in
15 assessed valuations...” Direct, p. 5, l. 5-8. There are not 11 facilities of this scale built in
16 Wisconsin... there are no solar projects of this size operational with assessed properties...
17 nor are any of the recently permitted or proposed projects constructed and operational in a
18 driftless region known for rolling hills.

19 MaRous also does not take into account the importance of perception in
20 valuation., nor does Gil in his Direct. Gil Direct, p. 10, l. 8-10. An example of such
21 consideration is “A solar farm in *my* backyard? Resident perspectives of utility-scale solar
22 in eastern North Carolina,” a study which “aims to understand residents’ attitudes and
23 levels of satisfaction with the solar farms near their community as well as their

1 understanding of the renewable energy situation.” Ex.-GCI-Frear-10; see also Ex.-
2 GCI-Cray-12, Property Value Impacts Near Solar Installations.

3 **Q: Are there other witnesses whose testimony you would like to address?**

4 A: Yes. Some of the testimony of Grant County Solar’s Loomis is confusing. On initial
5 review, there needs to be a clear definition of “local” ...in this testimony, it seems to be
6 used very loosely.

7 Loomis claims that “This funding is intended to reimburse the communities for
8 the lost property tax revenue due to the tax exemption. I have concluded that under the
9 Wisconsin Shared Utility Aid Formula, Grant County is expected to approximately
10 \$466,667 and the Town of Potosi is expected to receive \$333,334 on an annual basis as a
11 direct result of the construction of the Project.” Direct, p. 5, l. 13-20. If this is meant to
12 offset property tax is should not be considered a benefit specifically. The full amount of
13 tax, the amount of revenue from the project, and the difference should be disclosed.

14 There are many different forms and means of taxation of solar, and in Gil’s
15 testimony, it is not clear whether taxation of this project, claimed benefits, and unclaimed
16 costs, are analyzed. One study, The Cost of Value: PV and Property Taxes, compares
17 “state property valuation and tax treatment of PV in 15 states.” This could aid in
18 determining whether there are costs and benefits to this project. Ex.-GCI-Frear-11.

19 Loomis testifies that “The farmer is financially better off under the solar lease in
20 100% of the 500 scenarios analyzed.” Direct, p. 6, l. 8-9. This is a misnomer, because it
21 should say “investor,” not farmer, as a majority of the contributors are not farmers and do
22 not live here. When the solar project is built, there will be no farming on that land,
23 another reason that the term “farmer” should not be used.

1 Loomis also states, “Thus, the Economic Impact Analysis concluded that the land
2 use value of solar leasing far exceeds the value for agricultural use.” Direct, p. 6, l. 18-
3 19. This is true for farmers that would potentially lease the land – farming cannot
4 compete with solar leases and therefore farmers currently leasing land to farm will
5 experience extreme hardship traveling further to find and secure land to farm. A solar
6 project skews the agricultural land-leasing market.

7 **Q: Do you have any rebuttal regarding environmental impacts?**

8 A: Yes. The Grant County Intervenors prepared and filed comments on the Commission’s
9 Environmental Assessment. Some of those issues have been brought up in testimony.
10 Grant County Solar’s Locker testifies, for example, that “Moreover, the Project will use
11 deer fencing around solar arrays, which the Commission determined in the recent Point
12 Beach Solar proceeding is “less hazardous to wildlife.” While Point Beach Solar is
13 planned for both sides of Highway 42, that highway is not as heavily traveled as
14 Highways 35 & 61 though the Grant Count Solar project, thus it is not comparable. Along
15 Highways 35 & 61, deer often cross this highway and would most likely become a hazard
16 to motorists when they are trapped between the tall wildlife-proof fences up and down the
17 highway and town roads. “All dead or injured wildlife found by Project personnel or
18 others in the Project Site will be reported to the company's appropriate environmental
19 services personnel.” Direct, p. 9, l. 10-12. This is vague. Reported by those “in” the
20 project site? What company will these animals be reported to, Next Era? Alliant? One of
21 the 3 GCS facility employees? And what will happen with these reports, are they filed
22 with the Commission, the DNR? This needs clarification.
23 Locker testifies that “Formal post-construction avian mortality monitoring will be

1 conducted at both the 300 MW Badger Hollow Solar generation facility located in Iowa
2 County, which is adjacent to Grant County, and the Two Creeks Solar Facility in
3 Manitowoc and Kewaunee Counties.” Direct, p. 11, l. 3-5. This is inadequate, because
4 neither of these facilities are near the Mississippi River, and Grant County is, nor have the
5 studies been completed at this time, and therefore without results to analyze, it is
6 premature to assume that avian mortality monitoring is not necessary. On p. 10, l. 5-6,
7 Locker conversely confirms the proximity to the Mississippi River to evade studies of
8 lake effect. This inconsistency invalidates the conclusions of Locker rejecting lake effect
9 studies and rejecting post-construction avian mortality monitoring.

10 Locker testifies regarding “visibility” and visual resources in the project area,
11 saying “The visual study demonstrates that although PV arrays would be visible and
12 identifiable while in close proximity, due to the rolling topography, in broader, more long-
13 distance views, the Project is likely to appear mostly absorbed into the existing
14 agricultural landscape.” Direct, p. 16, l. 20-23. “The visual appearance of the Project,
15 therefore, will not create any undue adverse impacts on environmental values such as the
16 aesthetics of land and water.” Direct, p. 17, l. 6-7. Use of qualified language, “likely” and
17 “mostly,” indicates this conclusion is questionable. We have lived in this community for
18 many years, and those that live and work around to proposed facility should be
19 considered the experts in the visibility impacts. These earthy rolling hills will be littered
20 with black equipment and inverters. Impact on “relatively few number of views” when
21 once the project is constructed there are relatively few residents to view, a larger
22 proportion of residents would be affected. These are family homes and two miles of US
23 highway views, homes visible on the project maps.

1 Another of our concerns is the heat island effect. This came to our attention soon
2 after the project was proposed, as we testified in our Direct testimony, Locker says that
3 “Based on the studies, it can be concluded that potential increases in air temperature are
4 limited to the space directly above, and in very close proximity to, the solar arrays. Any
5 increase will quickly dissipate with distance from the array perimeter due to daytime
6 convective mixing.” Direct, p. 19, l. 5-8. Our homes, crops, and animals are in “close
7 proximity” to the solar field. If “convective mixing” is cooling the panels, then so is the
8 wind blowing the heated air to the neighboring property. Per Fthenakis, V. and Y. Yu,
9 2013: “At 100 m away (328 feet), the daytime temperature was only 0.5°C above the
10 ambient air temperature and by 300 m (984 feet), that delta was within 0.3°C above the
11 ambient air temperature.” How is changing the temperature at my home at any given
12 moment by .5C not a heat island effect? Also, this study was done on a substantially
13 smaller installation. The delta from ambient may well be greater and impart further
14 distances around an installation of this scale.

15 New studies are published as large utility scale solar projects are constructed and
16 are operating. One released weeks ago is: “The Impact of Utility-Scale Photovoltaics
17 Plant on Near Surface Turbulence Characteristics in Gobi Areas.” Ex.-GCI-Frear-13.

18 As studies state, more studies are needed to understand the range of impact, and
19 no studies have been completed on solar projects of this magnitude.

20 **Q: Do you have any rebuttal to the testimony of Grant County Solar’s Guzman?**

21 **A:** Yes, we do. The Crays have provided more detailed rebuttal, but we want to point out
22 that Guzman’s testimony states that “Grant County Solar will conduct pre- and post-
23 construction stray voltage testing at any confined animal operation located within 0.5

1 mile of the Project Site in coordination with the local distribution utility.” Given the life
2 of the project is so long, 30 to 50 years, and that the project is coming into our established
3 agricultural Farmland Preservation community, periodic testing should be implemented
4 instead of relying on livestock to “tell” us when there is a problem, of farmers bringing
5 the information to the owner, both subject to a vague process. Stray voltage is a serious
6 issue in Wisconsin, and we need assurance that this project will not create problems for
7 our livestock operations.

8 **Q: Do you have rebuttal to the testimony of Grant County Solar’s Gil?**

9 A: Yes, we do. Gill testifies that either of two types of panels will be used. Direct, p. 5, l. 7-
10 8. That is too vague. Grant County solar must identify what panel will be used.

11 Gil also testifies that, “For example, based upon landowner feedback, Grant County Solar
12 established setback distances of 150 feet from the Project fence line to residences and
13 other buildings.” Direct, p. 7, l. 18-19. The Commission must take notice that the
14 participating landowners that have leased land for this project predominantly DO NOT
15 LIVE HERE. See map accompanying our Direct Testimony. These landowners’ feedback
16 should not be given much weight as they are not the ones who must live with this project
17 – we are the ones directly affected.

18 Gil also testifies that “Grant County Solar has made, and will continue to make,
19 good faith efforts to address individual concerns as the Project progresses. To date, Grant
20 County Solar is not aware of any individual hardship of the nature that should preclude
21 authorization, construction, or operation of the Project.” Direct, p. 10, l. 8-10. This
22 sentence utterly discounts our situation in a solar project that we do not want to live in.
23 We are having to pull up our roots and move away from the project – this is individual

1 hardship at its core.

2 Gil testifies regarding consideration of brownfields that “The nearest brownfield
3 site larger than 15 acres is a 47-acre site in Prairie du Chien, Wisconsin, and that site is
4 not large enough to accommodate the Project.” Direct, p. 15, l. 12-14. There is no basis
5 for rejection of brownfields as potential for siting. A “greater than 15 acre brownfield” is
6 not a criteria for evaluating brownfield alternatives considering NextEra is proposing
7 creating a 2,000 acre brownfield out of prime ag land. There is no mention of distributed
8 generation on multiple sites, use of closed and abandoned coal or nuclear plants, sand
9 mines, or use of less productive irrigated land ever being considered.

10 In addition to brownfield siting being a requirement for utility siting in Wisconsin,
11 there are environmental and economic benefits to brownfield siting. Ex.-GCI-Frear-14,
12 The Value of Brownfield Remediation; see also Ex.-GCI-Frear-15, Land-Sparing
13 Opportunities for Solar Energy Development in Agricultural Landscapes: A Case Study
14 of the Great Central Valley, CA, United States. These are examples that the commission
15 should take into consideration, particularly in its thus far limited view of the value and
16 requirement of brownfield siting.

17 While we understand that use of brownfields may impact NextEra’s profit and
18 control, the use of distributed brownfields may lower externality costs, and the benefits of
19 responsible siting of renewable energy may have a greater net positive economic impact
20 for Grant County and Wisconsin. It is clear that NextEra has not appropriately
21 considered brownfield siting.

22 Gil testifies that “A decommissioning plan will be developed prior to the
23 commencement of construction to fully address anticipated decommissioning

1 procedures.” Direct, p. 17, l. 14-15, see also p. 16-18. Because utility scale solar is new,
2 it has not been demonstrated that the Farmland Preservation land that a solar project has
3 been built on can be returned to agricultural production after 30-50 years of the projects
4 expected life. The future tense of the statements that the “decommissioning plan will be
5 developed” and that the “will provide non-binding estimated decommissioning cost
6 information on a confidential basis” is not reassuring. We ask that this information be
7 provided publicly prior to permitting of the project. This plan needs to be fully vetted
8 and the terms and conditions binding.

9 Gil also testifies about public notice and participation. “The first open house was
10 held on October 7, 2019 at the Youth and Ag Center in Lancaster, WI, and the second
11 open house was held on January 13, 2020 at the Holiday Gardens Event Center in Potosi,
12 WI. Both events were well-attended, with over a combined total of 180 people in
13 attendance at both events.” Direct, p. 18, l. 17-20. However, these open houses were not
14 an example of public process and transparency in action. For the first open house on
15 October 7, 2018, a vague brochure was dropped off at a few doors. This brochure did not
16 show location or size of the proposed facility. This open house had maybe 20 people and
17 very little information was shared unless direct questions were asked. The January 13th,
18 open house was heavily attended after a campaign by the neighbors and a video from
19 How Farms Work let the community know that this was their chance to ask questions.
20 Only after the NextEra staff was overwhelmed by vocal public interest did they take a
21 few questions from the group -- it became clear they did not have answers. We provided
22 our email addresses to NextEra at this meeting.

23 The Potosi Township board meeting January 13th, 2020 where the Meteorological

1 station was “approved” was also heavily attended by neighbors after not getting answers
2 at the earlier open house. We were able to ask pointed questions, and were told that we
3 were due answers. The approval was 2 of 3 of the town board after a discussion on how
4 the board would be overridden by the county if they did not approve. NextEra agreed to
5 get back to us with answers via the email we provided at the open house.

6 At the February 6, Grant County Board meeting where the met station was
7 “approved,” NextEra attorney Peter Gardon essentially told the board that since GCS is
8 considered a utility they don’t need the board’s approval for the Meteorological station
9 but are here as an act of goodwill to let the county know what is going on.

10 “On February 26, 2020, a public website was launched specific to the Project.”
11 Direct, p. 19, l. 4-5. Although we had provided emails, we were not made aware of the
12 website. “March 10, 2020, a tri-fold brochure was mailed to all landowners and
13 neighbors of the Project to disseminate additional information.” Id., l. 5-6. Brianna &
14 Henry Frear have not received any mailings. We live directly North and East of the
15 proposed facility, and the project is well aware of our interest. The public outreach and
16 participation has not been stellar. Non-participating landowners have been left in the
17 dark.

18 **Q: Does this conclude your rebuttal testimony?**

19 **A:** Yes, it does.