

BLACK SWAMP BIRD OBSERVATORY

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TEAMING RESEARCH WITH EDUCATION TO PROMOTE BIRD CONSERVATION

Woodville Township Board of Trustees
321 Main Street
Woodville, Ohio 43469

August 30, 2022

Members of the Board of Trustees,

The Black Swamp Bird Observatory (BSBO) would like to thank the Woodville Township Board of Trustees for the opportunity to delve into the matter of wind turbines at Martin Marietta and their implications for birds, the citizens of Woodville, and Northwest Ohio in general. We will keep our discussion here confined to only a few of the considerations we believe to be most relevant and important to the Board's decision at their next meeting on September 7th.

1. The Woodville Township Board of Trustees meeting on Aug. 18, 2022, tried to focus on the resolution to amend the zoning ordinances to include the newly written section 7.11 defining a "large wind system." But the primary issue of whether or not there should even be such a resolution was continually raised by attendees. They often made their comments to the Board saying, in effect, why do we need a resolution to allow a larger wind system in the township when the current regulations have clearly banned them, and have done so intentionally, expressing the will of the members of the community that is Woodville Township?

The attendees were told that the resolution before the Board was not made specifically to accommodate the wants of Martin Marietta or One Energy, but would be applied to all of Woodville Township at any time in the future. However, it was also pointed out that there were no more M-2 zones in which to put a large wind system other than at Martin Marietta. The singular exemption of the S-1 zone -- the cemetery -- from the 1,500 foot setback further identifies this amendment as tailored to Martin Marietta's goals. Thus, to say that the resolution is not intended to serve the purposes of Martin Marietta and One Energy intentionally is simply not accurate.

In the final analysis, it is the responsibility of the Board to define an acceptable wind system which excludes certain turbine designs and capacities which are not desired in the community. The current definition of a small wind system in section 7.5 does exactly that. In fact, if section 7.11 is enacted, there is no need for section 7.5, and what was previously adopted as 7.5 would no longer protect and promote the health and safety of the community.

2. BSBO has encouraged Martin Marietta to install a field of solar panels instead of wind turbines because solar is much less lethal to avian life, and because solar panels are made locally in Perrysburg by First Solar. The response from One Energy was that solar had been evaluated during the feasibility stage of the project and there were two shortcomings in the solar option: a) First Solar is not taking on projects having less than 1 GW capacity, and that their panels are not available otherwise; b) it was estimated that it would take 100 acres of land to provide solar

having enough capacity to equal the 4.5 MW turbines. We have investigated the accuracy of these statements by talking to local installers of commercial scale solar arrays and found the statements by One Energy to be inaccurate.

- a. First Solar does not take on projects of less than utility scale because that is their business model. They refer clients like Martin Marietta with smaller projects to local distributors who provide locally-made panels.
- b. We referred to the calculations recommended by the National Renewable Energy Laboratory (NREL) and the calculator called PVWatts Calculator to develop two conclusions. First, it would require about 10.6 MW DC of solar panels to equate to 4.5 MW of wind turbines (both capable of producing 13,800,000 kWh/yr). Second, this would require between 31.8 and 53.0 acres of land, not 100 acres. (The reason for seemingly large variance in the true acreage requirement is to take into account effects of land topography and geometry on spacing and placement of the solar panels. Flat land having nearly rectangular shape would be closer to the lower estimate since it would optimize panel spacing.) This implies that the existing land available for the turbines could be used instead to provide a very nearly equal amount of power by installing solar panels. To Martin Marietta's benefit, the on-going maintenance costs of the solar panels would be expected to be less than that of the turbines.

The use of solar instead of wind turbines would not require any amendment to the zoning ordinances, and would avoid the public perception that the health and safety of the citizens of Woodville are secondary to the finances of Martin Marietta.

3. There were a couple of considerations that went unmentioned at the meeting. One was that if there were a catastrophic turbine failure resulting in a collapsing tower falling in the direction of the cemetery, given the current setback proposal of 200 feet for S-1, the northern most turbine would fall 200 feet into the cemetery. The second northern most turbine would fall 20 feet into the cemetery. Considering the excellent degree of care and maintenance exhibited by the cemetery's upkeep, the apparent pride the community takes in the cemetery, and the safety of cemetery visitors these possibilities should be avoided at all cost by removing the exemption of S-1 from the setback requirement of 1,500 feet. A second concern is of a similar nature and concerns debris from either ice throw or blade failure being tossed into the cemetery. In the event of either of these events happening, the cemetery is well within the trajectory of the debris should a setback of only 200 feet be enacted.
4. The last issue to be considered is the lack of any stated planning for the eventual decommissioning of the turbines at the end of their useful life. Turbines have an expected life of about 25 years. Erecting them without a plan for decommissioning seems rather shortsighted. Since the turbines have no real utility beyond 25 years, a plan for their decommissioning would be prudent because it is an expensive process. Indeed, advanced planning for the decommissioning of turbines is a step that the Ohio Power Siting Board is coming to see as necessary, to the extent they have required escrow accounts be established to pay for the eventual decommissioning of turbines in the projects which they oversee.

The experts at Black Swamp Bird Observatory firmly believe that the use of wind turbines in Northwestern Ohio should be prohibited in order to avoid extreme and unnecessary risk to resident Bald Eagles and to one of the largest concentrations of migrating birds in North America. It is simply an unsafe place for wind turbines. We again encourage the use of solar arrays and rooftop solar to expand the use of renewable energy in this area.

CONCLUSIONS

For the reasons set forth above, BSBO respectfully requests that the Trustees resolve to:

- protect this ecologically sensitive area so crucial to migratory and resident birds
- support the multi-million dollar economic impact of the birding industry in northwest Ohio
- remove the exemption of S-1 from the setback requirement of 1,500 feet in order to protect the cemetery property and its visitors from harm
- vote against any ordinance developed primarily to accommodate the Martin Marietta wind energy project

Sincerely,



Don Bauman, BSBO Board of Directors, Chair



Kimberly Kaufman, BSBO Executive Director



Mark Shieldcastle, BSBO Research Director

Cc: Lori Kepus, Fiscal Officer, Woodville Township