

**BEFORE THE OHIO POWER SITING BOARD**

<b>In the Matter of the Application of</b>	)	
<b>Nestlewood Solar I LLC</b>	)	
<b>for a Certificate of Environmental</b>	)	<b>Case No. 18-1546-EL-BGN</b>
<b>Compatibility and Public Need</b>	)	

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**DIRECT TESTIMONY OF LYNN GRESOCK**

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2 **Q.1. Please state your name, title and business address.**

3       **A.1.** My name is Lynn Gresock. I am Vice President – Energy Program with Tetra  
4 Tech, Inc. (“Tetra Tech”). My business address is 3 Lan Drive, Suite 100, Westford, MA  
5 01886.

6 **Q.2. What are your duties as Vice President – Energy Program?**

7       **A.2.** Tetra Tech is a provider of consulting, engineering, construction and technical  
8 services focused on resource management and infrastructure. In my role at Tetra Tech, I  
9 coordinate the company’s national practice for the energy market, and provide consulting  
10 services for a broad range of energy projects. That work has included supporting project  
11 development from early definition phases, through obtaining licensing approvals,  
12 construction oversight, operational compliance support, and transactional due diligence.

13 **Q.3. What is your educational and professional background?**

14       **A.3.** I have a B.S. degree from the University of Massachusetts in Landscape  
15 Architecture and Regional Planning, and over 35 years of professional experience providing  
16 environmental permitting and compliance services. I have supported a wide range of projects  
17 nationwide, including permitting over 20,000 megawatts of energy facilities. Through this  
18 work, I have gained a strong knowledge of the range of related issues and work closely in  
19 directing technical experts to provide strategic, technical, and regulatory support for facility

1 development and operations. My work includes Ohio Power Siting Board permitting for a  
2 number of generating facilities either successfully approved or currently in process.

3 **Q.4. On whose behalf are you offering testimony?**

4 **A.4.** I am testifying on behalf of the Applicant, Nestlewood Solar I LLC.

5 **Q.5. What is the purpose of your testimony?**

6 **A.5.** The purpose of my testimony is to describe certain studies that support the  
7 Application and summarize the results of those studies.

8 **Q.6. What studies did you and your firm undertake and direct on behalf of the**  
9 **Applicant to support the Application identified as Company Exhibit 1?**

10 **A.6.** Tetra Tech is the lead environmental consultant on the Nestlewood Solar  
11 Project, which includes the approximately 610-acre project site (“Project Area”), within which  
12 solar panels, pilings, racking, buried electrical lines, inverters, roads, meteorological stations, a  
13 project substation, and other ancillary facilities (“Project”) will be located. I have managed,  
14 been directly involved coordinating, and am familiar with the full range of environmental and  
15 cultural assessments completed for all aspects of the Project. In addition to undertaking and  
16 directing studies on behalf of the Applicant, Tetra Tech supported the preparation of the  
17 application, the modification, and the related studies. Through Tetra Tech’s preparation of the  
18 application, I am familiar with all studies, including those not prepared by Tetra Tech.

19 **Q.7. Will the Project generate any significant noise during construction?**

20 **A.7.** No. As described in the Acoustic Assessment included as Appendix F to the  
21 Application, the Project’s construction will generate intermittent sounds typical of construction  
22 sites, such as truck traffic and earth moving equipment. Because construction is anticipated to  
23 be completed within 10 months, any temporary noise that could affect the surrounding area will

1 be extremely limited. The Project's construction is relatively simple in comparison to other  
2 energy-generating technologies and will not include a number of activities that can be typical  
3 for other types of installations. No blasting will be conducted for the Project. In fact, earth  
4 movement is expected to be minimal, as the majority of the Project installations can use  
5 existing grades. Earth moving equipment will generally be limited to minor grading and  
6 foundation work associated with the substation and inverter/transformer pads. Pile driving is  
7 anticipated in order to install the piles that will support the solar arrays; the depth of installation  
8 will be approximately 8 feet, which will limit the duration of pile-driving effects. Rock-  
9 breaking or hammering are not anticipated; horizontal directional drilling, if necessary, would  
10 be limited to providing access under existing roads for the collector lines.

11 In general, the limited activities, buffer from densely populated areas, and short duration of the  
12 construction effort are expected to minimize noise impacts associated with Project  
13 construction.

14 **Q.8. Will the Project generate any significant noise during operation?**

15 **A.8.** No. In comparison to a fossil generation, a large-scale solar facility comes close  
16 to operating silently. The Project's operation will generate only very small amounts of noise  
17 because the generation equipment involves no fuel movement, no combustion, no waste  
18 movement, and very few moving parts. Normal Project operations will only occur during the  
19 daytime operations, and the major noise-producing equipment will not operate during the  
20 nighttime period.

21 Tetra Tech performed a baseline sound survey and determined that daytime noise ranged from  
22 36 dBA to 52 dBA at monitoring locations in the vicinity of the Project Area. Tetra Tech then  
23 used a noise prediction model to determine what effect, if any the Project would have on noise

1 levels. The Acoustic Assessment concluded that operation of the Project would result in a 5-  
2 dB or less increase to the existing ambient noise level even at the residential location within the  
3 Project Area. Noises increases will be lower in other, more distant, locations. Overall,  
4 operational noise is not expected to be intrusive, and will comply with the OPSB noise  
5 guidelines.

6 **Q.9. Please describe and summarize the study of wetland, streams, and other waters**  
7 **within the project area as presented in the Application.**

8 **A.9.** At the request of Tetra Tech, Smart Services, Inc. conducted a detailed study to  
9 determine the boundaries of wetlands and other waters for the Project Area, which I have  
10 reviewed and which is attached to the Application as Appendix G. The field work for this  
11 study was performed in October-November 2018. Per the study report, wetland areas and  
12 other waters, including streams and agricultural ditches, were delineated on site by Smart  
13 Services using methodology enumerated in the United States Army Corps of Engineers  
14 (“USACE”) Wetland Delineation Manual (USACE 1987) and the applicable regional  
15 supplements; Regional Supplement to the Corps of Engineers Wetland Delineation Manual:  
16 Midwest Region (Version 2.0) (USACE 2010), as well as the Ohio Rapid Assessment Method  
17 (“ORAM”) for wetlands.

18 Smart Services reviewed secondary literature sources to identify known wetlands and other  
19 significant ecological resources and areas with high potential for wetlands in or near the  
20 Project Area. A field inspection was then conducted to identify major plant communities and  
21 potential wetlands and other waters. Wetlands and other waters were surveyed using a GPS  
22 unit as well as aerial photography and topographic figures.

23 Within the Project Area, there are ten wetlands totaling 62 acres, the majority of which were

identified as forested or scrub-shrub wetland identified as ORAM Category 2 wetlands. 0.7 acres of the identified wetland areas is emergent wetland scored as Category 1.

Portions of 5 streams were also identified during field investigations within the Project Area, totaling 2,567 linear feet of waterway. All streams were considered Class II waterbodies using the Headwater Habitat Evaluation Index. There is also a single 0.3 acre pond with the Project Area.

Importantly, the Smart Services' study did not identify any Category III wetland or Class III stream areas, the highest classifications, within the Project Area. In addition, the Project will avoid impacting the vast majority of aquatic resources present in the Project Area. Upon completion of the study provided in Appendix G, the Applicant examined areas where impact to woodlands and delineated wetlands could occur and refined the layout of the Project further to reduce these potential impacts. To the extent practicable, the solar panels are sited in upland, open fields that lack diversity due to active agricultural use. Permanent wetland fill will be limited to 0.5 acre or less, and impact to streams will be less than 300 linear feet.

**Q.10. Please describe and summarize the study of endangered species in the Project Area.**

**A.10.** Contemporaneous with the wetland survey, the Project Area was also studied for suitable habitat for state and federal listed species. No listed species were observed during the study, and most of the Project Area habitat is not suitable for listed species. Both the U.S. Fish and Wildlife Service (USFWS) and Ohio Department of Natural Resources (ODNR) identified the Project Area as in the vicinity of one or more confirmed records of Indiana bats. The Applicant will only conduct any required tree clearing between October 1 and March 31, and intends to continue to work with USFWS and ODNR to avoid any impacts to this species.

ODNR also noted that the Project is within the range of the Kirtland's snake, a state threatened species, and recommended that a presence/absence survey be conducted by an approved herpetologist. Accordingly, Doug Wynn (an ODNR-approved herpetologist) was engaged to complete a habitat review of the site (see Appendix H to the Application). Mr. Wynn's review identified two limited locations within the Project Areas that had potential for use as habitat by the Kirtland's snake, and recommended a more detailed presence/absence survey, using coversheets, be conducted unless these potential habitat areas can be avoided. One of the identified areas will be completely avoided, while the second will be traversed by underground infrastructure that will be installed using boring techniques to avoid disturbance to the habitat area. Applicant intends to continue to work with ODNR to avoid any impacts to this species.

**Q.11. What is your overall opinion regarding the environmental and ecological impact of the Project?**

**A.11.** In my opinion, based on my experience and the results of the studies I have reviewed, the environmental and ecological impact of the Project will be minimal.

**Q.12. Did you direct a visual impact assessment and, if so, what were the findings?**

**A.12.** A Visual Impact Assessment ("VIA") was prepared to satisfy those portions of the requirements of OAC Chapter 4906-04-08(D)(4) that relate to the identification of visually sensitive sites and potential visual impacts. It is attached to the Application as Appendix J. Our firm conducted an analysis of the visibility of the Project to identify those locations within the visual study area where there is potential for the Project to be seen from ground-level vantage points.

Here, forested areas surround the majority of the Project Area, either in the form of scattered

woodlots or more narrow strips of fencerow vegetation. Only limited areas within the area of potential effect would be likely to result in views of the Project, and a limited number of homes are located within those areas. Mitigation measures, in the form of vegetative screening, will be offered to obstruct or soften views of the Project, where appropriate

In fact, given the low profile of the Project, retaining the majority of the wooded areas within the Project Area is expected to provide natural screening for the majority of the Project. Should a viewer in close proximity to the Project be adversely affected by views, potential screening methods can be considered. This could include fencing enhancement or potential plantings to screen line-of-sight. The Project will also be designed to mitigate the effects of nighttime lighting, using only lighting necessary for safety and security. Features that may be incorporated in the design are downward-facing lights with side shields, motion activated lighting, or manually operated task lighting.

**Q.13. Will the Project adversely impact cultural historic resources?**

**A.13.** No. Tetra Tech conducted a literature review and archaeological site file review of the area within ten miles of the Project Area, referencing Tetra Tech's in-house resources in addition to resources available on file at the Ohio Historic Preservation Office ("OHPO") in Columbus, Ohio, and searchable databases including:

- National Register of Historic Places ("NRHP")
- NRHP Determination of Eligibility ("DOE")
- National Historic Landmarks ("NHL")
- Ohio Historic Inventory ("OHI")
- Ohio Department of Transportation ("ODOT") Historic Bridge Inventory
- Ohio Archaeological Inventory ("OAI")

- Ohio Genealogical Society (“OGS”) cemetery files
- Mills Archaeological Atlas of Ohio (1914)

This analysis identified 19 NRHP-listed properties, 351 OAI archaeological sites, 229 OHI-listed properties, 167 OGS cemeteries, and 3 ODOT historic bridge inventory bridges in the 10-mile area. None of these resources occur in the Project Area. We concluded that there will be no direct impacts to aboveground cultural resources (i.e., cemeteries or historic structures) from construction of the Project. The Project will not directly (physically) impact any known cultural resources within the Project Area, and therefore no mitigation measures for direct impacts are proposed at this time.

The Project Area has not been systematically surveyed for archaeological resources. After the final layout of the Project is determined, the Applicant plans to conduct a limited archaeological survey for those portions of the Project where substantial, direct ground disturbance is proposed.

In addition, views of the Project will be limited to properties and structures within immediate proximity to the Project Area, in areas where a vegetative buffer is absent. As no archaeological sites, historic buildings and structures, historic cemeteries, or NRHP-listed properties are within proximity to the Project Area, no visual impacts are anticipated.

**Q.14. Have you reviewed the Modification to the Project Footprint filed by the Applicant May 24, 2019?**

**A.14.** Yes.

**Q.15. Does the shift in the location of an underground collection line easement described in the Modification require any changes to the studies you have discussed in your testimony that were submitted along with the Application?**

**A.15.** No. As previously noted, the underground line can be installed using boring



1 techniques to avoid disruption to habitat potentially suited to the Kirtland's snake. The area  
2 through which the new easement runs was reviewed as part of the visual and cultural evaluation.  
3 In addition, that property has now been the subject of review by a wetland professional, and  
4 adequate upland area exists such that the installation of the underground collection line will not  
5 result in any additional impacts to wetlands or other aquatic resources.

6 **Q.16. What is your overall assessment of the Modification?**

7 **A.16.** The Modification should not result in any increased environmental, ecological,  
8 cultural, or visual impact. The impact of the Modification, like that of the Project as originally  
9 proposed, should be minimal.

10 **Q.17. Have you reviewed the May 15, 2019 Staff Report of Investigation issued in this**  
11 **proceeding?**

12 **A.17.** Yes.

13 **Q.18. Do you have observations or responses to any of the conditions listed in the Staff**  
14 **Report of Investigation?**

15 **A.18.** Not from an environmental or ecological perspective. The Project is well-sited,  
16 taking advantage of open, agricultural land to minimize the need for clearing, avoid and  
17 minimize wetland and stream impacts, avoid impacts to threatened or endangered species, and  
18 avoid impacts to significant cultural resources.

19 **Q.19. Does this conclude your testimony?**

20 **A.19.** Yes, but I reserve the right to present any additional testimony in support of any  
21 stipulation or rebuttal testimony.

### **CERTIFICATE OF SERVICE**

The Ohio Power Siting Board's e-filing system will electronically serve notice of the filing of this document on the parties referenced in the service list of the docket card who have electronically subscribed to this case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being served upon the persons below via electronic mail this 3rd day of June 2019.

/s/ MacDonald W. Taylor

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**Case No(s). 18-1546-EL-BGN**

Summary: Testimony Direct Testimony of Lynn Gresock electronically filed by Mr. MacDonald  
W Taylor on behalf of Nestlewood Solar I LLC