

**BEFORE
THE OHIO POWER SITING BOARD**

In the Matter of the Application of **Juliet Energy**)
Project, LLC for a Certificate of Environmental)
Compatibility and Public Need for a Solar Facility) Case No. 20-1760-EL-BGN
Located in Wood County, Ohio.)

DIRECT TESTIMONY OF

CLIFF SCHER

on behalf of

Juliet Energy Project, LLC

September 13, 2021

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

A.1 My name is Cliff Scher. I am a Senior Development Director at Lightsource bp. My business address is Lightsource bp., 400 Montgomery Street, 8th Floor, San Francisco, CA 94104.

Q.2 What are your duties as Senior Development Director at Lightsource bp?

A.2 I have worked in this area since 2008. Currently, my duties and experience include: developing energy infrastructure projects in the clean energy space, identifying project opportunities in the Eastern region of the United States (the PJM interconnect), and leading work across the project development lifecycle for solar power projects. These efforts include market analysis, site screening, landowner outreach, permitting, and late-stage development until transition to our construction team. While at Lightsource bp and 7X Energy (the predecessor of Lightsource bp), I have led the development of more than 600 MW of solar power projects in development, including more than 180 MW of solar power projects expected to enter construction within the next year. I also contributed to the development of 375 MW of operating wind power projects, and 140 MW of operating solar power projects. I have developed or diligenced projects in twelve states, and utilized this experience to lead development activity in the Eastern region of the United States.

Q.3 What is your education and professional background?

A.3 I received a Bachelor of Arts Degree in 1999 from Wesleyan University in Anthropology and a Masters in Business Administration, with coursework in Engineering Management, in 2005 from The George Washington University School of Business.

I worked with 7X Energy, Inc. for approximately the last three and one-half years, first as Director of Project Development and then, as Senior Development Director. I continue to

hold this role at Lightsource bp. Prior to 7X Energy, Inc., I was Director of Project Development for Distributed Sun LLC, and a Senior Manager of Distributed Generation at SunEdison, both in Washington D.C. Before these roles, I spent about four and one-half years as a consultant regarding renewable energy projects with Invenergy LLC. During my career, I also founded a consulting service for independent power producers, commercial, and industrial customers called Clean Energy Management Solutions, LLC.

Q.4 On whose behalf are you offering testimony?

A.4 I am offering testimony on behalf of the Applicant, Juliet Energy Project, LLC (“Juliet”).

Q.5 What is the purpose of your testimony?

A.5 The purpose of my testimony is twofold. First, I intend to provide a summary of the Juliet Solar Project (“Project”), including background information concerning Juliet’s Application and the Exhibits thereto, which were filed on the docket in this proceeding on March 12, 2021.¹ Second, I intend to summarize the primary components of the Application and sponsor its admission into evidence along with all Exhibits to the Application, all certificates of service, all required proofs of publications, and all other letters and documents required by OPSB rules.

Q.6 What is the general purpose of the Project?

A.6 The general purpose of the Project is to produce solar-powered electricity that will maximize energy production from solar resources to deliver clean, renewable energy 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

¹ All Exhibits to this testimony have been previously filed on the docket in this proceeding.

grid operated by PJM Interconnection, LLC (“PJM”) for sale at wholesale to the grid or under a power purchase agreement.

Q.7 Would you describe the proposed Project, the Project Area, and the power generation potential of the solar farm?

A.7 The Project is a 101 MW solar-powered electric generating facility for which Juliet has applied for a certificate to construct in Weston and Milton Townships, Wood County, Ohio. The Project will occupy approximately 670 acres comprised of private land secured by Juliet through agreements with the landowners.

The Project will be located on rural, previously disturbed land that has been mostly cleared for agriculture and is generally flat. The facility will consist of large arrays of photovoltaic (PV) panels (known as solar panels), which will be ground-mounted on a tracking rack system. The racking includes steel posts driven five to ten feet into the ground. The solar panel arrays will be fenced with gated entrances. The highest point of each module will not exceed 15 feet, and the fencing will not exceed seven feet.

The Project also includes access roads, electric collection lines, a collection substation, a short generation interconnection (gen-tie) line (approximately 50 feet), a laydown area for construction staging, an operation and maintenance (O&M) building, and pyranometers. The energy generated at the facility will deliver power to the American Transmission System, Inc.’s West 69 kV substation, located immediately to the north of the planned facility.

Q.8 Are Juliet’s Application Exhibits and responses to Staff Data Requests true and accurate to the best of your knowledge and belief?

- A.8** Yes, the Application and Exhibits (Company Exhibit 1) and all of Juliet's Responses to the Staff Data Requests (Company Exhibit 2) are true and accurate and were prepared under my direction.
- Q.9** **Were copies of the accepted Application served on local public officials and libraries in accordance with OAC Rule 4906-3-07(A)?**
- A.9** Yes, such service was made, and I am sponsoring Company Exhibit 3, which is proof of service of the Application.
- Q.10** **Did Juliet file and serve a copy of the letter sent to property owners and tenants with the plan or contiguous to the plan site pursuant to OAC Rule 4906-3-03(B)?**
- A.10** Yes. A letter was sent on December 28, 2020, to property owners and tenants within the plan site or contiguous to the plan site announcing that the Public Informational Meeting would be held on January 20, 2021. (See Company Exhibit 4.)
- Q.11** **Did Juliet cause notice of the Public Informational Meetings, the Application, and the hearing dates to be published in the local newspaper?**
- A.11** Yes. Such notices were published in the Sentinel-Tribune at the appropriate time. Proof of publication in this newspaper was filed on the docket on January 12, 2021. (See Company Exhibit 5.)
- Q.12** **Please list all consultants Juliet retained to prepare its Application and Exhibits, including for each the respective areas of responsibility.**
- A.12** Under my direction and supervision, Juliet worked with Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.C.P. ("EDR") as the lead consultant on the Application. EDR assisted in coordinating the studies

used in the Application and Exhibits. I directed and supervised consultants in the following areas of responsibility:

- Hull & Associates, Inc.: Route Evaluation Study (Company Exhibit 1, at Exhibit B), Hydrology and Geotechnical Desktop Study (Company Exhibit 1, at Exhibit C);
- EDR: Socioeconomic Report (Company Exhibit 1, at Exhibit D), Cultural Resources Study (Company Exhibit 1, at Exhibit G), Public Information Meeting Questions & Answers (Company Exhibit 1, at Exhibit H), Complaint Resolution Plan (Company Exhibit 1, at Exhibit J), Erosion and Sediment Control BMPs (Company Exhibit 1, at Exhibit M), Visual Resource Assessment (Company Exhibit 1, at Exhibit P); Drain Tile Maintenance Plan (Company Exhibit 1, at Exhibit Q).
- Cardno, Inc.: Ecological Assessment (Company Exhibit 1, at Exhibit E); Cultural Resources Workplan (Company Exhibit 1, at Exhibit F);
- RSG: Noise Assessment (Company Exhibit 1, at Exhibit G);
- PJM: PJM Interconnection Studies (Company Exhibit 1, at Exhibit I);
- Terracon Consultants, Inc.: Preliminary Geotechnical Engineering Report (Company Exhibit 1, at Exhibit L); and
- 7X Energy, Inc.: Decommissioning Plan (Company Exhibit 1, at Exhibit K), Glint and Glare Analysis (Company Exhibit 1, at Exhibit N), Vegetation Management Plan (Company Exhibit 1, at Exhibit O).

Q.13 Do you believe the Project will have a positive impact on the local community?

A.13 Yes. As also noted in the Staff Report of Investigation, the Project is expected to create approximately 618 construction jobs for the State of Ohio during the construction period and 13 long-term operational jobs for the State of Ohio. Additionally, the Project would generate between \$707,000 and \$909,000 annually based on a payment in lieu of taxes (“PILOT”) plan in which Juliet would pay between \$7,000/MW and \$9,000/MW annually for a 101 MW facility.

The Project will also aid regional development by increasing local tax revenues. The Project is consistent with agricultural industry support, as the facility will provide supplemental income to farmers and the land can be returned to agricultural production after decommissioning.

Juliet engaged local leaders including the Mayor of the Village of Weston (Jeremy R. Schroeder), and the President of the Village Council (Shad Kendall). Those conversations included clear expressions of support for the Project. Juliet also engaged in voluntary extensive community engagement efforts to ensure that the neighboring properties would not be negatively impacted by the facility. For example, Juliet collaborated with a group of 20+ neighbors (Weston Area Solar Farm Task Force) and, based on feedback from this group, agreed to increase the non-participating residence setback to a requested minimum of 100 feet from the PV panel area fence line to non-participating residential property lines. Juliet also voluntarily committed to installing enhanced vegetative screening to mitigate impacts to adjacent non-participating residences. In addition to these commitments, as a result of Juliet’s active engagement with non-participating neighbors, 10 neighbors entered into Good Neighbor Agreements with Juliet to date, with additional agreements expected in the near future.

Q.14 Are you aware that the OPSB must make certain determinations under Ohio Revised Code (“R.C.”) 4906.10 before issuing the certificate for which Juliet has applied?

A.14 Yes. I have been advised there are eight criteria considered by the OPSB in making its decision whether or not to issue a certificate.

Q.15 Does the Application meet Juliet’s obligation to make the required showings under R.C. 4906.10?

A.15 Yes. The Application and Exhibits thereto, enable the OPSB to determine Juliet met each of the eight criteria under R.C. 4906.10.

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

A.16 Yes. From the inception of the Project through the studies completed in connection with the Application, Juliet worked with landowners, consultants, and the community to minimize or eliminate the impacts of construction and operation of the Project.

With respect to construction, activities are expected to have typical and relatively limited impacts as they are temporary, intermittent, subject to time-of-day restrictions, and Juliet will use best management practices. Increased traffic during construction will be managed with no expected road closures and will end when the Project is operational. Juliet will obtain all required permits and authorizations.

With respect to operations, on behalf of Juliet, I engaged, directed, and supervised consultants to study the potential environmental, ecological, cultural, and visual impacts of the Projects. (See Company Exhibit 1, at Exhibits C-G, L-M, and P.)

Among these, Juliet requested study of the Project Area to determine the presence of threatened or endangered species. The ecological study, performed by Cardno, Inc., revealed only that the Project Area includes the historical range and presence of the Indiana

bat and the northern long-eared bat and is not of concern for other listed species. (Company Exhibit 1, at Exhibit E.) Juliet will avoid impacts to these bat species by minimizing and seasonally limiting tree-clearing activities during the proscribed months.

Juliet's Noise Assessment, performed by RSG, resulted in a finding that any noise impacts will be limited to construction. (Company Exhibit 1, at Exhibit G). Consistent with this assessment, construction noise will be minimized by practices such as limiting hours of work, locating staging away from sensitive receptors, and controlling vehicle movement to prevent backup alarms. Once operational, the ambient noise level will be higher than the Project operational noise. As a result, the Project will be essentially inaudible for participating and non-participating residences.

Visual impacts of the Project were studied by EDR and determined to be minimal. (Company Exhibit 1, at Exhibit P). As set forth in this study, visual impacts of the Project will be mitigated by the flat terrain, low profile of the solar panels, efforts to preserve existing vegetation, and by adding vegetative screening, including the use of pollinator habitat in landscaping.

Additionally, Juliet's studies determined that there will be no impacts to wetlands and surface waters. Similarly, the Project will generate no wastewater, no air emissions, and minimal solid waste. There are no expected aviation concerns as there are no air fields within five miles of the Project Area.

To the extent there are concerns, Juliet will implement a complaint resolution procedure to ensure any complaints regarding construction and operation of the Project are appropriately investigated and addressed. (Company Exhibit 1, at Exhibit J).

Q.17 How did Juliet decide to locate the Project in Wood County?

A.17 Juliet selected the Project site using data and considering a number of factors. These include the availability and quality of solar resource, proximity to the bulk power transmission system, topography, and local land use. Data from the National Renewable Energy Laboratory's ("NREL") U.S. National Solar Radiation Database, along with site visits and capacity analysis, showed that the northwestern region of Ohio, including Wood County, has suitable solar resources. Additionally, existing bulk transmission lines are located within the vicinity of the facility in Wood County. Land use in Wood County is primarily agricultural and characterized by open spaces suitable for hosting a utility- scale solar project. The Project Area is situated south of the Michigan and Ohio border and close to Interstate 80/90 for transportation purposes.

Q.18 Will the Project adversely impact cultural historic resources?

A.18 Few cultural or historic resource impacts are anticipated, and those have been minimized. Juliet enlisted and directed Cardno to gather information and complete a cultural resources review for a two-mile radius around the Project. The studies revealed nine archaeological sites, four cemeteries, and eleven historic structures within the study area. Of those, only two archaeological sites, which consist of historic-era sites, are located within the Project area and recommended for avoidance. On March 23, 2021, the Ohio State Historic Preservation Office concurred with Juliet's historic Phase I Archaeological Reconnaissance.

Q.19 How will the Project protect existing drain tile in the Project Area?

A.19 With assistance from consultant EDR, Juliet developed and included as Exhibit Q to its Application a Drain Tile Maintenance Plan that will aid protection of existing drain tile in the Project Area. Juliet also agreed to repair or replace drain tiles damaged during

construction with modern, functional equivalent systems and to restore land temporarily impacted during construction to its original use. Juliet consulted with landowners and studied records and GIS data to determine the location of drain tile mains, and committed to trying to locate drain tiles as accurately as possible prior to construction.

Q.20 How will Juliet address viewshed concerns?

A.20 At my direction and supervision, EDR performed a Visual Impact Assessment (see Company Exhibit 1, at Exhibit P). The visual impact of the Project is relatively modest, as the area is flat and the solar panels are low-profile. Juliet will also take additional steps to minimize visual impact. These include avoiding removing existing vegetation when possible and using best practices in designing a landscaping plan. To the extent there is a visual impact to an adjacent, non-participating parcel containing a residence with a direct line of sight, Juliet will use landscape management and vegetative buffers to mitigate effects.

Q.21 Will the Project comply with applicable safety and equipment standards?

A.21 Yes.

Q.22 Did you attend the Local Public Hearing in this proceeding?

A.22 Yes, I attended the Local Public Hearing held on September 8, 2021.

Q.23 What concerns were raised at the Local Public Hearing and how is Juliet addressing these concerns?

A.23 A number of witnesses expressed concerns about the Project, which generally fell into the following three categories: (1) visual and aesthetic impacts to neighbors; (2) decommissioning; and (3) compatibility with the rural character of the surrounding area. I will address each of these concerns.

First, with respect to the visual and aesthetic impacts to neighbors, Juliet addressed this concern in its response to the OPSB Staff's Third Data Request.² As set forth in that response, Juliet voluntarily collaborated with the Weston Area Solar Farm Task Force and agreed to increase the non-participating residence setback to a minimum of 100 feet from the PV panel area fence line, and committed to installing enhanced vegetative screening to mitigate visual impacts to adjacent non-participating residences.

Further, as set forth in that response, Juliet proposes as follows:

The Applicant proposes to use vegetation to help screen views of the proposed solar facility, improve the aesthetics of the project, and provide ecological and wildlife habitat and mitigation of visual impacts. A Landscape Mitigation Plan (Appendix C of Exhibit P in the Application) was developed to suit the climate and match the existing natural and vernacular landscapes present in the area surrounding the Juliet Solar Site. The conceptual planting strategies, or "modules", included use native species and intentionally mimic the character of the adjacent landscape to minimize and mitigate the project's visual impact. These strategies have been developed to provide flexible solutions that fit both the scale of the Juliet Solar Facility and the visual character of specific settings. Locations of planting modules were selected for areas otherwise open or have uninterrupted views of the PV arrays and have the potential to result in substantial visual effects. These areas include open fields adjacent to roadsides, thin/partial hedgerows abutting neighboring residences, and areas adjacent to residences and/or resources throughout the Project Area.

If solar panels, fencing or other aboveground Project facilities are installed in an area within 500 feet of a residence located on a directly adjacent property, Juliet Solar will plant a vegetative buffer consisting of evergreen and native multi-stem trees and thick shrubs to help buffer the view of the solar panels in that area from the Neighbor Property. Juliet Solar shall maintain vegetative screening for the life of the facility and shall replace any failed plantings so that, after five years, at least 90 percent of the vegetation has survived. Additionally, in a modification to the simulation and schematic shared as "Module 3 – Adjacent house Hedgerow", an additional row of evergreen trees will be placed within the diagramed module 3, doubling the density and number of evergreens within the vegetative buffer.

² Juliet Energy Project, LLC's Response to OPSB Staff's Third Data Request (Dated July 22, 2021), filed August 2, 2021.

Second, with respect to concerns regarding Project decommissioning, Juliet proposed a robust Decommissioning Plan in its Application (Company Exhibit 1, at Exhibit K). I also note that the OPSB Staff Report of Investigation recommends the following certificate condition (recommended Condition 29, p. 46, OPSB Staff Report and Recommendation):

At least 30 days prior to the preconstruction conference, the Applicant shall submit an updated decommissioning plan and total decommissioning cost estimate (with line items for all necessary steps to restore/decommission the site) without regard to salvage value on the public docket that includes: (a) a provision that the decommissioning financial assurance mechanism include a performance bond where the company is the principal, the insurance company is the surety, and the Ohio Power Siting Board is the obligee; (b) a timeline of up to one year for removal of the equipment; (c) a provision to monitor the site for at least one additional year to ensure successful revegetation and rehabilitation; (d) a provision where the performance bond is posted prior to the commencement of construction; (e) a provision that the performance bond is for the total decommissioning cost and excludes salvage value; (f) a provision to coordinate repair of public roads damaged or modified during the decommissioning and reclamation process; (g) a provision that the decommissioning plan be prepared by a professional engineer registered with the state board of registration for professional engineers and surveyors; and (h) a provision stating that the bond shall be recalculated every five years by an engineer retained by the Applicant.

This proposed condition adopts the decommissioning standard reflected in the recently passed 24 Ohio Senate Bill 52, which will become effective later this year. Specifically, under this standard, the performance bond amount to assure decommissioning will exclude salvage value. Juliet does not oppose this condition and anticipates entering into a Stipulation with the other parties to include this condition. Further, Juliet is amenable to the OPSB Staff's recommendation for an updated decommissioning plan to be submitted prior to the preconstruction conference.³

Third, with respect to the Project's compatibility with the rural character of the surrounding area, Juliet has taken a number of measures to mitigate any impact to the area. As

³ OPSB Staff Report, at 16-17.

previously set forth in my testimony, Juliet collaborated with the Weston Area Solar Farm Task Force on setbacks and screenings to minimize the visual impact to the community. Further, the Project will not generate loud noises, odors, emissions, or waste.

Juliet will be a responsible long-term steward of the land. The Project will utilize a ground cover of native grasses and pollinator plants to absorb precipitation, provide species habitat, minimize the need for herbicides, and filter stormwater to reduce the potential for erosion and sedimentation. This approach to vegetation within the Project Area will facilitate the long-term health of the soil. After the Project is decommissioned, the land can return to productive agricultural use.

In these ways, the Project is compatible with the rural character of the area, especially when compared to other potential uses. Juliet notes the Staff Report's conclusion that "[t]he project is consistent with agricultural industry support, in that the facility would provide supplemental income to farmers and the land could be returned to agricultural production upon decommissioning."⁴

Q.24 Have you reviewed the Staff Report issued on August 24, 2021, and does Juliet have any concerns with or proposed revisions to any of the Conditions recommended by the Staff in the Staff Report?

A.24 Yes, I have reviewed the Staff Report. Juliet is generally satisfied with and amenable to the Recommended Conditions. However, in keeping with its commitment to environmental responsibility, Juliet does request the following modification, indicated in bold:

Recommended Condition 30: At the time solar panel end of life disposal, retired panels marked for disposal shall be sent to an engineered landfill with various barriers and methods designed to prevent leaching of materials into soils and

⁴ OPSB Staff Report, at 11

groundwater. **Nothing in this condition shall prevent Juliet from recycling panels as possible and appropriate.**

Q.25 Does this conclude your direct testimony?

A.25 Yes, it does. However, I reserve the right to offer testimony in support of any stipulation reached in this case, or in rebuttal, if necessary.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing Direct Testimony of Cliff Scher was served via electronic mail upon the parties of record listed below this 13th day of September 2021:



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Summary: Testimony of Cliff Scher on behalf of Juliet Energy Project, LLC electronically filed by Ms. Megan Zemke on behalf of Borchers, Dylan F