

**BEFORE THE OHIO POWER SITING BOARD**

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| <b>In the Matter of the Application of</b>      | ) |                                |
| <b>Hillcrest Solar I, LLC for a Certificate</b> | ) |                                |
| <b>of Environmental Compatibility and</b>       | ) | <b>Case No. 17-1152-EL-BGN</b> |
| <b>Public Need Issued to Construct an</b>       | ) |                                |
| <b>Electric Generation Facility in Green</b>    | ) |                                |
| <b>Township, Brown County, Ohio</b>             | ) |                                |

**DIRECT TESTIMONY OF DOUGLAS HERLING**

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

**A.1.** My name is Douglas Herling. I am Director of Business Development with Open Road Renewables, LLC (“Open Road”), 1105 Navasota Street, Austin, Texas 78702. The sole member and manager of Applicant, Hillcrest Solar I, LLC (Applicant”), is Blue Planet Renewables, LLC, whose members are Open Road and MAP Royalty, Inc. (“MAP”) I am the project manager for the Hillcrest Solar Project (“Project”).

**Q.2. What are your duties as Director of Business Development?**

**A.2.** I am responsible for the development of a number of solar energy projects being developed by Open Road. My responsibilities include, but are not limited to, establishing and managing relationships with elected officials, regulators, and community opinion leaders to support project development; identifying prospective projects with suitable wind resources and electric transmission access; developing and managing project budgets; managing environmental study and permitting processes, managing third party consultants; and supporting financial analysis and modeling of the project economics.

**Q.3. What is your education and professional background?**

**A.3.** I graduated from Colgate University with a bachelor degree in Geology in 2008 and subsequently completed my MBA at the University of Texas – McCombs School of Business in 2015. Professionally I have worked in the financial industry and energy industry since graduating from college and business school, respectively. From 2008 to 2013 I worked for Oak Investment Partners and at the Environmental Investment Organization. From 2014 through 2016 I worked for Pioneer Green Energy as a wind developer and in business development, alternatively assisting or leading the development of several large-scale wind farms in Texas. In 2017 I joined Open Road Renewables, a privately held renewable energy development company based in Austin, Texas.

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

**A.4.** I am testifying on behalf of the Applicant

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

**A.5.** There are several purposes. First, I would like to provide background information concerning the Application and Exhibits submitted to Staff on June 29, 2017 (Company Exhibit 1).<sup>1</sup> Second, I will summarize the major items in the Application and sponsor its admission into evidence along with the exhibits, certificates of service, proofs of publications, and other letters required by Ohio Power Siting Board rules. Third, I will summarize major items in the Notification of Modification of the Project Footprint filed on November 3, 2017 (Company Exhibit 2).

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<sup>1</sup> The confidential excerpts of the Application and Exhibits were submitted under seal on June 29, 2017 and have been identified as Company Exhibit 1C.

**Q.6. Would you please provide a summary and overview of the proposed facility?**

**A.6.** The Applicant is proposing to build the Project as a 125 MW solar-powered generating facility in Green Township, Brown County, Ohio. The project would consist of large arrays of ground-mounted photovoltaic modules, commonly referred to as solar panels. The Project also includes associated support facilities, such as access roads, meteorological stations, buried electrical collection lines, inverter pads, and a substation. The energy generated at the solar farm (hereinafter referred to as the “Project”) will deliver power to a single point of interconnection at the Duke Energy Hillcrest 138 kilovolt (kV) substation (“Utility Substation”).

**Q.7. What is the general purpose of the Project?**

**A.7.** The general purpose of the Project is to produce solar-powered electricity that will maximize energy production from solar resources in order to deliver clean, renewable electricity to the Ohio bulk power transmission system to serve the needs of electric utilities and their customers. The electricity generated by the Project will be transferred to the transmission grid operated by PJM Interconnection, LLC for sale at wholesale to the grid or under a power purchase agreement.

**Q.8. Would you describe the Project Area, proposed Project and the power generation potential of the solar farm?**

**A.8.** The Project Area is located within approximately 2,100 acres of leased privately owned land in Green Township in Brown County. The Project will be located on previously disturbed land that has been mostly cleared for agriculture and is extremely level. The predominant industry is agriculture.

The Project Area is rural, and is largely characterized by medium- to large-sized farms with interspersed pockets of trees. Undeveloped land includes actively cultivated fields, small blocks and rows of trees and other vegetation, and old fields. Existing features in the Project Area include two electric transmission lines (one 345 kilovolts and the other 138 kilovolts), the Utility Substation, communication towers, public roads, single family homes and farm buildings. The Project Area itself does not include any population centers, major industries or notable landmarks.

The Project design and engineering is not yet finalized, but the final Project will occupy approximately 1,100 acres of the 2,100 acres under lease.

The Project will generate electricity with conventional solar panels, which will be affixed to metal racking. The racking will include piles that will be driven, or screws that will be rotated, into the ground in long rows or “arrays”. Arrays will be grouped in several large clusters, each of which will be fenced, with locked gates, for equipment security and public safety (“Solar Field”).

Each of the Project’s arrays will use one of two types of racking: “fixed-tilt” or “tracking.” Fixed-tilt racking will be stationary, and each array will run in an east-west direction. Panels mounted on fixed-tilt racking will be oriented or “titled” to the south. Tracking arrays will run in a north-south direction and be equipped with electric motors that very slowly rotate the panels throughout the day to keep them perpendicular to the direction of sunlight. Tracking arrays will face east at sunrise, rotate to the west during the day, face west at sunset, and then re-set to the east.

The solar panel technology for the Project will be one of two basic types: crystalline or thin-film. Crystalline modules are silicon-based. Thin-film modules use one of several alternative chemistries (such as cadmium telluride [CdTe] or copper indium gallium selenide [CIGS]). Crystalline modules cost more to manufacture than thin-film modules, but also are more efficient. Most racking systems, whether fixed-tilt or tracking, will accommodate either crystalline or thin-film modules.

Although the specific module vendor has not been selected, “Tier 1” modules will be used for the Project. At a capacity of 125 MWac, the Project will use approximately 375,000 to 475,000 modules. Depending on the choice of racking and the specific module, the anticipated annual net capacity factor for the Project is anticipated to be from 23% to 25%. Accounting for the total generating capacity of 125 MW, anticipated operating times, and panel capacity factors, the Project will generate between 251,850 to 273,750 megawatt-hours of electricity each year.

**Q.9. Would you describe the November 3, 2017 submittal of the Notification of Modification of the Project Footprint?**

**A.9.** The Applicant modified the footprint of the Project by adding an approximately 6.1-acre portion of an 8.45-acre parcel. The parcel is currently under lease (and has been under lease) with the Applicant. Another parcel adjacent to the 6.1-acre parcel that was part of the original footprint of the Project has the same owner.<sup>2</sup> Importantly, the addition of this small parcel will result in no additional impacts within the overall Project footprint. I am sponsoring the supplemental information for the modified Project footprint as described in Company Exhibit 2.

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<sup>2</sup> This land was part of the initial surveys and thus no new surveys were initiated by the Applicant’s consultants.

**Q.10. Are the June 29, 2017 Application and Exhibits, responses to Staff Data Requests, and Notification of Modification (the “Notification”) of the Project footprint true and accurate to the best of your knowledge and belief?**

**A.10.** Yes, the Application and Exhibits (Company Exhibit 1) as well as all of the Responses to the Staff Data Requests (Company Exhibit 3) and the Notification are true and accurate and were prepared under my direction.

**Q.11. Were copies of the accepted Application served on local public officials and libraries in accordance with Rule 4906-3-07(A) of the OAC?**

**A.11.** Yes, I directed that such service take place and am sponsoring Company Exhibit 4.

**Q.12. Did the Applicant file and serve a copy of the letter sent to property owners and tenants within the plan site or contiguous to the plan site?**

**A.12.** Yes, pursuant to Rule 4906-3-03(B) of the OAC, I directed that a letter be sent to certain Green Township property owners on May 4, 2017 announcing the Public Information Meeting on May 29, 2017. Copies were served on the Brown County Commissioners, Green Township Trustees, and Director of Brown County Economic Development. Subsequent letters were mailed on September 26, 2017 pursuant to Rule 4906-3-09(A)(1) and on November 16, 2017 pursuant to Rule 4906-03-09(A)(2) of the Ohio Administrative Code. See Company Exhibit 5 which I am sponsoring.

**Q.13. Did the Applicant cause notice of the informational public meeting, the Application, and the hearing dates to be published in local newspapers?**

**A.13.** Yes, I directed such noticed be published in The News Democrat. See Company Exhibit 6.

**Q.14. Would you please list the consultants that the Applicant retained to prepare this Application and Exhibits and their respective areas of responsibility?**

**A.14.** Yes. The Applicant worked with EDR, acting as lead consultant on the Application, to coordinate the studies used to generate the Application and Exhibits. The consultants and their respective areas of responsibility include:

- EDR – Visual Resource Assessment, Socioeconomic Report, and Cultural Resources Survey
- Hessler Associates, Inc. – Existing Conditions Background Sound Survey and Operational Noise Assessment
- Fischer and Associates – Transportation Effect and Route Evaluation Study
- Cardno, Inc. – Ecological Assessment
- Hull, Inc. – Geotechnical and Hydrogeology Report

**Q.15. Do you believe that the proposed Project will have a positive impact on the local community?**

**A.15.** Yes. The Project will create approximately 600 jobs during construction and up to 20 jobs locally during the operations period. Along with associated wages and services provided locally to support construction and operations, the community will benefit from a payment in lieu of taxes amounting to \$875,000 per annum.

**Q.16. Has the Project been designed to achieve minimum impacts?**

**A.16.** Yes. Since 2015 the Applicant has been working with landowners, elected representatives and community members to discuss the development of the Project. Those discussions have been positive, and people have shown support for the Project. We have designed the Project to minimize or eliminate potential impacts of construction and operation.

Temporary construction activities are expected to have typical and relatively limited impacts given their intermittent nature, time of day restrictions, and use of best management practices. Increased traffic during construction will be managed and will cease when the Project is operational. The Applicant will obtain required permits and authorizations including, for example, Nationwide Permits from the U.S. Army Corps of Engineers. Following construction, except where solar energy generating equipment is located, roads will be restored to conditions as good as or better than those existing prior to construction.

The Applicant engaged consultants to study the potential environmental, ecological, cultural, and visual impacts of the Project. Those studies are attached to the Application and , as Ben Brazell of EDR explains in his separate testimony, show few or no expected impacts from the Project.

The Project has been sited to minimize adverse impacts. Proposed clearing of windrows has been minimized by careful layout and design. Although our studies found no listed species in the 2,100-acre Project Area, the Applicant will take measures to avoid impacts



to potentially suitable habitat for listed bat species by minimizing and seasonally limiting tree clearing where bat species could nest or forage in the summer months.

Sound levels from the operation of the Project will be inaudible for all participating and non-participating residences due to the silent operating nature of solar arrays and by locating central inverters away from residences.

Visual impacts of the Project will be mitigated by the flat nature of the terrain, the low profile of the solar panels, efforts to preserve natural vegetative buffers, and through selective vegetative screening, including landscaping with pollinator habitat.

Other operational impacts will be minimal. The Project will generate no wastewater (apart from the routine management of storm-water flows), no air emissions, and minimal solid waste. Operational activities apart from routine maintenance of the Project may include washing the solar panels (when not fully cleaned by rainfall) and controlling vegetative growth through predominantly mechanical means.

Lastly, the Applicant will implement a complaint resolution procedure to ensure any complaints regarding construction and operation of the Project are appropriately investigated and resolved.

**Q.17. How did the Applicant decide to locate the Project in Brown County?**

**A.17.** The Applicant chose to pursue the Project in southwestern Ohio for a variety of reasons. First, the area offers an attractive combination of strong electricity demand, stable power prices, and a robust transmission system. Generating power close to the large metropolitan areas of Cincinnati, Dayton and Columbus provides power where it is most needed, and also reduces issues of transmission congestion often presented by

generating power distant from load. The need for power in the area is strong and the associated transmission system can cost-effectively accommodate large amounts of additional power. Secondly, the Project was sited in the area known as Appalachian Ohio, which is a 32-county area of the State in particular need of investment and employment opportunities, to provide economic benefits where they are needed most. A map depicting the general location of the Project Area in Appalachian Ohio is attached as Figure 4 to the Application. Finally, as shown on the map attached as Figure 5 to the Application, southwestern Ohio enjoys some of the best solar resource in the State.

Within the general region, the study area was determined largely by the location of the Utility Substation. A key ingredient for generating the most affordable electricity for Ohio consumers with solar panels is identifying those locations at which substantial new generation may be injected without extensive and costly upgrades to the transmission system. Applicant's preliminary studies indicated that delivering power to Ohio consumers through the Utility Substation would be highly cost-effective. This has been confirmed by the results of the formal transmission studies conducted regarding the Project by PJM Interconnection, Inc.

**Q.18. Will the Applicant be sponsoring witnesses to support the Application in addition to your testimony?**

**A.18.** In addition to my testimony, the Applicant will present testimony by Ben Brazell, Principal at EDR relative to certain studies contained in the Application.

**Q.19 How will the Applicant address viewshed concerns?**

**A.19.** It is important to recognize that the Project will have a relatively modest visual impact on the area. The Project Area is quite flat, and the solar panels will be installed almost entirely on existing grades and so will follow the natural contours of the land. The solar panels will be no more than 15 feet high at their highest point (at the beginning and at the end of each day), and will have a much lower profile during most of the day. The rotation of the panels during the day, as they follow the path of the sun, will be too slow for observers to perceive. Thus, the Solar Fields will present a relatively low profile.

The Applicant, in order to mitigate viewshed impacts, will avoid removing existing vegetative buffers on the perimeter of the Project Area and employ industry best practices in designing a landscape plan. Windrows and forested areas will be maintained wherever possible to preserve existing views. The Applicant will also develop a landscape plan to develop a strategy to mitigate viewshed impacts where necessary and applicable. This plan will include, but is not limited to, options such as alternative fencing, planting of pollinator habitat along fences to soften and obscure the view, and robust screening with native shrubs or low growing trees in certain situations.

The mitigation measures to be used by the Applicant are industry best practices for mitigation developed in solar markets across the U.S. Open Road employees and MAP have been involved in the development of over two dozen operating solar projects throughout the U.S. and actively participate in a variety of industry groups from which these industry best practices arise. The institutional knowledge of developing and

designing well-sited, low-impact solar farms has been applied to the Project and is intended to minimize and prospectively address any complaints or concerns.

**Q.20. Have you reviewed the Staff Report issued on November 15, 2017 and does the Applicant have any concerns with or proposed revisions to any of the conditions recommended by the Staff in the Staff Report of Investigation?**

**A.20.** Yes, I have reviewed the Staff Report. The Applicant is generally satisfied with the Recommended Conditions but recommends several minor revisions. The Applicant recommends that the Board adopt the Modified Recommended Conditions contained in Attachment A to my testimony. The reasons for the revisions are as follows:

Condition 6 contained in the Staff Report should be modified so that the Applicant is required to provide copies of permits and authorizations, including all supporting documentation, to the Staff within seven days prior to the applicable construction activities as opposed to within seven days of issuance or receipt. Because of delays in transmission, this would seem to be a more orderly process for everyone involved.

Condition 10 requires the Applicant to describe how it will work to mitigate or resolve any issues with those who submit either a formal or informal complaint. While the Applicant will work to try to resolve or mitigate any issues, it would be impossible at this juncture to explain just how the Applicant will do so in the absence of having any formal or informal complaint as well as verification of a complaint. Condition 10 should be modified to eliminate a firm requirement to “work to mitigate or revolve” all complaints as well as incorporating in the complaint process how complaints will be resolved.

Condition 11 should be modified to require the Applicant to submit to Staff (and not file on the docket) a complaint summary to the Staff for the first five years of operation instead of in

perpetuity. Complaints, if any, will likely arise during the initial installation operation of the facility. The revised condition accounts for this time period by not requiring submittals for the life of the project. It also accounts for the need to avoid putting competitively sensitive information on the public docket with corresponding motions for protective orders (and additional expense to the Applicant). Submitting complaint summaries to Staff will accomplish the goal of information sharing in a cost-effective manner for all.

Condition 12 limits general construction activities to certain times. The Applicant recommends that impact pile driving be limited to the hours between 9:00 am and 6:00 pm Monday through Friday where such impact pile driving will take place within 300 feet of a residential dwelling versus the more general 10:00 a.m. to 5:00 p.m. recommendation by Staff. Pile driving is a one-time activity in any given area. Increasing the hours per day for impact pile driving, but still avoiding morning and evening activities, will result in a shorter period of disturbance in any given portion of the Project Area. The Applicant also recommends that hoe ram and blasting operations, if required, be limited to the hours between 10:00 a.m. and 4:00 p.m. versus 10 a.m. to 5 p.m.

Condition 13 contained in the Staff Report should also be modified to delete the phrase “including post locations, access roads, electric collection lines, and the project substation, in consultation with the Staff and the Ohio Historic Preservation Office (OHPO).” The consultation with Staff and OHPO will determine which areas will be surveyed, so the condition should identify specific areas such as post locations etc.

Condition 14 should be modified to require the Applicant to conclude an architectural survey of the areas within the areas of predicted visibility of the project as opposed to an architectural survey of the full 5-mile visual study area. Visibility of the project will be limited due to the

extremely flat nature of the Project Area, the number of trees and man-made structures in the vicinity, and low profile of the solar panels.

Condition 15 should also be modified. The Applicant recommends that it be required to prepare a landscape and lighting plan that addresses the aesthetic and lighting impacts of the facility where an adjacent non-participating parcel contains a residence with a direct “and open line” of sight to the “facility”. The revisions are intended to clarify what conditions require application of the landscape and lighting plan (such as seeing the facility versus seeing the “project area). The Applicant also recommends deleting the phrase “subject to Staff review” as that is redundant given the final sentence in the condition requiring Staff review.

Condition 16 contained in the Staff Report should be clarified to focus on functioning field tile drainage systems and provide for landowner input. The clarifications are shown on Attachment A to my testimony.

Condition 18 contained in the Staff Report should have the following sentence added for clarity: “Construction activities not adversely impacting the identified plant or animals may continue.”

Condition 25 should be eliminated in its entirety because there are no drinking water source protection plans that are applicable to this project.

Condition 26 should also be modified by inserting the word “applicable” before the phrase “fugitive dust rules” as those rules only apply in certain situations.

Finally, Condition 28 should be modified to require the Applicant to provide to the Board’s Staff a copy of any road use agreement. This accounts for a circumstance where a local authority may not require a road use agreement relying instead on a heavy hauling permit.

I believe the modifications presented to the conditions on Attachment A are reasonable and will result in the same level of oversight by the Board's Staff as well as methods to ensure the Project has minimal impacts on nearby residences.

**Q.21.**

**Does this conclude your direct testimony?**

**A.21.** Yes, it does. However, I reserve the right to offer testimony in support of any stipulation reached in this case or, if necessary, in rebuttal.

### **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. Also, I certify that a copy of the foregoing document was served by electronic mail upon the following person this 5<sup>th</sup> day of December, 2017:

Chad A. Endsley  
Chief Legal Counsel  
Ohio Farm Bureau Federation  
280 North High Street  
P.O. Box 182383  
Columbus, OH 43218-2383  
[cendsley@ofbf.org](mailto:cendsley@ofbf.org)

/s/ Michael J. Settineri  
Michael J. Settineri  
Stephen M. Howard



**ATTACHMENT A**  
**Modified Recommended Conditions**

(1) The facility shall be installed at the Applicant's proposed site as presented in the application and as modified and/or clarified by supplemental filings, replies to data requests, and the recommendations in this Staff Report of Investigation.

(2) The Applicant shall conduct a preconstruction conference prior to the start of any construction activities. Staff, the Applicant, and representatives of the prime contractor and all subcontractors for the project shall attend the preconstruction conference. The conference shall include a presentation of the measures to be taken by the Applicant and contractors to ensure compliance with all conditions of the certificate, and discussion of the procedures for on-site investigations by Staff during construction. Prior to the conference, the Applicant shall provide a proposed conference agenda for Staff review. The Applicant may conduct separate preconstruction conferences for each stage of construction.

(3) At least 30 days before the preconstruction conference, the Applicant shall submit to Staff, for review to ensure compliance with this condition, one set of detailed engineering drawings of the final project design, including the facility, temporary and permanent access roads, any crane routes, construction staging areas, and any other associated facilities and access points, so that Staff can determine that the final project design is in compliance with the terms of the certificate. The final project layout shall be provided in hard copy and as geographically-referenced electronic data. The final design shall include all conditions of the certificate and references at the locations where the Applicant and/or its contractors must adhere to a specific condition in order to comply with the certificate.

(4) If the Applicant makes any changes to the project layout after the submission of final engineering drawings, the Applicant shall provide all such changes to Staff in hard copy and as geographically-referenced electronic data. All changes will be subject to Staff review to ensure compliance with all conditions of the certificate, prior to construction in those areas.

(5) Within 60 days after the commencement of commercial operation, the Applicant shall submit to Staff a copy of the as-built specifications for the entire facility. If the Applicant demonstrates that good cause prevents it from submitting a copy of the as-built specifications for the entire facility within 60 days after commencement of commercial operation, it may request an extension of time for the filing of such as-built specifications. The Applicant shall use reasonable efforts to provide as-built drawings in both hard copy and as geographically-referenced electronic data.

(6) Prior to the commencement of construction activities in areas that require permits or authorizations by federal or state laws and regulations, the Applicant shall obtain and comply with such permits or authorizations. The Applicant shall provide copies of permits and authorizations, including all supporting documentation, to Staff within ~~seven days of issuance or receipt by the Applicant~~ seven days prior to the applicable construction activities. The Applicant shall provide a schedule of construction activities and acquisition of corresponding permits for each activity at the preconstruction conference.

(7) The certificate shall become invalid if the Applicant has not commenced a continuous course of construction of the proposed facility within five years of the date of journalization of the certificate.

(8) As the information becomes known, the Applicant shall docket in the case record the date on which construction will begin, the date on which construction was completed, and the date on which the facility begins commercial operation.

(9) At least 30 days prior to the preconstruction conference, the Applicant shall provide to Staff a copy of its public information program that informs affected property owners and tenants of the nature of the project, specific contact information of Applicant personnel who are familiar with the project, the proposed timeframe for project construction, and a schedule for restoration activities.

(10) At least 30 days prior to the facility becoming operational, the Applicant shall provide to Staff a copy of the complaint resolution process to address potential public grievances resulting from facility construction and operation. The resolution process must describe how the public can contact the Applicant, ~~and how the Applicant will work to mitigate or resolve any issues with those who submit either a formal or informal complaint.~~

(11) During the construction and operation of the project, the Applicant shall ~~file submit~~ to the Staff a complaint summary report in the case record by the fifteenth day of April, July, October, and December of each year for the first five years of operation. The report should include a list of all complaints received through its complaint resolution process, a description of the actions taken ~~to resolve regarding~~ each complaint, and a status update if the complaint has yet to be resolved.

(12) General construction activities shall be limited to the hours of 7:00 a.m. to 7:00 p.m., or until dusk when sunset occurs after 7:00 p.m. Impact pile driving shall be limited to the hours between 9:00 a.m. to 6:00 p.m. Monday through Friday where such impact pile driving will take place within 300 feet of a residential dwelling; ~~hammer ram;~~ and blasting operations, if required, shall be limited to the hours between 10:00 a.m. to ~~54:00~~ 5:00 p.m., Monday through Friday. Construction activities that do not involve noise increases above ambient levels at sensitive receptors are permitted outside of daylight hours when necessary. The Applicant shall notify property owners or affected tenants within the meaning of Ohio Adm. Code 4906-3-03(3)(B)(2) of upcoming construction activities including potential for nighttime construction activities.

(13) Prior to construction, the Applicant shall prepare a Phase I cultural resources survey program for archaeological work for the project area, ~~including post locations, access roads, electric collection lines, and the project substation, in consultation with Staff and the Ohio Historic Preservation Office (OHPO).~~ If the resulting survey work discloses a find of cultural or archaeological significance, or a site that could be eligible for inclusion on the National Register of Historic Places, then the Applicant shall submit a modification or mitigation plan detailing how such site(s) would be avoided or impacts would be minimized. Any such mitigation effort shall be developed in coordination consultation with the OHPO and submitted to Staff for review and acceptance.

(14) Prior to the commencement of construction, the Applicant shall conclude an architectural survey of the areas within view of the project~~-area~~. The Applicant shall submit to Staff a work program that outlines areas to be studied, with the focus on structures that are located near the project area. If the architectural survey discloses a find of cultural or architectural significance, or a structure that could be eligible for inclusion in the National Register of Historic Places, then the Applicant shall submit a modification or mitigation plan for Staff's acceptance. Any such mitigation effort shall be developed in coordination with the OHPO and submitted to Staff for review and acceptance.

(15) Prior to commencement of any construction, the Applicant shall prepare a landscape and lighting plan that addresses the aesthetic and lighting impacts of the facility where an adjacent non-participating parcel contains a residence with a direct and open line of sight to the project area~~facility~~. The plan shall include measures such as alternate fencing, vegetative screening, good neighbor agreements, or other measures ~~subject to staff review~~. The Applicant shall provide the plan to Staff for review and confirmation that it complies with this condition.

(16) The Applicant shall avoid, where possible, or minimize to the extent practicable, any damage to functioning field tile drainage systems and soils resulting from construction, operation, and/or maintenance of the facility in agricultural areas. Damaged field tile systems shall be promptly repaired to at least original conditions or modern equivalent at the Applicant's expense unless otherwise agreed to by the landowner. If applicable, excavated topsoil shall be segregated and restored in accordance with the Applicant's lease or other agreement with the landowner. Severely compacted soils shall be plowed or otherwise de-compacted during construction, if necessary, to restore them to substantially original condition unless otherwise agreed to by the landowner.

(17) The Applicant shall provide to Staff a copy of any arrangement or resulting resolution adopted by any county relating to the PILOT program within a reasonable time after issuance or receipt.

(18) The Applicant shall contact Staff, ODNR, and the USFWS within 24 hours if state or federal listed species are encountered during construction activities. Construction activities that could adversely impact the identified plants or animals shall be halted until an appropriate course of action has been agreed upon by the Applicant, Staff, and ODNR in coordination with the USFWS. Construction activities not adversely impacting the identified plant or animals may continue. Nothing in this condition shall preclude agencies having jurisdiction over the construction activities with respect to wildlife from exercising their legal authority over the facility consistent with law.

(19) The Applicant shall adhere to seasonal cutting dates of October 1 through March 31 for the removal of trees three inches or greater in diameter to avoid impacts to Indiana bats and northern long-eared bats, unless coordination with ODNR and USFWS allows a different course of action.

(20) Construction in loggerhead shrike preferred nesting habitat types shall be avoided during the species' nesting period of April 1 through August 1, unless coordination with ODNR allows a different course of action.

(21) The Applicant shall conduct no in-water work in perennial streams from April 15 through June 30, to reduce impacts to indigenous aquatic species and their habitat.

(22) The Applicant shall have a qualified environmental specialist on site during construction activities that may affect sensitive areas, as mutually agreed upon between the Applicant and Staff, and as shown on the Applicant's final approved construction plan. Sensitive areas include, but are not limited to, areas of vegetation clearing, designated wetlands and streams, and locations of threatened or endangered species or their identified habitat. The environmental specialist shall be familiar with water quality protection issues and potential threatened or endangered species of plants and animals that may be encountered during project construction.

(23) Prior to the preconstruction conference, the Applicant shall submit a vegetation management plan to Staff for review and confirmation that it complies with this condition. The plan would identify all areas of proposed vegetation clearing for the project, specifying the extent of the clearing, and describing how such clearing work would be done as to minimize removal of woody vegetation. The plan shall describe how trees and shrubs along access routes, at construction staging areas, during maintenance operations, and in proximity to any other project facilities would be protected from damage. The plan shall also describe the implementation of pollinator-friendly plantings and describe any planned herbicide use.

(24) The Applicant shall provide a construction access plan for review prior to the preconstruction conference. The plan would consider the location of streams, wetlands, wooded areas, and sensitive wildlife and plant species, and explain how impacts to all sensitive resources will be avoided or minimized during construction, operation, and maintenance. The plan would include the measures to be used for restoring the area around all temporary access points, and a description of any long term stabilization required along permanent access routes.

~~(25) The Applicant shall comply with any drinking water source protection plan for any part of the facility that is located within a Source Water Protection Area of a local village or city.~~

~~(26)~~(25) The Applicant shall comply with applicable fugitive dust rules by the use of water spray or other appropriate dust suppressant measures whenever necessary.

~~(27)~~(26) Prior to commencement of construction activities that require transportation permits, the Applicant shall obtain all such permits. The Applicant shall coordinate with the appropriate authority regarding any temporary or permanent road closures, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. Coordination shall include, but not be limited to, the county engineer, the Ohio Department of Transportation, local law enforcement, and health and safety officials. The Applicant shall detail this coordination as part of a final traffic plan submitted to Staff prior to the preconstruction conference for review and confirmation by Staff that it complies with this condition.

~~(28)~~(27) The Applicant shall provide the Board's Staff a copy of ~~the any~~ road use agreement(s) and the final delivery route plan 30 days prior to the preconstruction conference.

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**Case No(s). 17-1152-EL-BGN**

Summary: Testimony Direct Testimony of Douglas Herling electronically filed by Mr. Michael J. Settineri on behalf of Hillcrest Solar I, LLC