

BEFORE THE OHIO POWER SITING BOARD

In the Matter of the Application of	)	
Kingwood Solar I LLC for a Certificate	)	Case No. 21-117-EL-BGN
of Environmental Compatibility and	)	
Public Need	)	

INITIAL POST-HEARING BRIEF OF KINGWOOD SOLAR I LLC

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I. INTRODUCTION

The nation, indeed the entire world, is attempting to lessen its dependency on coal and oil and gas, and increase its support of clean, renewable energy in an effort to create healthier, more stable communities free from energy supply and pricing volatility. These technologies require large tracts of land to be workable and those large contiguous tracts occur mainly in agricultural areas. And, as is customary with any development project that modifies land use, some number of citizens in the local area will not support the change, taking a “not in my backyard” position. In this case, that includes the local governmental entities that have intervened in this project.

But it is not the Board’s job to consider or to defer to local governmental and public opinion when deciding whether to approve an electric generation facility – ignoring all other benefits, including producing clean, reliable, renewable energy for Ohio, and bringing jobs and income to the State of Ohio. The legislature created the Board to oversee all energy developments and set forth eight criteria under R.C. 4906.10(A)(6) that are to be met. The Board, however, has recently reinterpreted the public interest, convenience and necessity criterion to mean that unsubstantiated “not in my backyard” objections are now weighted more heavily than any other factors and in a way that has never been the test for many years.

It is time for the Board to return to prior precedent and intent, and acknowledge that its statutory duty is to balance all competing interests by adhering to the express language of the eight statutory criteria, not defer to a vocal local opposition. If the standard now becomes that local public opinion of any volume can kill a project, this will result in severe regulatory uncertainty for business in Ohio, which will tamp what is a large source of economic and jobs growth potential for the state. That is contrary to the role of the Board in this proceeding, on a project that is fully grandfathered under Senate Bill 52.

That role should be to follow the express language of R.C. 4906.10(A). Applying the statutory criteria, the Board should find that Kingwood Solar (“Kingwood” or “Applicant”) has provided sufficient evidence including the filed Application, responses to Staff data requests, witness testimony and the conditions in the Joint Stipulation and Recommendation (“Joint Stipulation”) to warrant the Board’s issuance of a certificate of environmental compatibility and public need for the Kingwood Solar Project (the “Project”).

- **Staff did not Find any Technical Reason to Deny a Certificate**

It is telling that Staff, taking into account its recommended conditions, failed to find any technical issues with the Project which would prevent the issuance of a certificate. Importantly, Kingwood has sufficiently addressed each of the concerns raised by the public, Citizens for Greene Acres intervenors, and local officials for Cedarville, Miami, and Xenia Townships. These concerns are related to noise, decommissioning, local ecology, land use, local and state economy, and aesthetic impacts. Staff itself concluded that the Project will not present an adverse impact to existing land use, cultural and recreational resources; noise would be minimal; and that Kingwood identified an appropriate decommissioning plan.

- **Staff Agreed that Major Economic Benefits Would Accrue from the Project**

The Board’s Staff also recognized that the Project will have significant economic benefits to the State and to the local communities. The Project is projected to have a positive impact on the local community and the state of Ohio in general. The Project will create **\$6.75 million annually** in new economic output in Ohio, of which **\$5.3 million** will be generated in Greene County specifically. Assuming a 35-year project life, **\$55 - \$61 million** of tax revenue is projected to be generated for Greene County and local taxing jurisdictions. Local school districts alone are anticipated to gain between **\$28 - \$40 million** in new tax revenues. Overall, the general public,

including citizens of Greene County and the State of Ohio, will be greatly served by the Project and the renewable energy generated by the Project.

- **A Majority of Greene County Residents Support the Project, and Kingwood has Added Even More Protective Conditions than Recommended in the Staff Report**

Contrary to Staff's assertion in the Staff Report that local public opinion is skewed against the Project, Kingwood has demonstrated that a majority of Greene County residents actually support the Project. A county-wide poll conducted by Public Opinion Strategies, one of the nation's leading public opinion firms, indicates approximately **63% of voters** in Greene County support the Project. While the Board should not be considering public opinion in its evaluation of the statutory criteria, if it does, it should not be swayed by Staff's summary of public opposition or the blanket opposition by the local governmental entities. Moreover, to address concerns expressed by local residents and public officials, Kingwood has committed to various conditions in the Joint Stipulation that **are more protective than many of the conditions originally proposed in the Staff Report of Investigation** ("Staff Report").

Notable commitments include removing **300 acres** from consideration for above-ground project equipment, increased residential setbacks (**250 feet** between non-participating residences and the Project's fence line and **500 feet** between non-participating residences and inverters), roadway setbacks (minimum of 300 feet from the public right-of-way to the Project fenceline for OH-72 and Clifton Road on the eastern portion of the Project and minimum of 200 feet from the public right-of-way to the Project fenceline for Clifton Road on the western portion of the Project), an additional **4,000 feet** in landscape screening, and frequent communications with local officials during the construction and operation of the Project.

- **The Last Minute Change to Staff's Recommendation is Suspect**

Lastly, the Board should not be persuaded by its Staff's recommendation in the Staff Report that the Project will not serve the public interest, necessity and convenience under R.C. 4906.10(A)(6). Staff's recommendation should not be considered and its witness testimony not given any weight considering that Staff did not consider the Project's statewide benefits when evaluating the criteria under R.C. 4906.10(A)(6). Staff's investigation is also suspect given that the Board's Executive Director directed a subordinate to solicit the local governmental entities' position on the Project the day before the Staff report was issued; the fact that Staff reversed its decision on the Project based solely on the Greene County Board of Commissioners passing a resolution opposing the Project; and the fact that Staff committed a number of material errors that are reflected in the Staff Report section on the R.C. 4906.10(A)(6) criteria.

- **The Board Should Issue a Certificate for the Project**

The Board, after considering the evidence before it, should issue a certificate to Kingwood for the Project. **Kingwood has met its burden of proof that the Project meets the eight criteria identified in R.C. 4906.10(A).** Kingwood has also established that the Joint Stipulation **satisfies the Board's three-prong test for stipulations.** And, contrary to what the opposition will argue, the mere unfounded opinions of the intervening governmental entities expressing opposition to the Project cannot be a basis for the Board to find otherwise. The decision to issue a certificate for this Project is not a local decision, but rather a decision that the General Assembly has specifically delegated to a state agency.

II. PROJECT OVERVIEW

Kingwood intends to build the Project as a 175 MW solar-powered generating facility on approximately 1,500 acres of private land ("Project Area") in Cedarville, Miami, and Xenia Townships in Greene County, Ohio. (Kingwood Ex. 1 at 2, 101.) The Project will consist of arrays of photovoltaic ("PV") modules, commonly referred to as solar panels, ground-mounted on

a metal racking system. (*Id.* at 7.) The Project will also consist of access roads, electrical collector cables, a meteorological station, a Project substation, and a 138 kV electric generation line that will connect to a utility-owned switchyard (*Id.* at 1.) The Project will occupy approximately 1,200 acres within the approximately 1,500-acre Project boundary. (Kingwood Ex. 107 at 13.)

Underground electrical interconnections at a voltage of 34.5-kV will be used to transmit generated electricity from the inverters to the Project substation, where it will be stepped up to 138-kV. (Kingwood Ex. 1 at 3.) From there, a short 138-kV gen-tie will connect the Project substation to the utility switchyard to transmit the Project's electrical output to the existing American Transmission Systems Inc. ("ATSI") Greene-Clark 138-kV transmission line. (*Id.*) The ATSI Greene-Clark 138-kV transmission line routes through the Project Area, as does a 345-kV transmission line that will not be utilized by the Project. (Kingwood Ex. 1 at 10; Kingwood Ex. 6 at 3.)

A. Kingwood has Reduced the Project Layout and Committed to Increased Setbacks

Significantly, Kingwood has reduced the Project layout and removed more than **300 acres** from consideration for above-ground project equipment. (Kingwood Ex. 107 at 13.) Setbacks have been also increased from residences (**250 feet** between non-participating residences and the projects' fence line and **500 feet** between non-participating residences and inverters) and designated cultural resources and heavily-trafficked roadways (200 feet and 300 feet between the project's fence line and Clifton Road and OH-72, respectively). (Jt. Ex. 1 at 4.) These acreage reductions and increased setbacks **mitigate any potential viewshed** of the Project from neighboring residences, travelling tourists or vehicle passengers. (Kingwood Ex. 107 at 13.) The increased setbacks **will address concerns about noise**, if any, and alleviate concerns about

impacts to tourism with regard to the John Bryan State Park, Glen Helen Nature Preserve, and Clifton Gorge. (*Id.* at 13-14.)

Additionally, Kingwood has committed to **an additional 4,000 linear feet of vegetative screening** since the original landscape screening plan was proposed, which now totals more than 47,000 linear feet. (Kingwood Ex. 18 at 2, Attach. A.) Figure 1 below shows the original Project layout and Figure 2 shows the current Project layout, which has been reduced by approximately 300 acres. (Kingwood Ex. 18, Attach. A; Kingwood Ex. 107 at 13.) Figure 3 is the updated landscape screening plan, which identifies the proposed screening and existing vegetative buffers located throughout the Project. (Kingwood Ex. 18, Attach. A.) It also demonstrates that a large portion of the Project will be screened either by natural buffers or the proposed buffers. (*Id.*)

Figure 1: Original Project Layout

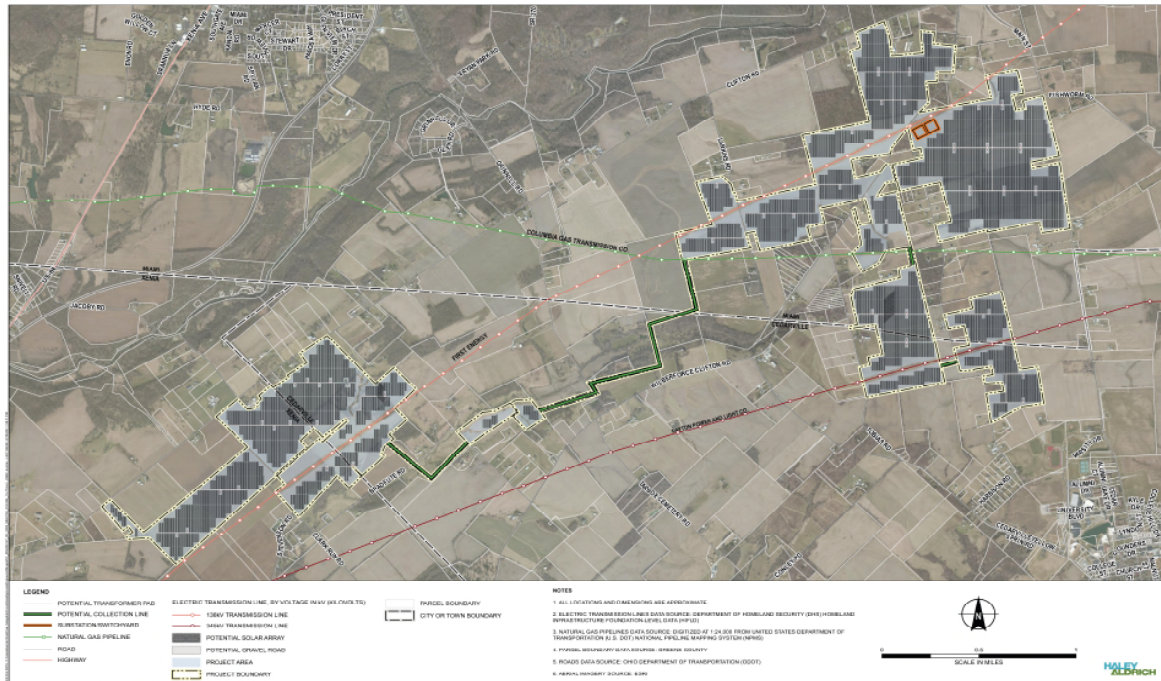
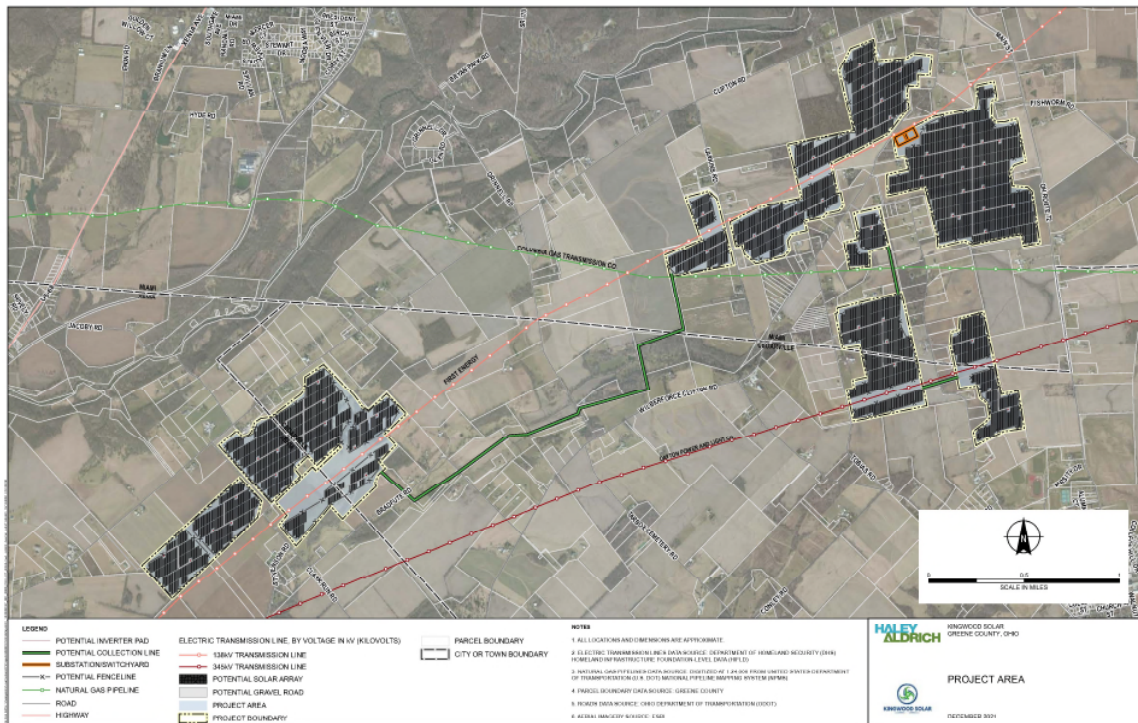


Figure 2: Reduced Project Layout



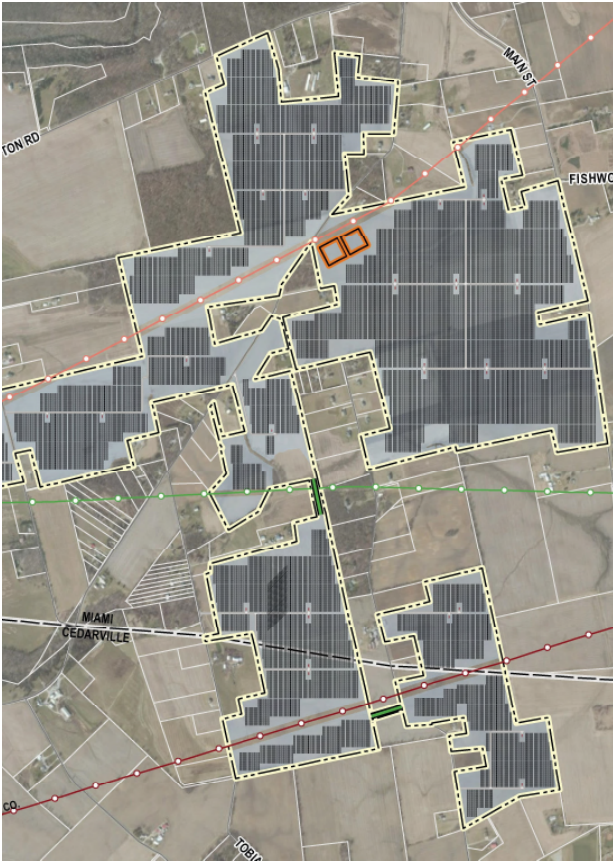


Figure 1: Original Layout (eastern portion of the Project)

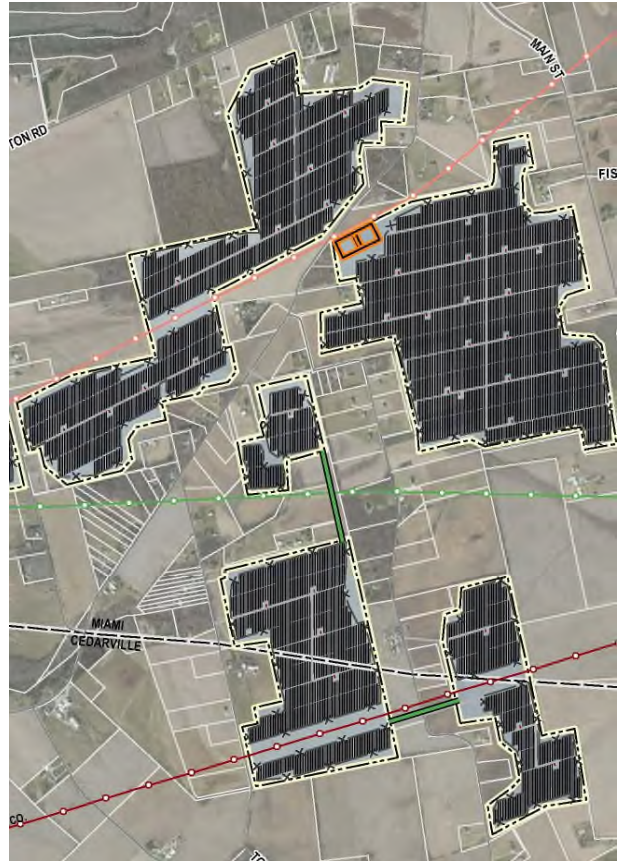
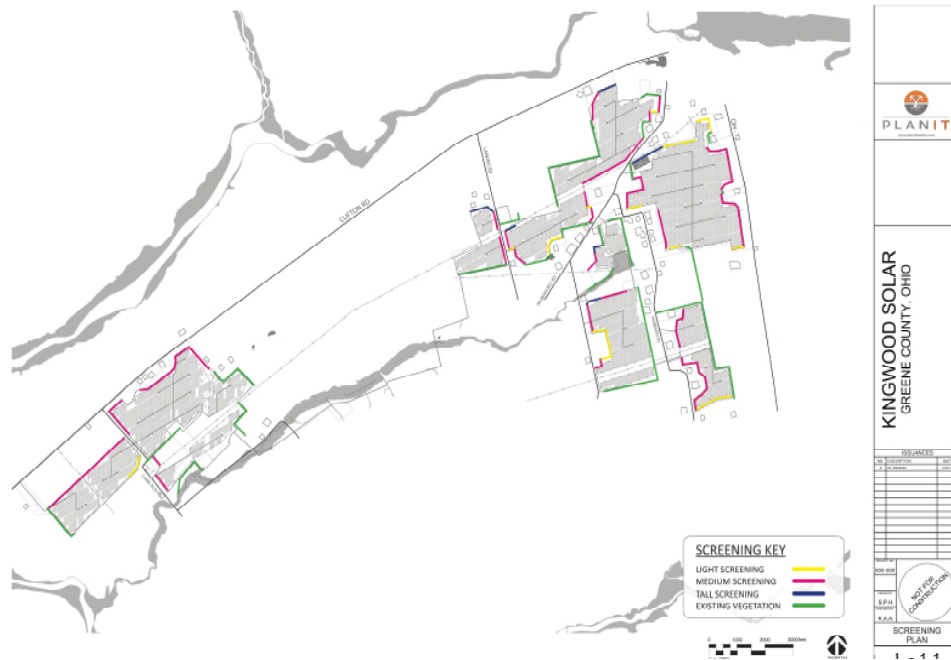


Figure 2: Reduced Project Layout (eastern portion of the Project)

Figure 3: Landscape Screening Plan (Existing and Proposed Vegetation)



B. The Joint Stipulation Includes 39 Protective Conditions

The design, construction and operation of the Project will be subject to the 39 conditions proposed in the Joint Stipulation filed by Kingwood and the Ohio Farm Bureau Federation (“OFBF”) on March 4, 2022. (Jt. Ex. 1.) Many of these conditions have been **previously approved** by the Board in solar project proceedings, as demonstrated in Exhibit A attached to this brief. The Joint Stipulation enhances several conditions recommended by Staff in the Staff Report filed on October 29, 2021, as a result of discussions with intervening parties. A redline comparison to the original Staff Report conditions and the Joint Stipulation conditions is attached to this brief as Exhibit B. Furthermore, as discussed fully in Section V(D) below, the Joint Stipulation includes additional conditions proposed by the Applicant intended to address specific concerns raised by intervening parties and the public.

Several conditions in the Joint Stipulation also require Kingwood Solar to directly engage with local public entities, including the Greene County Board of County Commissioners, the

Cedarville Township Board of Trustees, the Xenia Township Board of Trustees, the Miami Township Board of Trustees, the Greene County Engineer, In Progress, LLC, and the Greene Soil & Water Conservation District. (Jt. Ex. 1 at 3, 6, 7, 10, and 11.) Local governmental officials can choose to attend preconstruction conferences. (*Id.* at 3.) Kingwood will make **pre- and post-construction stormwater calculations** and will submit the calculation, along with a copy of any stormwater submittals made to the Ohio Environmental Protection Agency (“EPA”), to the Greene County Department of Building Regulation and the Greene County Soil & Water Conservation District. (*Id.* at 6.) If post-construction storm water best management practices are required, Kingwood will submit construction drawings, detailing any stormwater control measures, to the Greene County Department of Building Regulation and the Greene County Soil & Water Conservation District. (*Id.*)

Prior to commencement of construction, Kingwood will consult with the Greene County Soil & Water Conservation District **regarding seed mixes for the Project** and shall provide the tags on such seed mixes to the agency. (Jt. Ex. 1 at 7.) Kingwood will **coordinate** with public officials such as the Greene County Engineer and local law enforcement for **temporary road closures, road use agreements, driveway permits, lane closures, road access restrictions, and traffic control necessary** for construction and operation of the proposed Project. (*Id.*) Kingwood will also consult with the Greene County Soil & Water Conservation District and the Greene County Engineer to determine the **location of any tile** located in a county maintenance ditch to ensure that parcels adjacent to the Project area are protected from unwanted drainage problems due to construction and operation of the Project. (*Id.* at 10.)

The conditions in the Joint Stipulation coupled with the facility layout, associated setbacks, and vegetative screening reflect a well-designed facility.

III. KINGWOOD WITNESSES – EXPERIENCED AND CREDIBLE

During the hearing, in addition to the testimony of the Project’s sponsoring witness, Dylan Stickney, **Kingwood presented 12 expert witnesses**, each with significant experience in renewable generation, and solar facilities in particular. A summary chart identifying the witnesses, places of employment, the topic areas of their testimony, and references to their testimony is provided below for ease of reference.

NAME	COMPANY	TOPICS	TESTIMONY REFERENCES
Dylan Stickney, Development Manager	Vesper Energy	Sponsoring witness	• Kingwood Ex. 6 – Direct Testimony • Kingwood Ex. 7 – Supplemental Testimony • Kingwood Ex. 107 – Rebuttal Testimony • Tr. Vol. I at 14 – 234 • Tr. Vol. IX 2110 – 2170
Lynn Gresock, Principal Consultant	Haley & Aldrich, Inc.	Environmental and visual impacts	• Kingwood Ex. 8 – Direct Testimony • Kingwood Ex. 103 – Rebuttal Testimony • Tr. Vol. II at 248 – 360 • Tr. Vol. VIII at 1999 – 2006
Andrew Lines, Principal	CohnReznick LLP	Property valuation	• Kingwood Ex. 6 – Direct Testimony • Kingwood Ex. 105 – Rebuttal Testimony • Tr. Vol. II at 364 – 420 • Tr. Vol. VIII at 2070 – 2079
Alex Odom, Professional Engineer and Principal	Acentech	Noise impacts	• Kingwood Ex. 10 – Direct Testimony • Kingwood Ex. 11 – Supplemental Testimony • Kingwood Ex. 102 – Rebuttal Testimony • Tr. Vol. II at 422 – 486 • Tr. Vol. VIII at 1967 - 1997

NAME	COMPANY	TOPICS	TESTIMONY REFERENCES
Brent Finley, Ph.D. in Pharmacology and Toxicology/Managing Principal Health Scientist	Cardno, ChemRisk	Toxicity	• Kingwood Ex. 12 – Direct Testimony • Vol. III at 498 – 515
Dr. John Nealon, Ph.D. in Geology	Formerly of Geotechnology, LLC	Geology	• Kingwood Ex. 13 – Direct Testimony • Kingwood Ex. 106 – Rebuttal Testimony • Tr. Vol. III at 516 – 552 • Tr. Vol. VIII at 2081 – 2100
Noah Waterhouse, Professional Engineer and Director of Solar – Civil Engineering	EVS, Inc.	Drainage, drain tile, and stormwater impacts	• Kingwood Ex. 14 – Direct Testimony • Kingwood Ex. 15 – Supplemental Testimony • Tr. Vol. III at 555 – 584
Alex Roedel, Sr., Professional Engineer and Director, Design & Engineering	Nextracker, Inc.	Solar tracker performance	• Kingwood Ex. 16 – Direct Testimony • Tr. Vol. III at 586 – 636
Andrew English, Master of Landscape Architecture and Owner and Principal Landscape Architect	PLANIT Studios	Visual impacts/Landscaping	• Kingwood Ex. 17 – Direct Testimony • Kingwood Ex. 18 – Supplemental Testimony • Tr. Vol. III at 640 – 691
Lee Saunders, Engineer and Technical Specialist	Haley Aldrich	Transportation	• Kingwood Ex. 19 – Direct Testimony • Tr. Vol. III at 694 – 691
Jim Hobart, Partner	Public Opinion Strategies	Evaluation of public opinion	• Kingwood Ex. 104 – Rebuttal Testimony • Tr. Vol. VIII at 2008 – 2069
Mohammed R. Karim, Certified Public Accountant and Principal	Novogradac & Company LLP	Tax analysis	• Kingwood Ex. 108 – Rebuttal Testimony • Tr. Vol. IX at 2172
Amy Kramb, Architectural Historian	Kramb Consulting LLC	Architectural cultural resource analysis	• Kingwood Ex. 101 – Rebuttal Testimony • Tr. Vol. IX at 2175 – 2215

Given the experience, expertise, and knowledge demonstrated by these expert witnesses, the Board should be **fully confident in relying on their testimony** to determine that this Project meets the criteria under R.C. 4906.10(A).

IV. STANDARD OF REVIEW

The Board applies the statutory criteria under R.C. 4906.10(A) to determine whether a certificate should be issued for the Project. In doing so, the Board may consider the Joint Stipulation and its conditions, relying upon the Board's three-prong test for stipulations.

A. R.C. 4906.10(A) Statutory Criteria

Pursuant to R.C. 4906.10(A), "The board shall not grant a certificate for the construction, operation, and maintenance of a major utility facility, either as proposed or as modified by the board, unless it finds and determines all of the following eight criteria:

- (1) The basis of the need for the facility if the facility is an electric transmission line or gas pipeline;
- (2) The nature of the probable environmental impact;
- (3) That the facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations;
- (4) In the case of an electric transmission line or generating facility, that the facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems and that the facility will serve the interests of electric system economy and reliability;
- (5) That the facility will comply with Chapters 3704., 3734., and 6111. of the Revised Code and all rules and standards adopted under those chapters and under sections 1501.33, 1501.34, and 4561.32 of the Revised Code. In determining whether the facility will comply with all rules and standards adopted under section 4561.32 of the Revised Code, the board shall consult with the office of aviation of the division of multi-modal planning and programs of the department of transportation under section 4561.341 of the Revised Code;
- (6) That the facility will serve the public interest, convenience, and necessity;

- (7) In addition to the provisions contained in divisions (A)(1) to (6) of this section and rules adopted under those divisions, what its impact will be on the viability as agricultural land of any land in an existing agricultural district established under Chapter 929 of the Revised Code that is located within the site and alternative site of the proposed major utility facility. Rules adopted to evaluate impact under division (A)(7) of this section shall not require the compilation, creation, submission, or production of any information, document, or other data pertaining to land not located within the site and alternative site;
- (8) That the facility incorporates maximum feasible water conservation practices as determined by the board, considering available technology and the nature and economics of the various alternatives.

As discussed in Sections V(A) and V(D), the evidentiary record in this matter supports a Board finding that the criteria under R.C. 4906.10(A) are either satisfied or, in certain cases, not applicable.

B. The Stipulation Criteria are Authorized and Given Substantial Weight by the Board

Ohio Adm.Code 4906-2-24 **authorizes parties** to Board proceedings to enter into stipulations. Although not binding on the Board, pursuant to Ohio Adm.Code 4906-2-24(D), the terms of such an agreement are **accorded substantial weight**. The standard of review for considering the reasonableness of a stipulation has been discussed in a number of prior Board proceedings. *See, e.g., In re Hardin Wind LLC*, Case No. 13-1177-EL-BGN (Mar. 17, 2014). The ultimate issue for the Board's consideration is whether the stipulation, **which embodies considerable time and effort by the signatory parties, is reasonable and should be adopted**.

In considering the reasonableness of a stipulation, the Board has used the **following criteria**:

- (1) Is the settlement a product of serious bargaining among capable, knowledgeable parties?
- (2) Does the settlement package violate any important regulatory principle or practice?
- (3) Does the settlement, as a package, benefit ratepayers and the public interest?

On March 4, 2022, Kingwood filed a Joint Stipulation and Recommendation **as to the certificate conditions only** with the Ohio Farm Bureau Federation (collectively, the “Signatory Parties”). While not signed by all intervenors, this Stipulation resulted from discussions among the Signatory Parties as well as from the Applicant’s discussions with parties to this proceeding that participated in Stipulation discussions but have not signed this Stipulation. The Joint Stipulation **enhances and exceeds the conditions recommended by Staff** and should be adopted by the Board.

C. The Project is Fully Grandfathered under Senate Bill 52

The Project is not under the purview of Senate Bill 52 (“SB 52”), which became effective October 11, 2021. SB 52 allows county board of commissioners to have a say on where future solar and wind projects are sited. R.C. 303.58(A). However, this Project is explicitly grandfathered under that legislation. *See* 2021 Sub. S.B. No 52, Section 4(A); Kingwood Ex. 1 at Appendix C (system impact study issued December 2018); *and see* Tr. Vol I at 142-144 (noting facility study payment made prior to SB 52 effective date). Consequently, the Board should not apply any provision of SB 52 in its consideration of whether the Project meets the eight criteria identified in R.C. 4906.10(A) and its three-part test for stipulations. (Kingwood Ex. 6 at 39.) That includes allowing local governmental opinions and positions to dictate the outcome of this proceeding.

V. THE BOARD SHOULD ISSUE A CERTIFICATE FOR THE KINGWOOD SOLAR PROJECT

As thoroughly discussed in this brief and based on the evidence in the record, Kingwood Solar has met its burden of proof in this proceeding that the statutory criteria under R.C. 4906.10(A)(2) through (A)(8) are met. The need determination under R.C. 4906.10(A)(1) is not applicable to the Project.

A. Kingwood Meets the Public Interest, Necessity, and Convenience Criterion of R.C. 4906.10(A)(6)

This Board found that **13 utility scale solar projects in the state of Ohio satisfy the criterion under R.C. 4906.10(A)(6)** starting in May 15, 2018 through June 24, 2021.¹ Since June 24, 2021, however, the Board is now considering **a new factor in its evaluations – whether local governmental opinion is for or against the project**. That change by the Board of its interpretation of R.C. 4906.10(A)(6) is not reasonable and is **contrary to the express statutory language** which requires the Board to consider the public interest, **not the political landscape of the local public entities**. While the Board should adhere to the statutory language before it, the Kingwood Solar project satisfies the R.C. 4906.10(A)(6) criteria regardless whether the Board considers local governmental opinion in its evaluation (which it should not).

1. For Years, the Board has Consistently Evaluated R.C. 4906.10(A)(6) Without Considering Local Governmental Opinion

The Supreme Court of Ohio and the Board have evaluated R.C. 4906.10(A)(6) broadly by considering whether a proposed project benefits the general public. *In re Application of Duke Energy Ohio, Inc.*, 158 Ohio St. 3d 1501, 2020-Ohio-2803, 144 N.E.3d 438, at ¶ 30 (noting that division (A)(6) requires the Board to account for the “public”); *see also In re Application of Duke Energy Ohio, Inc.*, Case No. 16-253-GA-BTX, Entry on Rehearing (Feb. 20, 2022), at ¶ 35 (“[t]he

¹ These cases are: *In re Hardin Solar Energy LLC*, Case No. 17-773-EL-BGN, Opinion, Order & Certificate (Feb. 15, 2018); *In re Hillcrest Solar I, LLC*, Case No. 17-1152-EL-BGN, Opinion, Order & Certificate (Feb. 15, 2018); *In re Vinton Solar Energy LLC*, Case No. 17-774-EL-BGN, Opinion, Order & Certificate (Sept. 20, 2018); *In re Willowbrook Solar I, LLC*, Case No. 18-1024-EL-BGN, Opinion, Order & Certificate (Apr. 4, 2019); *In re Hecate Energy Highland, LLC*, Case No. 18-1334-EL-BGN, Opinion, Order & Certificate (May 16, 2019); *In re Hardin Solar Energy II, LLC*, Case No. 18-1360-EL-BGN, Opinion, Order & Certificate (May 16, 2019); *In re Nestlewood Solar I, LLC*, Case No. 18-1546-EL-BGN, Opinion, Order & Certificate (Apr. 16, 2020); *In re Atlanta Farms Solar Project, LLC*, Case No. 19-1880-EL-BGN, Opinion, Order & Certificate (Dec. 22, 2020); *In re Madison Fields Solar Project, LLC*, Case No. 19-1881-EL-BGN, Opinion, Order & Certificate (Jan. 21, 2021); *In re Yellowbud Solar, LLC*, Case No. 20-972-EL-BGN, Opinion, Order & Certificate (Feb. 18, 2021); *In re Big Plain Solar, LLC*, Case No. 19-1823-EL-BGN, Opinion, Order & Certificate (Mar. 18, 2021); *In re Hecate Energy Highland 4, LLC*, Case No. 20-1288-EL-BGN, Opinion, Order & Certificate (Mar. 18, 2021); and *In re Arche Energy Project, LLC*, Case No. 20-979-EL-BGN, Opinion, Order & Certificate (Apr. 15, 2021).

interests of the general public are fully considered under the public interest, convenience, and necessity criterion found in R.C. 4906.10(A)(6)").

To determine whether a particular project benefits the general public, the Board has generally considered various factors, including public interaction, economic benefits, public safety, energy generation, noise, electrical interference, aesthetic impacts, and local natural resources. *See, e.g., In re Big Plain Solar, LLC*, Case No. 19-1823-EL-BGN, Opinion, Order, and Certificate (Mar. 18, 2021), at ¶¶ 65–67 (noting applicant's interaction with public and analyzing public safety); *In re Aquila Fulton Cty. Power, LLC*, Case No. 01-1022-EL-BGN, Opinion, Order, and Certificate (May 20, 2002), at 12-13 (public need, economic impact, public safety, noise, aesthetic impact, electrical interference, and impact to natural resources); and *In re Duke Energy Madison, LLC*, Case No. 98-1603-EL-BGN, Opinion, Order, and Certificate (May 24, 1999), at 10-11 (public need, public safety, noise, and aesthetic impact).²

Recently, however, the Board **changed its interpretation of R.C. 4906.10(A)(6) by taking into account local government opinion** when deciding whether the Project is in the public interest, convenience and necessity. *In re Republic Wind*, Case No. 17-2295-EL-BGN, Opinion and Order (June 24, 2021), at ¶ 91. Noting that the R.C. 4906.10(A)(6) criterion should be examined broadly, the Board in *Republic Wind* provided this guidance regarding its analysis of this factor:

Public interest, convenience, and necessity should be examined **through a broad lens**. For example, this factor should consider the public's interest in energy generation that ensures continued utility services and the prosperity of the State of Ohio. * * * At the same time, this statutory criterion regarding public interest, convenience, and necessity, must also

² The Board also applied a similar analysis in these cases: *In re The Ohio State University*, Case No. 19-1641-EL-BGN, Opinion, Order, and Certificate (Sep. 17, 2020), at ¶¶ 90–93 (noting applicant's public interaction and analyzing economic impacts and safety); *In re Willowbrook Solar I, LLC*, Case No. 18-1024-EL-BGN, Opinion, Order, and Certificate (Apr. 4, 2019), at ¶¶ 51–53 (public interaction and public safety); *In re Guernsey Power Station, LLC*, Case No. 16-2443-EL-BGN, Opinion, Order, and Certificate (Oct. 5, 2017), at ¶¶ 43–45 (public interaction and public safety); and *In re Clean Energy Future-Lordstown, LLC*, Case No. 14-2322-EL-BGN, Opinion, Order, and Certificate (Sep. 17, 2015), at 21- 22 (public interaction, economic impact, and public safety).

encompass the local public interest, ensuring a process that allows for local citizen input, **while taking into account local government opinion** and impact to natural resources. As part of the Board's responsibility under R.C. 4906.10(A)(6) to determine that all approved projects will serve the public interest, convenience, and necessity, **we must balance projected benefits against the magnitude of potential negative impacts on the local community.**

In re Republic Wind, Case No. 17-2295-EL-BGN, Opinion and Order (June 24, 2021), at ¶ 91. In subsequent cases, the Board appears to have **expanded this interpretation to include local public opinion.** See e.g. *In re American Transmission Systems, Inc. (ATSI)*, Case No. 19-1871-EL-BTX, Opinion, Order, and Certificate (May 19, 2022), at ¶ 81.

Under this new interpretation, when determining whether negative impacts to a local community outweighs the general public's interest in energy generation, the Board appears to analyze the **extent of the project's demonstrated impact** on the local community **by considering the opinions** expressed by the local community, including local governmental officials. *In re Republic Wind*, Case No. 17-2295-EL-BGN, Opinion and Order (June 24, 2021), at ¶ 92-99. Unfounded opinions about a project's impact, however, are not sufficient to be considered as being adverse to the public interest. See, e.g. *In re Ross County Solar*, Case No. 20-1380-EL-BGN, Opinion, Order, and Certificate (Oct. 21, 2021), at ¶¶ 129, 135-36 (finding that despite the intervening township concerns about reduced property values, the project was not expected to decrease property values in the project area); *In re Alamo Solar I, LLC*, Case No. 18-1578-EL-BGN, Opinion, Order, and Certificate (June 24, 2021), at ¶ 293 (holding that despite local citizens' testimony, the project would not create more opportunity for crime in the locality and the applicant had proposed adequate safety measures and setbacks, risk mitigation plans, and that the amended joint stipulation benefited the public). **In other words, strong local opposition alone against a proposed project will not outweigh the benefits a project will generate for the general public.** And that public opinion is often just that – opinion, not by the evidence or testimony.

a. This New Interpretation has no Statutory Basis

Kingwood disagrees with the Board's new interpretation of R.C. 4906.10(A)(6) because **there is no textual or precedential basis** in the statute for the Board to take into account local government opinion for its examination of "public interest, convenience, and necessity" for considering such opinion in analyzing R.C. 4906.10(A)(6). "[T]he [B]oard is a creature of statute, it can exercise only those powers the legislature confers on it." *In re Black Fork Wind Energy, LLC*, 156 Ohio St.3d 181, 2018-Ohio-5206, 124 N.E.3d 787, ¶ 20. Words in a statute should be interpreted according to their customary meaning. *Weiss v. Pub. Util. Comm'n of Ohio*, 90 Ohio St.3d 15, 17, 2000-Ohio-5, 734 N.E.2d 775. While the Supreme Court of Ohio gives deference to administrative interpretation formulated by an administrative agency which has acquired substantial expertise in a subject area, **it has also held that the agency should respect its prior precedent.** *Bernard v. Unemp. Comp. Rev. Comm.*, 136 Ohio St.3d 264, 2013-Ohio-3121, ¶ 12, 994 N.E.2d 437; *In re Ohio Power Co.*, 144 Ohio St.3d 1, 2015-Ohio-2056, 40 N.E.3d 1060, ¶ 16. Further, while an agency may change its prior agency interpretation, courts must **only defer to it if the new interpretation is reasonable.** *In re Ohio Power Co.*, 144 Ohio St.3d 1, 2015-Ohio-2056, 40 N.E.3d 1060, at ¶¶ 16, 28.

b. The Standard is "Benefitting the General Public," not Deferring to Some Public Opinion

The Board's recent change in interpretation of R.C. 4906.10(A)(6) is unreasonable. There is no language under R.C. 4906.10(A)(6) or any other part of R.C. 4906.10 that authorizes the Board to take into account the local governmental (and political) opinions. And to the extent the Board is now examining local public opinion to determine whether a project is in general public's interest, that interpretation of R.C. 4906.10(A)(6) is also unreasonable. The term "public interest" is not synonymous to "public opinion." And inherent in this lack of support for the consideration

of local public opinion **alone** is that the analysis of the R.C. 4906.10(A)(6) squarely focuses on whether the proposed project will benefit the **general public**. Interpreting R.C. 4906.10(A)(6) to include consideration of “local government opinion” and the broader “public opinion” is unreasonable given the plain language of the statute. In other words, **relying upon unfounded local opinions**, a majority of which constitute public comments not in the record, in addition to relying on the opinion of local governmental agencies when evaluating a Project under R.C. 4906.10(A)(6) is unreasonable and outside the express statutory criterion.

c. But, Kingwood Meets Even the New Standard

Regardless, as explained further below in Sections V(A)(2) and (A)(3), Kingwood meets the “public interest, convenience, and necessity” standard under **both** the traditional review employed by the Board and the Board’s recent practice of considering local public opinion. As shown through the testimony Kingwood presented from **12 expert witnesses**, the Project will have minimal impacts on the Project Area. The project is also expected to **generate tremendous economic benefits, including \$6.75 million annually** during operation. Further, the local opinions expressed in this proceeding are not credible **as they do not identify any actual impact** to the Project Area. It is telling that the resolutions filed by local governmental entities **are vague, rely on generic statements** to claim the Project is incompatible in the proposed area because it is agricultural in nature, and allude to issues that have been comprehensively addressed by the Applicant. Indeed, the Board has not been previously “persuaded * * * that it is inexcusable to build an industrial facility along the perimeters of other people’s land in an agriculturally zoned area.” *In re Alamo Solar I, LLC*, Case No. 18-1578-EL-BGN, Opinion, Order, and Certificate (June 24, 2021), at ¶ 245.

The Board should find that the Kingwood Solar Project meets R.C. 4906.10(A)(6).

2. The Kingwood Solar Project is in the Public Interest, Convenience, and Necessity Under the Traditional Review of this Criterion

As explained in this Section, the Project meets certain factors which have been previously examined by the Board when analyzing R.C. 4906.10(A)(6), including economic benefits, public interaction, and public safety. Further, as extensively discussed in Section V(B), Kingwood meets other such identified factors, including the need for energy generation capacity, minimal noise impacts, electrical interference, natural resources impacts, and aesthetic impacts.

a. The Project will have a Positive Economic Impact on the Local Community and the State of Ohio

i. The Project Will Create New Economic Output and Jobs in Greene County and the State of Ohio

The Project is anticipated to create a large volume of positive economic activity in Ohio. Initially, the Project would create **180** full-time construction jobs, **152** indirect jobs, and **112** induced jobs, for a total of **444** Ohio jobs during the 16-month construction period. (Kingwood Ex. 107, Ex. A at 2.) The hundreds of construction jobs the Kingwood Solar Project will create can be filled by local qualified workers **from local unions** such as the Local 82 chapter of the International Brotherhood of Electrical Workers, and several full-time jobs during project operation, as well as ancillary jobs like landscape & vegetation maintenance, can also be filled by local, qualified personnel. (Kingwood Ex. 107 at 9.) These jobs are projected to generate **\$33.01** million of labor income and would **sustain an estimated 299 Ohio households during the 16-month construction period**. (*Id.*, Ex. A at 2.) During this time period, approximately \$58.90 million is expected to be spent on Ohio-sourced goods and services, including one-time Project costs. (*Id.*) This construction activity would directly and indirectly support **\$112.93** million of economic activity in Ohio. (*Id.*)

During the operational phase of the Project, the Project will create approximately **\$6.75 million in new economic output annually** in Ohio, most of which will be generated in Greene County. (Kingwood Ex. 107, Ex. A at 3.) The operating activities would result in the generation of \$2 million in state and local annual taxes, including approximately \$1.5 million of annual PILOT payments, which would largely support local municipalities and schools during the life of the Project. (*Id.*, Ex. A at 3.) Of note, Kingwood commissioned an update to its original economic impact study (Appendix D to the Application) to consider the net impacts of the loss of agricultural activity, which was a topic of questioning from Citizens of Green Acres during the Applicant’s case-in-chief. (Kingwood Ex. 107 at 8; Tr. Vol. IX at 2130.)

The addendum commissioned by Kingwood addresses **two important updates** since the original submission of Appendix D. (Kingwood Ex. 107, Ex. A.) First, it considers the impacts of additional financial commitments made by Kingwood and its impact on the community, which includes the good neighbor agreements, community donations, and the potential community benefit fund described in detail in the Section V(A)(2)(d). (Kingwood Ex. 107, Ex. A at 1.) Second, it considers the reduction in agricultural activity resulting from the Project site’s conversion from agricultural activity to solar energy production. (*Id.*) These two impacts were considered together and the net result of this updated study appears in the “Updated Permanent Operating Impacts in the State of Ohio” table appearing on page three of the addendum. (*Id.*, Ex. A at 3.)

A comparison with the corresponding table in the original economic analysis report is instructive here to show that despite the minor loss of revenue associated with agricultural activity, the Project will generate significant revenue for Greene County and the State of Ohio. The original report indicated that the Project was expected to create 23 permanent jobs in Ohio (including direct,

indirect, and induced jobs) and generate \$7.76 million annually in economic output. (Kingwood Ex. 1, Appx. D at 7.) In comparison, after including the net impact of additional financial commitments made by Kingwood and reduction in agricultural activity in the Project Area, the Project is still anticipated to create **15 permanent jobs** in Ohio (including direct, indirect, and induced jobs) and generate **\$6.75 million annually** in new economic output. (Kingwood Ex. 107, Ex. A at 3.) Though approximately \$1 million of output will be lost as a result of the decrease in agricultural activity, more importantly, the Project will generate **more than six times** that amount in economic output through its ongoing operations. (*Id.*) In Greene County particularly, despite the loss of agricultural activity, the Project will create **eight permanent jobs** and generate **\$5.3 million** of new economic output. (*Id.* at 5.)

Appendix D and the addendum to Appendix D attached to Mr. Stickney's rebuttal testimony provide ample support for the Board to conclude that the proposed Project will have a **tremendous** positive impact on the economies of Greene County and the State of Ohio.

ii. The Project will Create Significant New Tax Benefits, Especially for Local Schools

Local tax revenue is another important economic benefit that will be provided by the proposed Project, if approved, and these funds **will directly support the Cedar Cliff Local School District, the Xenia Community School District, and the Greene County Vocational School District**. (Kingwood Ex. 107, Ex. B at 3.) Kingwood commissioned a tax analysis from Novogradac & Company LLP ("Novogradac") to estimate the expected tax revenues to each jurisdiction in Greene County over the assumed 35-year-old life of the proposed Project. (Kingwood Ex. 108 at 1; Kingwood Ex. 107 at 9.) The tax analysis considers the amount of tax revenue that will be projected under two scenarios, a qualified energy project certification from the Ohio Development Services Agency ("PILOT") or a statutory assessment of real and tangible

personal property. (Kingwood Ex. 107, Ex. B at 2.) As Mohammed Karim from Novogradac testified, both taxing alternatives presents a significant tax revenue and the Project is estimated to create between **\$55 million to \$61 million** over the course of the Project’s 35-year operating life in new tax revenue for Greene County and local taxing jurisdictions. (Kingwood Ex. 108 at 3, Kingwood Ex. 108, Ex. A at 3.) Specifically, **local school districts alone are anticipated to gain between \$28 million to \$40 million** in new tax revenues over the Project’s 35-year operating life. (Kingwood Ex. 108, Ex. A at 3.) In the first year alone, the Project is projected to generate **more than \$1,500,000** in annual tax revenue above the Project Area’s current land use and tax assessments. (Kingwood Ex. 107 at 10.)

The summary chart below provides the breakdown of tax allocation to each taxing unit over the 35-year useful life of the Project under the two taxing scenarios (qualified energy project certification or a statutory assessment of real and tangible personal property).

Table 1 35-Year Allocation of Property Tax Revenue		
Taxing Units	Regular Assessment (\$)	PILOT \$9,000 Per MW (\$)
Greene County	12,827,322	21,142,785
Cedarville Township	1,769,653	1,226,845
Miami Township	4,651,029	3,224,414
Xenia Township	1,315,203	911,789
Cedar Cliff LSD	28,254,743	19,588,136
Xenia CSD	8,481,691	5,880,093
Joint Vocational School (JVS)	3,834,881	2,658,604
Health Services	710,163	492,334
Total	61,844,685	55,125,000

(Kingwood Ex. 107, Ex. B at 3.)

Based on this tax analysis and Mr. Karim's testimony, the Board should find that the significant tax revenue as a result of the Project weighs heavily in the public interest.

b. The Project will Not Negatively Impact Adjacent Property Values

The record in this proceeding establishes that the Project **will not negatively impact adjacent property values**. Andrew Lines of CohnReznick, who has over 19 years of real estate appraisal experience, testified that the Project will not have an impact on property values in the area surrounding the Project. (Kingwood Ex. 9 at 1, 8.) Mr. Lines is a designated Member of the Appraisal Institute and also a Certified General Real Estate Appraiser with active licenses in Florida, Georgia, Illinois, Indiana, New Jersey, Ohio, Kentucky, and the District of Columbia. (*Id.* at 1-2.) Mr. Lines has extensive experience in conducting property value impact studies and has completed over 25 such analyses and testified over 100 times about the potential impacts of solar projects on property values. (Tr. Vol. II at 366-67.) This Board has **previously accepted Mr. Lines' testimony in various proceedings**, including contested cases. *See, e.g., In re Harvey Solar I LLC*, Case No. 21-164-EL-BGN, Transcript Vol. I (Apr. 6, 2022) at 125-26; *In re Ross County Solar, LLC*, Case No. 20-1380-EL-BGN, Opinion, Order & Certificate (Oct. 21, 2022) (contested); and *In re Big Plain Solar, LLC*, Case No. 19-1823-EL-BGN, Opinion, Order & Certificate (March 18, 2021).³

³ Mr. Lines's testimony has also been accepted by the Board in the following cases: *In re Yellowbud Solar, LLC*, Case No. 20-972-EL-BGN, Opinion, Order & Certificate (Feb. 18, 2021); *In re AEUG Union Solar*, Case No. 20-1405-EL-BGN, Opinion, Order & Certificate (Feb. 17, 2022); *In re Sycamore Creek Solar, LLC*, Case No. 20-1762-EL-BGN, Opinion, Order & Certificate (Nov. 18, 2021), and *In re Dodson Creek Solar, LLC*, Case No. 20-1814-EL-BGN, Transcript (Apr. 27, 2022) at 48.

i. Detailed Expert Testimony was Presented on Property Values

Mr. Lines's testimony, in large part, was based on the property value assessment study he and his firm (CohnReznick) conducted for the Project, included as Appendix F to the Application. (Kingwood Ex. 1, Appx. F.) CohnReznick's study and analysis was thorough and in-depth, comparing homes adjacent to a solar project to other, similar homes removed from the solar project in order to understand the influence a proposed project may have on adjacent properties. (Tr. Vol. II at 369.) CohnReznick studied **11 established solar farms** in Indiana, Florida, Michigan, Minnesota, New York, North Carolina, and Virginia that are comparable to the Project, to determine whether existing solar energy uses had any measurable impact on the value of adjacent properties. (Kingwood Ex. 1, Appx. F at 2-3; Kingwood Ex. 9 at 4.) CohnReznick researched and analyzed properties adjacent to existing and established solar energy plants, the Target Group, focusing on rural and suburban areas with neighboring residential homes that are most comparable to the areas and adjacent uses of the proposed Project. (Kingwood Ex. 9 at 4.) Target Group sales were then compared to similar properties that are removed from any solar facility influence, referred to as the Control Group. (*Id.*) Among other things, in order for a property to be in the Control Group, it should **not be physically contiguous** to the proposed project nor have a view of the proposed project. (Tr. Vol. II at 371; Kingwood Ex. 1, Appx. F at 22.)

ii. A Comparative Analysis Demonstrates no Loss

The basic premise of this comparative analysis is to determine if proximity to solar energy uses results in any consistent and measurable impact on property values, which would be reflected by such factors as the range of sale prices, differences in unit sale prices, conditions of sale, and overall marketability. (Kingwood Ex. 9 at 4-5.) Importantly, CohnReznick excluded non-pertinent data points from its analysis, such as adjoining properties that sold at non-arm's length

transactions (e.g. transactions between related parties, bank-owned transaction, or between adjacent owners). (*Id.* at 6.) To confirm the study’s results, CohnReznick conducted interviews with market participants (e.g. appraisers, brokers, developers, county and township assessors, etc.). These interviews reaffirmed that there was no difference in price, marketing periods or demand for property directly adjacent to existing solar projects when compared to similar properties in the Control Group which are locationally removed from any solar energy uses’ influence. (Kingwood Ex. 1, Appx. F at 3, 105; Kingwood Ex. 9 at 6-7.)

Actual information from property sales in and near the Project Area support both the CohnReznick analysis and Mr. Lines’s conclusion that **he does not “expect the Project to be the cause of a decrease in property values in the project area.”** (Kingwood Ex. 105 at 8-9.) Specifically, Mr. Lines testified on rebuttal that three properties, 3373 Harbison Road, 2318 Stevenson Road, and 2681 Harbison Road, all sold at a market price despite public knowledge of the Kingwood Solar Project. (*Id.*) Likewise, Citizen for Greene Acres member P. Chance Baldwin testified that he purchased a property located at 3051 Harbison Road during August 2020 (well after the community knew about the Kingwood Solar Project). (Tr. Vol. IV at 925.) He testified that he sold the same property during August 2021. Even though the house was in disrepair, the property sold for list price, which was a price Mr. Baldwin felt reflected the value of the property. (*Id.* at 926, 930). **Consequently, despite the community knowing about the Project as early as 2017, home values in the area have not showed any marked decrease.** (Tr. Vol. IV at 926, 930; Kingwood Ex. 1 at 31; Kingwood Ex. 105 at 9.)

A property value study in the record published in September 2020 by a team at the University of Rhode Island and cited in Ms. Clay’s testimony also supports Mr. Lines’s testimony and conclusions. The study evaluated 208 solar facilities, 71,373 housing sales occurring within

one-mile of the solar facilities (Test Group), and 343,921 sales between one-to-three miles (Control Group). (Kingwood Ex. 105 at 3-4.) As Mr. Lines explained in his rebuttal testimony, the Rhode Island study utilized a hedonic regression model, allowing the team to isolate specific variables that could impact value, including isolating rural and non-rural locations. (Kingwood Ex. 105 at 3.)

While Mr. Lines had certain criticisms about the study (Tr. Vol. II at 412-15; Kingwood Ex. 1, Appx. F at 12), Mr. Lines testified that the study **actually confirms** the homes located in rural Cedarville, Miami, and Xenia Townships will not be impacted by the Project. (Kingwood Ex. 105 at 3-4.) The study defined “rural” as an area having a “population density of 850 people per square mile or fewer” and provided data which found **no negative impact to residential homes near solar arrays in rural areas**. (*Id.*) Of note, Xenia Township has an average density of 182 people per square mile, Miami Township has an average density of 182 people per square mile, and Cedarville Township has an average density of 143 people per square mile. (*Id.* at 4). Consequently, **none of the townships** where the Kingwood Solar Project is proposed have densities even close to the Rhode Island study definition of rural. (Kingwood Ex. 105 at 4.) Further, as Mr. Lines explained, the Rhode Island study only found negative externalities of solar arrays to occur only in **non-rural areas**, and even then, only accounted to a nominal decrease in value of 1.7%. (*Id.* at 3-4.)

iii. Witness Clay’s Testimony is Unreliable

As to Citizens for Greene Acres witness Mary Clay, the Board should also place no weight on her testimony. Notably, the Kentucky Power Siting Board has **rejected her analysis in five utility-scale solar proceedings**, one of which involved her opposition to a CohnReznick analysis

which was accepted by the Board. (Tr. Vol. V at 1124-27.) Ms. Clay's testimony is also replete with various issues, including:

- Ms. Clay has only completed three studies of solar farm impacts utilizing her independent research (she used data from another appraiser for her fourth study) and has not updated any of her studies with recent sales data, unlike Mr. Lines who routinely updates prior studies. (Tr. Vol. V at 1106, 1115, 1157-58.)
- Ms. Clay relied on an assessor's value for one of her studies (McBride Place Solar Study). (Tr. Vol. V at 119.) During cross-examination, Ms. Clay admitted that relying solely on appraisal values for a solar project damages study is not appropriate. (*Id.* at 1116.)
- Ms. Clay's opinions are biased as evidenced by her belief that good neighbor agreements are indicators of property value reductions and a "tacit admission of potential damage" (Tr. Vol. V at 1137, 1156-57) even though they are routinely used in the industry and recognized by this Board. *See, e.g., In re Tymochtee Solar, LLC*, Case No. 21-04-EL-BGN, Opinion, Order & Certificate (Mar. 17, 2022) at 41; and *In re AEUG Union Solar, LLC*, Case No. 21-1405-EL-BGN, Opinion, Order & Certificate (Feb. 17, 2022) at 34.⁴ She has also previously expressed that solar developers utilize such agreements to limit local opposition to solar farms. (*Id.* at 1141.)
- Ms. Clay's opinions are biased, as she believes Teflon film from panels and zinc from panel supports can contaminate the soils and kill microbes in the soil. (Tr. Vol. V at 1135.)
- Ms. Clay's opinions are biased as she believes solar projects can contribute to erosion. (Tr. Vol. V at 1134-35.)
- Ms. Clay failed to address a study prepared by Dr. Nino Abashidze from the Georgia Institute of Technology (October 20, 2020), entitled "Utility Scale Solar Farms and Agricultural Land Values." The study examined 451 solar farms in North Carolina and found no direct negative or positive spillover effect of a solar farm construction on nearby agricultural land. After construction, the study found a small, positive, option-value for land owners when agricultural land was located near transmission infrastructure. (Kingwood Ex. 105 at 4-5.)

These are just some of the issues with Ms. Clay's testimony and the studies that she relies upon for her opinions. Of the two witnesses, **Mr. Lines's testimony is by far more credible**, thorough, and reliable. The Board should rely on his testimony as it has done in many other proceedings.

⁴ The Staff Report in this proceeding also suggested the Applicant enter into good neighbor agreements in proposed Condition 16. (Staff Ex. 1 at 13, 49.)

In conclusion, Mr. Lines's testimony in this proceeding and the CohnReznick study are credible and justify a finding that the Project will not negatively impact property values. The Board sufficient evidence for the Board to find that the Project will have no impact on local property values.

c. The Project Further Benefits Public Interest via Additional Financial Commitments, Access to Clean Energy, and Preserving Agricultural Land

i. Landowners will Receive Significant New Income

Since the issuance of the comprehensive economic and fiscal impact report in March of 2021, which was submitted as Appendix D to the Application, several new Project developments positively affect the Project's estimated economic and fiscal impacts. (Kingwood Ex. 107, Ex. A at 1.) Kingwood will **pay approximately \$1,100,000 in annual land lease to local landowners**, escalating each year of operations. (Kingwood Ex. 107 at 10.) This is a substantial increase above the 2021 average lease rate for cropland, specifically corn and soybeans, in Ohio of ~\$200 per acre, or \$300,000 for the 1,500-acre Project Area. (*Id.*) Surely, local landowners' economic benefit should be considered as they are directly affected.

ii. The Project Offers Other Major Community Benefits

Other local benefits include community donations totaling \$100,000 to local organizations that Kingwood either already has or intends to offer donations to, including the Little Miami Conservancy and the Greene County Career Center. (Tr. Vol. IX at 2130; Kingwood Ex. 107, Ex. A at 1.) Kingwood is also offering good neighbor agreements totaling \$757,000 to 65 non-participating property owners. (Tr. Vol. IX at 2152; Kingwood Ex. 7 at 8, Kingwood Ex. 107, Ex. A at 1.) These offers include a \$1,000 payment upon agreement execution, as well as a one-time payment ranging from \$7,500 to \$25,000 based on each landowner's property and proximity to the Project area, which would be paid upon commencement of construction. (Kingwood Ex. 6 at

8.) Mr. Stickney testified that Kingwood has entered into six such good neighbor agreements, totaling approximately \$100,000. (Tr. Vol. IX at 2152.)

Finally, Kingwood is also developing a community benefit fund for the three townships totaling \$225,000 per year available for the duration of the useful life of the Project (an expected \$7,875,000 over the life of the Project). (Tr. Vol. IX at 2153; Kingwood Ex. 6 at 8.) Kingwood expects to enter into agreements with any interested township conditioned on a certificate being issued for the Project and the township not opposing the construction and operation of the Project after the certificate is issued. (Kingwood Ex. 6 at 8.) Notably, despite the intervening townships' opposition to the Project, Kingwood remains willing to work with each of the three townships. (Tr. Vol. IX at 2153-54.) If the Project receives a certificate, then Kingwood will still make the community benefit funds available to any township that expresses interest. (*Id.*)

iii. Incoming Businesses are Demanding Renewable Energy

The Project will also directly meet the demand for renewable energy generation from businesses making significant economic investments in Ohio. Intel recently announced that it will make more than a \$20 billion investment to construct two chip factories in Ohio. (Kingwood Ex. 6 at 4.) Importantly, Intel's press release on the investment included a goal for the new factories to be powered by 100% renewable electricity to support its 2030 sustainability goals. (Kingwood Ex. 6, Attach. A.) As Mr. Stickney testified, companies like Intel are **"publicly demanding that the projects are 100% powered by renewable energy."** (Kingwood Ex. 6 at 36.) Notably, the Ohio Chamber of Commerce, the state's leading business advocate, recognized the need for increased renewable generation in Ohio and wrote a letter to the Board supportive of the Project. (*Id.* at Attach. B.) In the letter, the Chamber notes that "[i]nvesting in clean energy in Ohio is also **critical** to attracting new businesses as many Ohio businesses, across a number of industry sectors, have chosen to implement entirely voluntary renewable energy procurement goals." (*Id.*)

iv. Renewable Energy is Essential to Reducing Fossil Fuel Dependency

Furthermore, the Project will directly assist in replacing fossil-fuel power generation facilities in Ohio that have recently or are planned to retire, contributing to cleaner air and water for the southwest Ohio region. (Kingwood Ex. 107 at 8.) Though renewable generation has increased globally since 2020, projecting continued growth of more than 6% in 2022, renewable generating capacity is **expected to fall short of global demand** for renewable energy by 50%. (*Id.* at 7-8) In the United States, **solar energy still only makes up 2.3%** of utility-scale electricity generation, with the majority, 60%, coming from fossil-fuels. (*Id.* at 8.) PJM Interconnection LLC has indicated an expected 50%, or 25 GW, reduction in coal-fired utility-scale generating capacity in the next eight years, substantially earlier than originally planned. (Kingwood Ex. 107 at 8.) **Ohio is the fourth largest consumer of electricity** in the United States **yet still generates more than one-third of its power capacity from coal-fired generators and remains a top-10 coal consuming state in the country.** (*Id.*) While Ohio imports 25% of its electricity consumption from other states and Canada, more than 3.5 GW of coal-fired generating plants in Ohio have recently announced their accelerated retirements, further increasing the necessity for in-state, sustainable and reliable power generation. (*Id.*; see also Kingwood Ex. 6 at 4.) Consequently, Kingwood Solar will directly contribute to addressing these increasing needs for reliable and economic electric generation in Ohio.

v. The Project will Preserve Farmland for Future Generations

Finally, preserving agriculture is in the public interest and the Project will do just that – preserve approximately 1,500 acres for the life of the Project. Unlike residential or commercial development, the Project will not constitute a permanent land use alteration. (Kingwood Ex. 107 at 11.) In fact, this is the very issue that the Greene County Farmland Preservation Plan tries to

address, stating that “farmland i[s] one of the county’s and state’s most important resources” and “[a] **positive externality of preserving farmland is the containment of sprawl.**” (Kingwood Ex. 83 at vi, 3.) The Plan recommends communities to create a growth management tools necessary to preserve remaining rural areas and open spaces from urban sprawl. (*Id.* at v, vi, 1, 38.) The Plan then recommends various ways sprawl can be kept to a minimum in Greene County, including creating designated agricultural areas to keep encroaching urbanization to a minimum. (*Id.* at 31-32.)

Utilizing farmland for utility scale solar in Greene County is **an additional tool for preserving farmland in the Project Area.** The Project will be a long-term but temporary land use, with the expectation and commitment that after decommissioning the Project Area can be returned to agricultural use. (Kingwood Ex. 107 at 11.) Consequently, in addition to creating revenue for participating landowners, the Project Area will be preserved from residential, commercial, or other forms of more permanent development. (*Id.*)

Various witnesses, including Jenifer Adams, Verity Digel, Karen Mossing, and Angie Hanna, who appeared on behalf of Citizens for Greene Acres, also agree that **preserving agricultural areas is in the public interest.** (Tr. Vol. IV at 820, 900, 915; Tr. Vol. V at 1167.) Additionally, during the operation of the Project, Kingwood has **proposed to incorporate a pollinator-friendly native seed mix** throughout the Project Area to provide a net benefit to habitat diversity in the area (Kingwood Ex. 1 at 82, 95; Kingwood Ex. 107 at 11-12.) Overall, there is ample evidence that the Project will preserve existing agricultural farmland in Greene County.

Therefore, the additional financial commitments made by Kingwood, providing Ohio citizens and businesses another avenue to clean energy as various coal-fired generation plants close, and preserving valuable agricultural land in the community, will further benefit the public

interest both on a local and statewide level. All of this is outweighed in the Staff Report issued in this proceeding due to some government entities not wanting this Project, despite the economic and other losses to their constituents, landowners, schools, and charitable organizations. Why? Simply because they do not like the Project.

d. Kingwood Has Maintained Open Lines of Communication with the Public and Will Continue These Interactions

Kingwood has engaged in community outreach since 2017, including meetings with local political leadership as well as potential participating landowners, to gain feedback on the Project attributes and siting criteria and answer general questions about the solar development process. (Kingwood Ex. 1 at 31; Kingwood Ex. 6 at 7.) These included meetings with the Miami Township Board of Trustees, Cedarville Township Board of Trustees, Tecumseh Land Trust, Greene County Board of Commissioners, Cedar Cliff Local School District Board, Xenia Area Local School District, Greene County Soil & Water Conservation District, Greene County Career Center, Yellow Springs Chamber of Commerce, Yellow Springs Village Councilwoman M. MacQueen, 73rd Ohio House District Representative B. Lampton, Greene County Regional Planning & Coordinating Commission, Greene County Engineer, Xenia Township Board of Trustees, Glen Helen Nature Preserve, and Clifton Village Mayor A. Bieri, and Councilman Anthony Satariano Jr. (Kingwood Ex. 6 at 7.)

i. The Little Miami Conservancy has no Concern with the Project

Additionally, Dylan Stickney, the project lead for Kingwood, met with Little Miami Conservancy, a 501(c)(3) organization dedicated to the restoration and protection of the Little Miami National Wild & Scenic River, about the Project as recently as February 2022. (Kingwood Ex. 6 at 7.) Mr. Stickney testified that the Little Miami Conservancy provided feedback to Mr. Stickney, **indicating it did not have a concern about the Project given its distance from the**

Little Miami River. (*Id.*) Specifically, the Conservancy calculated the Project to be approximately 1,300 feet from the Miami River and this distance is significantly greater for the majority of the Project Area. (*Id.*) In fact, the Little Miami River is separated from the Project Area by approximately 0.3 miles, north of Clifton Road. (Kingwood Ex. 1 at 61-62.)

ii. Kingwood Engaged in Robust Public Outreach

Other public interaction has included mailing letters and Project boundary maps to property owners, abutters, and elected officials pursuant to the Board's rules and issuing a public notice and a news release to the local media; and hosting various public meetings. (Kingwood Ex. 1 at 32.) Kingwood also held public meetings on October 26, 2020 (Zoom video conference), November 19, 2020 (dial-in phone conference), March 30, 2021 (Zoom video conference followed by dial-in phone conference), June 29, 2021 (in-person), and November 15, 2021 (in-person, the local public hearing). (Kingwood Ex. 6 at 9.) Due to the ongoing COVID-19 pandemic, some of these meetings were virtual. (*Id.*) Mr. Stickney also attended an April 6, 2021 town hall meeting organized by the Greene County Board of Commissioners and participated in the Commissioners work session on May 20, 2021. (*Id.*) Kingwood expects to continue local coordination throughout the development, construction process, and operation of the Project. (Kingwood Ex. 1 at 32.)

As noted above, Kingwood has continued to engage the public since the filing of the Application, and **extended good neighbor agreement offers to 65 non-participating landowners** adjacent to the Project. (Kingwood Ex. 6 at 8.) The offers included a \$1,000 payment upon agreement execution, as well as a one-time payment ranging from \$7,500 to \$25,000 based on each landowner's property and proximity to the Project area, which would be paid upon commencement of construction. (*Id.*) The total amount of the offered payments was \$822,500. (*Id.*) As of April 26, 2022, six landowners have accepted the offers, totaling approximately \$100,000. (Tr. Vol. IX at 2152.)

Despite the opposition expressed by the Boards of Trustees of Cedarville, Miami, and Xenia Townships, **Kingwood hopes to maintain communication and outreach with the townships.** (Kingwood Ex. 6 at 8.) Kingwood has budgeted \$225,000 per year for 35 years for a community benefit fund to benefit the townships. (Tr. Vol. I at 186.) This totals more than \$7.8 million for the townships, which could be used for various expenditures within the trustees' discretion, including purchasing equipment for first responders or any other expenditure benefiting the townships such as hiring additional employees. (Tr. Vol. I at 186; Kingwood Ex. 6 at 8.) The **community benefit fund would supplement the additional tax revenue** the townships would receive if the Project is constructed and operated. (Kingwood Ex. 6 at 8-9.) As Mr. Stickney clarified during the hearing, if the Project is certificated by the Board, the total fund will be available, and each township entering into an agreement with Kingwood would be eligible to receive funds (i.e. if only one township signed an agreement, it would receive the entire \$225,000 per year). (Tr. Vol. I at 187; Kingwood Ex. 6 at 8.)

iii. Kingwood Would Have a Complaint Procedure in Place

Kingwood will also have in place a Complaint Resolution Program, submitted as Appendix E to the Application that will ensure that **any complaints from the public are addressed expeditiously.** Kingwood has committed to filing the Program on the public docket, pursuant to Condition 29 of the Joint Stipulation, 30 days prior to the start of construction. (Jt. Ex. 1 at 8.) Under the Program all complaints will be addressed in a timely manner, and information will be sought to identify and address the root cause, as appropriate. (Kingwood Ex. 1 at 32.)

iv. Kingwood Would Supply Notices and Updates to the Public

Kingwood will also provide information to the local community, as required by Condition 29. No later than seven days prior to the start of construction, Kingwood will mail a notice of

construction of the Project to the various groups, including: (1) affected property owners and tenants who were provided notice of the public information meeting; (2) attendees of the public information meeting who requested updates regarding the Project and provided a mailing address for that purpose; and (3) any other person who requests updates regarding the Project and provides a mailing address for that purpose. (*Id.*) The **notice of construction will summarize the upcoming construction activities**, describe the areas in which construction will occur, including the main routes of equipment delivery, and provide the name and contact information of a representative of the Project to whom any complaints, concerns or comments may be addressed. (*Id.*)

Finally, Condition 29 in the Joint Stipulation memorializes many of the commitments Kingwood has already made in the Complaint Resolution Program to maintain communication with the community. (Jt. Ex. 1 at 8-9.) For example, Kingwood has committed to sending an additional notice prior to the start of Project operations; filing the final complaint resolution program and copies of all mailed letters on the public docket; and submitting a complaint summary report to Board Staff by the fifteenth day of April, July, October, and January of each year through the first five years of operation. (*Id.*) Overall, these efforts and commitments support a finding that the Project is in the public interest.

e. Kingwood Will Collaborate with Local Emergency Services and Ensure the Safety of the Project Area

Kingwood is committed to ensuring the safety of the local community, as evidenced by Conditions, 26, 29, and 38 in the Joint Stipulation. Pursuant to Condition 26, Kingwood will **submit its emergency response plan to Staff 30 days prior to the preconstruction conference** for review and acceptance. (Jt. Ex. 1 at 8.) The plan requires Kingwood to keep the Village of Yellow Springs and the Camp Clifton Day Camp informed of the status of any spills, significant

panel damage, and the repair/clean-up/decommission schedule. (*Id.*) Emergency responders are to be provided notices regarding the start of construction and start of Project operations pursuant to Condition 29. (*Id.* at 8-9)

Per Condition 38, Kingwood will also provide an **emergency response plan to Staff prior to construction** of the Project. (Jt. Ex. 1 at 11.) Under this condition, Kingwood must provide annual training, commencing prior to the start of operation and until Project decommissioning, to the Xenia Township, Cedarville Township, Miami Township, and Greene County emergency response services, in addition to providing those agencies with emergency contacts for the Project during construction and operation. (*Id.*) The plan also has to be developed in conjunction with these emergency response agencies. (*Id.*) Importantly, the training for the local responders will commence prior to the start of Project operations and will continue until decommissioning. (*Id.*)

Kingwood will also conduct additional, general and **Project-specific health and safety trainings for construction contractors and employees**. (Kingwood Ex. 1 at 51.) The trainings will include review of state and local health and safety requirements; location and routes to nearby emergency care facilities; analyses of risks and procedures to mitigate any exposures; stop work triggers; and communication protocols for reporting health and safety issues. (*Id.*) All workers will be required to follow required health and safety controls and the emergency response plan described above. (*Id.*)

Kingwood has also designed the Project Area with safety in mind. Kingwood **will comply with the safety and equipment standards** that are applicable to commercial-scale solar farms and are standard to the industry. (Kingwood Ex. 1 at 50.) Once construction is complete, equipment areas within the Project Area will be entirely enclosed by a seven-foot-tall fence, which comply with applicable safety codes and satisfy Condition 15 of the Joint Stipulation. (Kingwood

Ex. 1 at 14; Jt. Ex. 1 at 5.) Gates will be used for operations and maintenance and/or emergency access. (Kingwood Ex. 1 at 14.) “No Trespassing” signs will be posted along the fence, and the access gates will remain locked at all times when not in use by the Applicant or its authorized contractors. (*Id.*) Emergency contact information will be posted at the primary entrance of the Project. (Jt. Ex. 1 at 11 (Condition 38).) Gated entrances to the Project Area, Project substation, and utility switchyard will be lit for safety and security purposes. (Kingwood Ex. 1 at 117.)

Overall, the Board has adequate evidence to find that Kingwood will implement suitable safety measures to serve the public interest and will not have a negative impact on emergency services in the local area. And considering the record as a whole, **Kingwood has met its burden of proof that the Project will be in the public interest, convenience, and necessity.** *See, e.g., In re Madison Fields Solar Project, LLC*, Case No. 19-1881-EL-BGN, Opinion, Order, and Certificate (Jan. 21, 2021), at ¶¶ 67-69; *In re Big Plain Solar, LLC*, Case No. 19-1823-EL-BGN, Opinion, Order & Certificate (Mar. 18, 2021), at ¶¶ 65-67.

3. Even if the Board Considers Local Governmental Opinions in its Analysis of R.C. 4906.10(A)(6), the Project Still Satisfies this Criterion

Initially, the Board should recognize the resolutions passed by the Greene County Board of Commissioners and the three townships focus on **issues which are already adequately addressed in Kingwood’s Application and further through the Joint Stipulation conditions, and represent nothing more than politically motivated opposition.** Turning to the Greene County Resolution (filed October 29, 2021), this document declares the Project as “incompatible with the general health, safety, and welfare of the residents of Greene County” and “incompatible with the adopted policies for development of renewable energy and farmland preservation.” (Kingwood Ex. 20 at 2.) However, the original land use plan adopted by Greene County, “Perspectives 2020: A Future Land Use Plan for Greene County,” does not address renewable

energy installations in the County. (Tr. Vol. VII at 1705.) While an amendment to this plan was passed on August 26, 2021, it was filed **well after** the Application was filed on April 16, 2021 and **after** the Application was deemed complete by the Board. (*Id.* at 1704.) In fact, Brandon Huddleson, the Greene County Administrator, expects the land use plan amendment to apply to projects in the future and testified it was not intended to apply to the Project. (*Id.* at 1704-08.)

a. Initial Lack of Opposition was Followed by Vague Opinions Simply Claiming Incompatibility

As discussed further below in Section V(A)(4), at the time the Staff Report was issued on October 29, 2021, intervention by the Boards of Township Trustees of Miami and Cedarville Townships were supported by resolutions that indicated **no opposition** to the Project. Also, the intervention notice for Xenia Township (filed May 7, 2021), while not referred to in the Staff Report, also notes no opposition and merely the desire for the township trustees to intervene in this proceeding. (Kingwood Ex. 95 at 1.) While all three townships later passed resolutions in opposition to the Project, these resolutions are **vague and rely on generic statements** stating the Project is “incompatible with the general health, safety, and welfare” of township residents or allude to issues that have been adequately addressed by the Applicant. (Kingwood Ex. 68 at 4; Kingwood Ex. 65 at 3; Xenia Township Ex. 1 at Ex. A.)

The ambiguity from the intervening townships continued at hearing. For example, Jeff Ewry, chair of the Board of Trustees of Cedarville Township, testified that the township trustees **have not had a discussion on how the Project is incompatible** with the general health of Cedarville Township residents, **but stated the Project has caused “angst” and “high tensions” in the township.** (Tr. Vol. VI at 1530-31.) Allegations of tensions in the community, **without any evidence of actual harm to the community**, should not be a reason for the Board to determine that the Project does not satisfy R.C. 4906.10(A). *See, e.g., In re Ross County Solar, LLC*, Opinion,

Order, and Certificate (Oct. 21, 2021), at ¶¶ 129, 135-36 (finding that despite the intervening township concerns about reduced property values, the project was not expected to decrease property values in the project area). Next, Mr. Ewry stated the Project was incompatible with the safety and welfare of township residents because of **traffic and potential contamination of water wells**. (*Id.* at 1532.) Both of these issues have been adequately addressed by Kingwood in the Application and the expert testimony of Kingwood’s witnesses including Dr. Brent Finley who testified on the lack of toxicity from panel use. Of note, Cedarville University has an existing solar array within the township close to residential housing. (*Id.* at 1533.) Consequently, the concerns expressed by the township appear unfounded and lack evidentiary support.

Don Hollister, Trustee for Miami Township, testified that Miami Township is opposed to the Project because it violates the local zoning code, **even though such codes are not applicable** to the Project pursuant to R.C. 4906.13. (Tr. Vol. VI at 1467-69.) Though he also expressed concern about setbacks, fencing, noise, road damage, drainage, erosion, and environmental consequences, Mr. Hollister also **admitted the township conducted no studies to study these impacts** or even mentioned these concerns in their resolution opposing the Project (*Id.* at 1457-59, 1461.) Though admitting the Board retains jurisdiction over the Project during its operation, Mr. Hollister is under the impression the Board is unable to adequately exercise jurisdiction if any issues arise because “they have one office and no field [s]taff.” (*Id.* at 1459.) Further, Mr. Hollister has demonstrated clear bias against the Project. He **admitted he is personally opposed to the Project** and has even followed and commented on the Citizens for Green Acres opposition Facebook group since 2018. (*Id.* at 1463-66.)

Stephen Combs, Trustee for Xenia Township, expressed that the township is concerned about the long-term effects of the Project, and **identified a laundry list of issues** the Board should

address including decommissioning, health effects, pollution, runoff, dust, wildlife, traffic, emergency response services, property values, and tourism. (Tr. Vol. VI at 1310-19.) Again, **each of these issues have been adequately addressed by the Applicant in the Application**, through testimony and the Joint Stipulation. Further, the township **did not conduct any independent studies or** demonstrate any actual impacts to the township. (Tr. Vol. VI. 1305-08, 1315-16.) Notably, Xenia Township has not expressed any opposition to a 30 MW solar project being developed by Samsung in the township. (Tr. Vol. VI at 1300-01.)

b. The Majority Support does not Coincide with Public Official Sentiments

While local public officials have expressed opposition, the majority of Greene County residents are actually supportive of the Kingwood Solar Project. (Kingwood Ex. 107 at 6; Citizens Ex. 16.) Public Opinion Strategies is the largest political and public affairs survey research firm in the country, specializing in political, public affairs, public policy, and corporate positioning research. (Kingwood Ex. 104 at 1-2.) Since 1991, the firm has conducted 10 million interviews, completed a total of 24,412 projects, and currently represents six governors, ten Senators, and 50 Members of Congress. (*Id.*) Public Opinion Strategies, on behalf of the Applicant, conducted the poll of 350 registered voters during March 2-3, 2022 to gauge whether Greene County residents in general were supportive of the Project. (Tr. Vol. I at 200; Tr. Vol. IX at 2122; Kingwood Ex. 107 at 4; Citizens Ex. 16.) **The poll indicates that 63% of voters in Greene County support the solar project, compared to 23% who are opposed.** (Citizens Ex. 16 at 10.) In other words, in comparison to those who oppose the Project, close to three times as many Greene County residents support it. (Kingwood Ex. 104 at 5-6.) Support is strong **throughout the county**, with **both men and women**, and with **voters of all ages**. (Citizens Ex. 16 at 12; Kingwood Ex. 104 at 5.) Among the 40% of the voters who had heard about the Project prior to the poll, 63% support

the project and 30% are opposed. (Kingwood Ex. 104 at 5; Citizens Ex. 16 at 12.) The Board may confidently rely on the results of this poll to conclude that Greene County residents are in fact supportive of the Kingwood Solar Project and not in agreement with the Greene County and township leaders.

Importantly, the poll was conducted on a **countywide basis** to ensure an accurate sample size representative of the entire county because, as Mr. Hobart of Public Opinion Strategies explained, a telephone survey of the three townships solely is not feasible. (Tr. Vol. VIII at 2064.) Specifically, 75 to 100 unique phone numbers are required to complete one interview. (*Id.* at 2065.) It follows, that to get 350 interviews, 35,000 phone records of registered voters would be required. (*Id.*) A list of that many registered voters would not be available for smaller geographical areas in Greene County (e.g. citizens who only reside in Cedarville, Miami, and Xenia Townships or citizens who only reside a specific distance away from the proposed Project). (*Id.* at 2059-60, 2064-65.)

In sum, while Kingwood believes the Board should not consider local governmental opinions in its analysis of R.C. 4906.10(A)(6), here, while **a vocal minority of the local public and intervening government entities have expressed negative opinions** about the Project, **these opinions are not actually connected to any actual, demonstrated impact** on the local community. Consequently, even if the local governmental entities' opinions or the broader public opinion are considered by the Board (which it should not), the Project satisfies R.C. 4906.10(A)(6). *In re Champaign Wind, LLC*, 146 Ohio St.3d 489, 2016-Ohio-1513, 58 N.E.3d 1142, ¶ 4, 8, 47, 50; (the Supreme Court of Ohio finding that the intervening county and township officials' concerns regarding decommissioning were invalid and the Board had appropriately considered several factors to determine the project met the public interest, convenience, and necessity); *In re*

Ross County Solar, Case No. 20-1380-EL-BGN, Opinion, Order, and Certificate (Oct. 21, 2021), at ¶¶ 129, 135-36 (finding that despite the intervening township concerns about reduced property values, the project was not expected to decrease property values in the project area); and *In re Alamo Solar I, LLC*, Case No. 18-1578-EL-BGN, Opinion, Order, and Certificate (June 24, 2021), at ¶ 292 (holding that despite local citizens’ testimony, the project would not create more opportunity for crime in the locality and the applicant had proposed adequate safety measures and setbacks, risk mitigation plans, and that the amended joint stipulation benefited the public); and

4. Staff’s Recommendation Should be Afforded no Weight Because it Failed to Properly Weigh the Benefits

The Board should afford no weight and should not consider Staff’s recommendation on R.C. 4906.10(A)(6) in the Staff Report. It should also afford no weight to Mr. Zeto’s testimony at hearing that the Project does not meet the public interest, convenience and necessity. Staff’s failure to consider the statewide benefits of the Project, the procedural irregularities surrounding its investigation of this criterion, and the material mistakes in the Staff Report on this issue all mandate that the Board not consider Staff’s recommendation. Each of these failures is described below.

a. Staff did not Consider Statewide Benefits

First, the record is clear that Staff **should have but did not consider the Project’s statewide benefits** when reaching its conclusion that the Project would not serve the public interest, convenience and necessity. R.C. 4906.10(A)(6) requires that the Board to evaluate whether “...the facility will serve the public interest, convenience, and necessity[.]” R.C. 4906.10(A)(6). In doing so, this Board considers the statewide benefits. *In re Alamo Solar I, LLC*, Case No. 18-1578-EL-BGN, Opinion, Order, and Certificate (June 24, 2021), at ¶ 291 (“For example, this factor should consider the public’s interest in energy generation that ensures

continued utility services and the prosperity of the State of Ohio”). Thus, Staff should have considered statewide benefits when considering the criterion under R.C. 4906.10(A)(6).

Staff’s Project Manager for the Kingwood Solar Project, Grant Zeto, agreed that Staff should have considered the statewide benefits. (Tr. Vol. VII at 1893-1895.) After being directed to language in the Staff Report that compared local Project benefits to what Staff characterized as “overwhelming public opposition”, **Mr. Zeto admitted that Staff should consider statewide benefits in addition to local benefits:**

Q. Right. In terms of Staff’s review and analysis of an application and its recommendation to the Board, do you believe that Staff should consider only the local impacts?

A. No.

Q. What should Staff consider in addition to local impacts?

A. **Statewide impacts as well.**

(Tr. Vol. VII at 1893-94, emphasis added.)

Even though Staff knew that it should have considered the statewide benefits of the Project in its evaluation of the R.C. 4906.10(A)(6) criterion, **it did not**. The section of the Staff Report titled “Considerations for R.C. 4906.10(A)(6)” makes no mention of any consideration of statewide benefits. (See Staff Ex. 1 at 40 to 44.) Mr. Zeto agreed that the section of the Staff Report on the R.C. 4906.10(A)(6) criterion did not describe any statewide benefits. (Tr. Vol. VII at 1894.) And, importantly, **he also agreed that the Project will have statewide benefits** and testified that **he was not aware of any negative aspects** on a statewide basis of the Project. (*Id.*) Yet, inexplicably, Staff did not consider the statewide benefits of the Project when reaching its

conclusion on whether the Project will serve the public interest, convenience and necessity. That failure **alone** renders the Staff recommendation on that criterion useless.

b. The Staff's Investigation is Replete with Procedural Irregularities

The second reason why the Board should not consider Staff's recommendation or testimony on this issue is that Staff's investigation of R.C. 4906.10(A)(6) is replete with procedural irregularities. For example, on **October 28, 2021, the day before the Staff Report was to be issued**, Theresa White, the Executive Director of the Board, directed her subordinate, Juliana Graham-Price, **to contact the Greene County Board of County Commissioners and the three intervening townships to determine each entity's position regarding the Project.** (Tr. Vol. VIII at 1942.) Ms. Graham-Price did so and discovered that the Board of Commissioners of Greene County would be passing a resolution in opposition to the Project that day. (Tr. Vol. VIII at 1941.) Indeed, a video from the Board of Commissioners of Greene County's meeting on October 28, 2021, when the resolution in opposition to the Project was passed, shows **Commissioner Rick Perales stating, "Staff needs our input tomorrow."** (Kingwood Ex. 24.) To this day, Staff has not disclosed to the Board or any party **why** Ms. White directed her subordinate to make the October 28, 2021 "inquiries." **This aspect of Staff's investigation is nowhere to be found in the Staff Report.** As discussed later in this brief in Section V(D), only Ms. White can provide the answer on why she directed Ms. Price to make the inquiries. **Unfortunately, Kingwood was not allowed to call her as a fact witness.** (Tr. Vol. VIII at 1962-63.)

Another example of a procedural irregularity is the fact that Staff reversed its recommendation from approval to denial based solely on the Greene County Board of County Commissioner's resolution being passed and filed. The Board of County Commissioners passed

the resolution on October 28, 2021 and filed it on the docket the next day. **That very same day, the day the Staff Report was due, Staff reversed its draft report from an approval to a denial,** noting that the Project did not satisfy R.C. 4906.10(A)(6). (Tr. Vol. VII at 1785, 1842-43.) On cross-examination, Mr. Zeto admitted that the only change that occurred overnight was the filing of the resolution. (Tr. Vol. VII at 1843-44.) In other words, Staff changed its recommendation based solely on a resolution from the Board of Commissioners of Greene County. That fact alone should be sufficient for the Board to not afford any weight to Staff's recommendation. Also troubling is that the two individuals responsible for this section of the Staff Report, Grant Zeto and Matthew Butler, were unable to identify the actual individual who drafted the ultimate conclusion stating the Project did not satisfy this criterion. (*Id.* at 1784-85, 1852-53.)

c. Staff made Blatant Errors and Misstatements in the Staff Report

The third reason why the Board should not consider the Staff's recommendation and testimony on the public interest criteria is that Staff made **blatant errors and misstatements** in that section of the Staff Report. As Mr. Stickney summarized in his testimony, Staff mischaracterized the public comments in the report by overstating the opposition and mischaracterized township resolutions as being in opposition to the Project when they stated no position on the project. (Kingwood Ex. 6 at 38.) Staff referred to notices of intervention written by counsel as if notices were resolutions and misquoted one of the notices. (See Kingwood Ex. 89 at 2.) Mr. Stickney also noted that Staff failed to consider that many of the interveners in the proceeding filed public comments, some even filed multiple comments. (Kingwood Ex. 6 at 38.) All these mischaracterizations made it appear there was far more opposition than there was. The question is why? What was the Staff, after finding the eight criteria were satisfied, now trying to achieve?

Staff also failed to account for the number of support letters, such as the **76 separate letters in support, which were filed as a single document.** (*Id.*) Similarly, Staff characterized the local opposition as being “... prominent, one-sided, and compelling” and that it considered the opposition expressed at the “local public hearings.” (*Id.*) But, as Mr. Stickney testified, “... the public hearing for the Project had not occurred when the Report was issued and the language in that section of the Staff Report **appears to have been cut and pasted from the Republic Wind** proceeding’s Opinion and Order from June 24, 2021.” (Kingwood Ex. 6 at 38.) Kingwood promptly notified Staff of these errors on November 9, 2021 through correspondence delivered to Ms. White, the Board’s Executive Director. (See Kingwood Ex. 89.) **Yet, Staff did not and has not corrected the errors.**

d. These Serious Issues Merit the Board Disregarding Staff’s Last Minute Reversal

Taken as a whole, Staff’s investigation into whether the Project would serve the public interest, convenience and necessity under R.C. 4906.10(A)(6) leaves much to be desired, was not complete given the lack of consideration of statewide benefits, and contains such misstatements and false claims as to suggest that Staff was trying to support its sudden reversal as to be totally unreliable. The Board can remedy this issue by expressly stating in its decision that it did not consider the section of the Staff Report titled “Considerations for R.C. 4906.10(A)(6)” Staff Report and that it afforded no weight to Mr. Zeto’s testimony that the Project does not meet the R.C. 4906.10(A)(6) criterion. Failing to do so leaves a very suspect denial of what was originally an approval on the books.

B. The Kingwood Solar Project is a Well-Designed Project Which Meets Each of the Other Relevant R.C. 4906.10(A) Criteria

Kingwood has designed and located the Project in a manner that reduces impacts and allows the Project to coexist within the community. Kingwood has provided **significant setbacks**

from highly travelled roads, added **additional screening** throughout the Project Area and located the vast majority of the Project Area in **agricultural areas**. The record in this case, which includes the Application, the Staff Report sections on these criteria, and the testimony all support a finding that the Kingwood Solar Project meets all of the criteria identified under R.C. 4906.10(A)(2) – (5), (7), and (8). Additionally, the Project is not an electric transmission line or gas pipeline, and therefore the Board need not consider this criterion. R.C. 4906.10(A)(1). Note that in this proceeding, Staff has recommended to the Board that it make a finding that the Project meets all of these statutory criteria, subject to Staff’s recommended conditions. (Staff Ex. 1 at 9-25.) In making its findings, the **Board may rely upon the Joint Stipulation** in this proceeding which enhanced and did not replace Staff’s recommended conditions.

1. The Board has Adequate Evidence to Determine the Nature of the Probable Environmental Impact of the Project and to Determine that the Project Represents the Minimum Adverse Environmental Impact (4906.10(A)(2) and 4906.10(A)(3))

In considering these two criteria, the Board has generally considered the probable environmental impact under R.C. 4906.10(A)(2) by considering the Project’s socioeconomic impact, the ecological impact and the impact on public services, facilities and safety. *See, e.g., In re Alamo Solar*, Case No. 18-1578-EL-BGN, Opinion, Order, and Certificate (June 24, 2021) at ¶¶ 135-238. The Board then considers whether these impacts represent the minimum adverse environmental impact and, therefore, complies with the requirements of R.C. 4906.10(A)(3). *Id.* at ¶¶ 246. The record amply demonstrates that the Project will cause minimal impacts to the ecological, social, and cultural conditions in the Project Area including to land, water, wildlife, vegetation, and transportation.

a. The Board has Adequate Evidence to Find and Determine that the Socioeconomic Impacts are Minimal, if Any

Kingwood presented **multiple expert witnesses** to support its Application and to show the Project's overall **socioeconomic impacts will be minimal**, if any, and any such impacts would be **outweighed by the positive economic impacts**. The Board has traditionally considered impacts to land use, cultural resources, and recreation and the Project's generation of positive economic benefits to evaluate socioeconomic impacts. *See, e.g., In re Ross County Solar*, Case No. 20-1380-EL-BGN, Opinion, Order & Certificate (Oct. 21, 2021), at ¶¶ 45-57. As noted above in Section V(A)(2)(a)(i)-(ii), the Project will have a significant economic impact via **\$1,100,000** in annual lease payments escalating each year of operations; **\$1,500,000** in annual tax revenue; and **444** Ohio jobs during the 16-month construction period and **15** permanent jobs during the operation of the Project. Moreover, as discussed below, the Project will coexist with existing land uses, will support the Greene County Farmland Preservation Plan, and will have minimal impact on recreational areas and cultural and archaeological resources.

i. The Board has Adequate Evidence to Find that the Project's Impacts on Land Use will be Minimal

Kingwood selected the Project Area because **sufficient land was available** within the existing agricultural parcels so that the Project could be sited **without any intrusion** upon surrounding land uses. (Kingwood Ex. 1 at 20.) The Project Area is characterized by primarily agricultural use. (*Id.* at 99, 119-20.) Approximately 316 acres of agricultural district land is also within the Project Area. (*Id.* at 119.) Generally, solar panels have been sited in upland, open fields that lack ecological diversity due to agricultural use to minimize impacts to woodlands and delineated wetlands. (*Id.* at 91.)

In contrast to residential development on farmland, if constructed, the Project **will preserve agricultural land during its 35-year life**. As Mr. Stickney testified, residential development on farmland has already permanently altered a significant area surrounding the Project Area. (Kingwood Ex. 107 at 11.) Once land is converted to residential or commercial use, it will not be returned to agriculture. (*Id.*) On the other hand, while agricultural activities will not occur on Project Area during the Project's lifetime, the Project Area can be fully restored to agricultural use upon decommissioning, per the desires of participating landowners. (Kingwood Ex. 1 at 34-38; Kingwood Ex. 6 at 17-18; Kingwood Ex. 19 at 5-7.) Consequently, as further discussed above, utilizing farmland for utility scale solar is an **additional tool for Greene County to preserve farmland** in the area and to prevent urban sprawl. (Kingwood Ex. 83 at 40; Kingwood Ex. 107 at 11.)

Though the Project is not required to comply with local regulations, including local zoning, pursuant to R.C. 4906.13, the Project is compatible with the Greene County "Perspectives 2020" Future Land Use Plan and the Greene County Farmland Preservation Plan. (Kingwood Ex. 1 at 102; Kingwood Ex. 107 at 5.) The Project is compliant with these plans because the Project will help to drive economic growth through responsible land use and development and **will protect and preserve land that is best suited for farming**. (*Id.*) While Greene County also adopted an amendment to the Perspectives 2020 Land Use Plan on August 26, 2021, several months after Kingwood filed its Application on April 16, 2021 and served a copy of the Application to the Greene County Board of Commissioners on June 21, 2021, the Project still is mainly compliant with this amendment. (Kingwood Ex. 107 at 5.)

The Project is compliant with the amendment because it is located outside of urban service boundaries, promotes preservation of farmland, has increased setbacks from abutting residences,

is not within any identified special flood hazard areas, and is outside of viewshed of cultural, historic, and recreational resources of Greene County. (*Id.*) The parts of the amendment that the Project cannot comply with are the one-mile buffer from the Little Miami River and the universal 300-ft setbacks from all roadways and property boundaries. As Mr. Stickney testified, these **restrictions would eliminate approximately 1,000 acres of the Project Area and render the Project economically unfeasible.** (*Id.*) Moreover, based on the timing of the amendment's passage and the Board of County Commissioner's opposition to the Project, these provisions of the amendment appear to be more "poison pill" provisions directed toward the Project and an attempt to make it unfeasible.

Notably, Staff concluded the Project will aid regional development by increasing local tax revenues; is consistent with the protection and preservation of the agricultural industry; would provide supplemental income to farmers; and the land would be protected from permanent development and could be returned to agricultural production upon decommissioning. (Staff Ex. 1 at 12.) Given the evidence in this record, the Board should come to the same conclusion.

ii. The Board has Adequate Evidence to Find that the Project's Impacts on Cultural Resources will be Minimal

An important fact supporting a finding that the Project will have minimal impacts on cultural resources is that Kingwood has received concurrence from the Ohio State Historic Preservation Office ("SHPO") confirming that the archaeological and architectural reports prepared for the Project indicate **minimal impacts to cultural and historic resources.** (Kingwood Ex. 8 at 16-17.) After the initial filing of the Application, Weller & Associates, Inc. ("Weller") completed an archaeological survey on December 15, 2021, which found no cultural sites significant or eligible for the National Register of Historic Places ("NRHP"), and that no further cultural resource management work is considered necessary. (*Id.* at 16.) SHPO concurred

with these results on January 3, 2022, indicating no further coordination was warranted. (*Id.*) Likewise, on July 23, 2021, SHPO concurred with the recommendations in the architectural survey conducted by Kramb Consulting LLC of eligibility for listing in the NRHP and Ms. Kramb's finding that views to the Project from potentially eligible properties will be limited, that the proposed landscape plan would provide additional screening, and that, accordingly, no additional history/architecture investigations are necessary. (Kingwood Ex. 2 at 152; Kingwood Ex. 8 at 17.)

The architectural survey work by Kramb Consulting was thorough. Coordination with SHPO determined that the architectural survey for the Project would include a literature review within five miles and evaluation of resources within a two-mile radius, known as the area of potential affect ("APE"). (Tr. Vol. IX at 2197; Kingwood Ex. 8 at 16; Kingwood Ex. 101.) Ms. Amy Kramb, an architectural historian from Kramb Consulting LLC with 25 years of experience, was contracted to perform this work. (Kingwood Ex. 8 at 3; Kingwood Ex. 109 at 3.) Ms. Kramb identified 258 architectural locations warranting review within the APE (Tr. Vol. IX at 2197; Kingwood Ex. 101 at 48). The survey indicates a total of eight resources as potentially eligible for listing on the NRHP and have potential visibility of the Project Area, but because of the characteristics of each setting, the Project layout proximity, and proposed landscape screening, the **survey identified no adverse effects to these resources due to the Project** (Kingwood Ex. 101 at 49; Kingwood Ex. 17 at 17). Furthermore, due to the layout changes proposed by Kingwood as a result of the Joint Stipulation, four of these resources no longer have a view of the Project (Tr. Vol. IX at 2204).

An additional 17 resources, which were unable to be evaluated from the ground due to distance, vegetation, obscured views or limited access, were evaluated using available aerial imagery, and it was determined that the majority of these structures are well buffered by existing

vegetation and other features, and many are distant from the proposed solar arrays. (Kingwood Ex. 8 at 16-17; Kingwood Ex. 101 at 49.) As noted above, on July 23, 2021, SHPO concurred with the survey's recommendations of eligibility for listing in the NRHP, that views to the Project from potentially eligible properties will be limited, that the proposed landscape plan would provide additional screening, and that, accordingly, **no additional history/architecture investigations are necessary.** (Kingwood Ex. 2 at 152; Kingwood Ex. 8 at 17.)

Ms. Kramb also provided valuable testimony at the hearing regarding the history of Greene County versus other counties in Ohio. Specifically, she testified that Greene County is not recognizably different and that in general, the historically important aspects of Greene County can also be found elsewhere in Ohio. She testified that:

For example, Greene County has a rich history of Native American occupation and activity, but so do **most Ohio counties.** Greene County has a history of pre-Civil War African American settlements and known sites on the Underground Railroad, but again so do many other counties. Greene County's early settlers relied on farming and extraction industries, but so did early settlers in many other Ohio counties. Yes, Greene County settled earlier than say northwest Ohio counties, but Greene County also settled later than many of the counties along the Ohio River. In summary, Greene County has a rich history but that history is not necessarily unique.

(Kingwood Ex. 109 at 3-4.)

Ms. Kramb also noted that she did not believe that the Project would have an adverse impact on the historical character of the local area and its social and cultural community. She concluded that “[u]pon review of the SHPO concurrence letter and the applicant’s proposed landscaping plans, I’m confident that **any potentially adverse visual impacts** to historic properties **have been sufficiently mitigated as requested by SHPO.**” (*Id.* at 5.) Ms. Kramb’s testimony should be afforded significant weight given her significant experience in conducting cultural resource surveys in Ohio (hundreds since 2017 and four specifically for solar projects) and her own personal experience in Greene County. (Kingwood Ex. 101 at 3-4.)

Finally, the Board may note that its Staff determined that there are minimal adverse impacts posed to cultural resources as a result of the Project. (Staff Ex. 1 at 14.) The record evidence establishes that the Project, as submitted with the increased setbacks and updated landscaping plan, will have minimal impacts on cultural resources.

iii. The Board has Adequate Evidence to Find that the Project's Impacts on Visual Resources will be Minimal

Initially, it is important to note that the Project will have a **relatively modest visual impact** due to the fact that the Project's solar panels, at maximum tilt, **will be no taller than approximately 14 feet above the ground.** (Kingwood Ex. 1 at 7; Kingwood Ex. 8 at 12-13.) This is considerably shorter than existing overhead electric transmission structures that extend throughout the Project Area. (Kingwood Ex. 8 at 13.) Thus, the Project will have a relatively **low visual profile.** Further, as Mr. Stickney testified, Condition 4 of the Joint Stipulation includes a commitment that non-participating residences shall be at least 250 feet from the Projects' fence line and 500 feet from the inverter stations. (Kingwood Ex. 7 at 3-4.) These setbacks will further minimize any potential visual impacts.

(a) Analysis and Testimony Show the Project's Visual Impact will be Localized in Nature

Haley & Aldrich, on behalf of Kingwood, prepared a **Visual Impact Analysis** ("VIA") for the Project, submitted as Appendix Q to the Application, which concluded the Project will **not be visible from any of the visually sensitive areas in its surroundings.** (Kingwood Ex. 1, Appx. Q at 38.) The VIA was prepared to satisfy Ohio Adm.Code 4906-04-08(D)(4) that relate to the identification of visually sensitive sites (i.e. formally adopted areas of recreational, historic, religious, archaeological, scenic, natural, or other cultural significance) and potential visual impacts. (Kingwood Ex. 8 at 11.)

Due to the low visual profile of the Project, the VIA was prepared with a five-mile radius around the Project Area. (Kingwood Ex. 1, Appx. Q at 5.) Initially, a desktop evaluation was conducted to identify the area from which any element of the Project has the potential to be visible both considering terrain only and then including the effect of large areas of trees. (*Id.* at 5.) To confirm the desktop analysis, Haley & Aldrich staff undertook field verification during February 2021. (*Id.* at 8-11, 24.)

The VIA indicated **visibility of the Project will generally be concentrated within the Project Area** itself and the **open fields immediately adjacent to the Project**. (Kingwood Ex. 1, Appx. Q at 38.) Lynn Gresock, Principal Consultant for Haley & Aldrich, testified that the Project will be most visible within the Project Area itself and the open fields immediately adjacent to the Project, with visibility the greatest within 0.5 mile. She noted that the use of woven wire fencing, consistent with the agricultural character of the area, installation of landscaping in certain areas, and retention of existing woodlots, are expected to soften views of the Project. She testified that as illustrated by the visual simulations incorporated in the analysis, even without the use of landscape screening, the Project's visibility decreases dramatically. Further, Ms. Gresock, who has visited the Project Area, also testified that **none of the recreational areas identified has views of the Project**. (Tr. Vol. II at 270, 336.)

Amy Kramb, from Kramb Consulting, testimony and findings support Ms. Gresock's conclusions on the Project's visual impacts. Ms. Kramb spent time in the Project Area and surrounding area to complete her cultural resource field work. (Tr. Vol. IX at 2177.) She testified that the Project would not be visible from the John Bryan State Park or the Little Miami River Jacoby Road Access point. (Tr. Vol. VI at 1373; *see also* Kingwood Ex. 6 at 16.) **Visitors to the Clifton Gorge Nature Preserve will not have views** of the Project from the natural setting along

the Little Miami River, nor would it be visible for those visitors who enter from the preserve's main entrance. (*Id.*) The Project would also **not be visible from the Glen Helen Nature Preserve**. (Tr. Vol. VI at 1373.) Citizens for Greene Acres witness Susan Jennings, who has visited the Glen Helen Nature Preserve, John Bryan State Park, and Clifton Gorge Nature Preserve, agreed that the Project would not be visible from these three parks. (Tr. Vol. VI at 1373.)

In sum, Project visibility will be significantly limited at distances beyond 0.5-mile, given existing screening or by newly created natural buffers. (Kingwood Ex. 1, Appx. Q at 38; Kingwood Ex. 17 at 2.) Visible elements of the Project would largely be the solar arrays, which, as noted above, will be no more than 14 feet tall. (Kingwood Ex. 8 at 12-13.) Beyond 0.5 miles, screening provided by existing woodlots, hedgerows, and wooded stream corridors, in combination with the low height of the solar panels, will significantly limit Project visibility. (Kingwood Ex. 1, Appx. Q at 38.) As well, impacts to parks and preserves that tourists may visit will be minimal, if any, given that the Project will not be visible from those parks and preserves.

(b) Kingwood has Committed to an Enhanced Landscaping Plan and Made Other Commitments in the Joint Stipulation

Kingwood will also follow the enhanced Landscaping Plan which has been incorporated into the Joint Stipulation through Condition 16 of the Joint Stipulation. (Kingwood Ex. 18 at 1-2; Jt. Ex. 1 at 5, Condition 16 and Attach. 1.) That plan differed from the original plan (Kingwood Ex. 1, Appendix Q, Attach. C at 82) by **adding a total of 4,000 additional linear feet of vegetative screening** to reduce views from Wilberforce Clifton Road and OH-72 and further reduce views from nearby residences. (Tr. Vol. I at 76, 217; Tr. Vol. III at 643; Kingwood Ex. 17 at 2; Jt. Ex. 1 at 5 and Attach. 1.) The implementation of the Landscaping Plan and the use of woven wire fencing compatible with the agricultural character of the surrounding area, pursuant to Condition 15, will provide for softening of the horizon lines associated with the Project and

lessen potential impacts associated with the near-foreground views. (Kingwood Ex. 8 at 13-14; Jt. Ex. 1 at 5, Condition 15.)

Kingwood's Landscaping Plan identifies **specific locations for which either light, medium, or tall landscaping is planned.** (Jt. Ex. 1 at 5, Condition 16 and Attach. 1; Kingwood Ex. 1, Appendix Q at 70.) As Mr. English, a master of landscape architecture, and an owner and principal landscape architect of PLANIT Studios, explained during the hearing, each screening type provides a "good dense screen." (Tr. Vol. III at 652.) Further, each type of screening relies on certain vegetation types (e.g. the light screening is comprised of evergreen species), which will allow the final landscape architect for the Project to decide which type of visual buffer is the most appropriate for a specific location. (*Id.*) Kingwood also specifically considered the location of non-participating landowners in identifying locations for proposed landscaping and intends to continue coordination with non-participating landowners to adjust buffers and landscaping as appropriate. (Kingwood Ex. 8 at 14.)

Kingwood's commitment to Condition 16 of the Joint Stipulation filed on March 4, 2022 is significant. Not only did Kingwood commit to adding the additional 4,000 feet of vegetative screening, Condition 16 of the Joint Stipulation ensures that Kingwood will, **at a minimum,** implement the enhanced Landscaping Plan attached to the Stipulation. (Kingwood Ex. 18 at 1-2; Jt. Ex. 1 at 5, Condition 16 and Attach. 1.) The condition also takes into account that the Landscaping Plan may be updated through communication with non-participating property owners. (Jt. Ex. 1 at 5-6.) To ensure these changes are appropriately communicated to Staff, the condition requires Kingwood to provide the plan to Staff and file it on the public docket for review and confirmation. (*Id.*)

(c) Kingwood has Committed to Vegetative Screening for the Life of the Project

Additionally, Condition 16 requires Kingwood to maintain the vegetative screening for the **entire life of the Project** and ensure that screening modules themselves are effective. (Kingwood Ex. 18 at 3; Jt. Ex. 1 at 5-6.) As Mr. English explained, there are two important prongs to proposed Condition 16 that will ensure the effectiveness of mitigation for adjacent, non-participating landowners. (Kingwood Ex. 18 at 3.) First, Kingwood **will replace any failed plantings** during the first five years after construction to ensure that at least 90% of the vegetation has survived as of the five-year point. (*Id.*) Kingwood **will inspect plantings on an annual basis** to ensure that failed plantings are replaced and, at the five-year mark, the 90% threshold of plant survival is met. (*Id.*) The purpose of the five-year period is to allow plantings to become established. (*Id.*)

The second prong requires Kingwood to maintain vegetative screening, which will consist of the **three landscape modules**, for the life of the Project. (Kingwood Ex. 18 at 3.) Under this second prong, Kingwood will replace failed plantings within a screening module, if necessary, to ensure the screening module does not result in gaps and remains effective at that location. (*Id.*) This requirement to maintain vegetative screening for the life of the Project will ensure that any plant die-off during the life of the Project will not result in gaps in the screening modules. (*Id.*) Notably, the use of native plant species will provide environmental benefits to native wildlife and pollinator species. (*Id.*) Mr. English testified that based on his **26 years of prior landscaping experience**, including projects in Ohio, mitigation strategies of this type have been successful in reducing and minimizing visual impact. (Kingwood Ex. 17 at 1; Kingwood Ex. 18 at 4.)

Considering all of the above evidence, including the low visibility of the Project, Kingwood's commitment to utilize the three screening modules outlined in the Landscaping Mitigation Plan, and the additional commitments made in the Joint Stipulation through Condition

16, the Board has **sufficient evidence to find that the Project will have minimal impact on visual resources.**

b. The Board has Adequate Evidence to Find and Determine that the Project's Ecological Impacts are Minimal

Kingwood identified the minimal ecological impacts of the Project in its Application and through direct testimony at the evidentiary hearing. Ecological impacts may be broadly divided into five categories: surface waters, threatened and endangered species, other wildlife, vegetation and noxious and invasive weeds, and soil and water impacts. Kingwood's Application, the Staff Report, and the testimony in this proceeding in conjunction with the conditions in the Joint Stipulation provide sufficient evidence to allow the Board to find that the Project will have a minimal ecological impact. Notably, the Project Area is situated on land that has already been disturbed seasonally/annually for agriculture, which is lower quality habitat and does not support a diversity of species. (Kingwood Ex. 8 at 10.)

i. The Board has Adequate Evidence to Find that the Project's Impacts on Surface Waters will be Minimal

Kingwood has confirmed that the Project **will have minimal impact on surface waters** by completing, through its primary consultant Haley & Aldrich, a detailed study, including a field delineation, to determine the boundaries of wetlands and other aquatic resources for the Project Area. This study was attached to the Application as Exhibit M. Prior to field work, Haley & Aldrich reviewed secondary literature sources (such as topographic and aerial maps as well as National Wetland Inventory ("NWI") and Ohio Wetland Inventory ("OWI") wetland and stream mapping) to evaluate the presence of mapped wetlands and streams within the Project Area. (Kingwood Ex. 8 at 6.)

Field work for the study was completed October 15, October 20, November 17-18, 2020; and March 8-11, 2021 to identify potential wetlands and other waters. (Tr. Vol. II at 326;

Kingwood Ex. 8 at 6.) Wetlands and other waters were surveyed using a global positioning system (“GPS”) unit and desktop analysis and was generally in agreement with field inspections. (Kingwood Ex. 8 at 6.) Notably, due to the agricultural nature of the Project Area, OWI mapping overstates the extent of wetlands found on-site and some wetlands, if they ever existed, are no longer present. (Tr. Vol. II at 335-36; Kingwood Ex. 8 at 6.)

Within the Project Area, Haley & Aldrich identified six wetlands, consisting of both ORAM Category 1 and 2 wetlands. (Kingwood Ex. 8 at 6.) No Category 3 wetlands (the highest quality classification for wetlands) were identified. Each wetland was less than one acre and the Project Area contains 1.52 acres of wetlands total. **No impacts are proposed to any delineated wetlands.** (*Id.*)

A total of 27 stream segments (including four different segments of Clark Run) were identified during field investigations within the Project Area, totaling 18,287 linear feet of waterway. (Kingwood Ex. 8 at 6.). The crossing of all perennial streams (water flowing year-round), including the two Class III segments (the highest quality), will use horizontal directional drilling (“HDD”) or open trenching, if field conditions support this method, **which will not impact in-water species.** (Tr. Vol. II at 330-31; Kingwood Ex. 2 at 4; Kingwood Ex. 8 at 6-7.) HDD or similar boring techniques will also be used for non-perennial crossings, unless the stream is dry, there are no trees to avoid at the crossing, and/or field conditions support open trenching. (*Id.*) A total of nine stream segments will be crossed by underground collection lines, but these impacts will be temporary impacts. Therefore, **no permanent impacts to streams are proposed or anticipated.** (Kingwood Ex. 2 at 3.)

To minimize discharges or erosion as a result of stormwater, Kingwood will obtain an Ohio National Pollutant Discharge Elimination System (“NPDES”) General Permit from the Ohio EPA

prior to the start of construction. (Kingwood Ex. 1 at 42.) Pursuant to the permit, **a stormwater pollution prevention plan will be developed prior to Project construction** and the plan will detail temporary stormwater management features, as necessary, as well as silt fencing or other erosion control devices proposed to limit off-site transport of sediment. (*Id.* at 93.) Additionally, permitting requirements will be verified pending final design, and Kingwood **will obtain those necessary permits.** (*Id.*) Staff does not anticipate issues with the Applicant's procurement of any such permits. (Staff Ex. 1 at 1 at 26) The Project will not discharge water or waste into streams or waterbodies during construction or operation of the Project, thereby ensuring minimal impacts on surface waters. (Kingwood Ex. 1 at 8, 43-45.) Consequently, the Board has adequate evidence to find the Project's impacts on surface waters will be minimal.

ii. The Board has Adequate Evidence to Find that the Project's Impacts on Threatened and Endangered Species will be Minimal

The Project will have an insignificant impact on any threatened and endangered species within the Project Area. Kingwood, through its primary consultant, Haley & Aldrich, consulted both the USFWS and ODNR to identify rare, threatened, and endangered species within the Project Area. (Kingwood Ex. 8 at 8.) The USFWS and ODNR (in initial consultation letters dated May 4, 2020 and June 8, 2020, respectively) identified the Project Area as within the range of the federally listed, endangered Indiana bat (*Myotis sodalis*). (*Id.*) USFWS further identified the Project Area as within the range of the federally listed, threatened northern long-eared bat (*Myotis septentrionalis*). (*Id.*)

In its March 24, 2021 correspondence, the USFWS confirmed that the seasonal tree clearing restrictions (removal of trees to only occur between October 1 and March 31) minimize potential impacts from the Project on the two identified federally listed bat species. (Kingwood Ex. 2 at 77-78; Kingwood Ex. 8 at 8.) In a March 10, 2021 email (included in Appendix N of the

Application), ODNR has also confirmed that if the tree clearing will occur during the winter tree clearing dates, **no additional surveys or consultation with ODNR is necessary.** (Kingwood Ex. 8 at 8.) Notably, the Project layout has been developed **to avoid tree clearing to the maximum extent practicable**, and will be limited to approximately 21.5 acres of clearing within the 1,500-acre Project Area, with the majority of that focused on scattered trees and hedgerows. (Kingwood Ex. 17, Attach. A.)

The Project will not impact any other threatened or endangered species. The Project is within the range of the Kirtland's snake and the spotted turtle, state-listed threatened species, and the eastern massasauga, northern harrier, and upland sandpiper, all state-listed as endangered. (Kingwood Ex. 1, Appendix N at 32-33; Kingwood Ex. 8 at 8-9.) However, because of the location and type of low quality habitat present in the Project Area, Ms. Gresock testified that **adverse impacts to these species are not expected.** (Kingwood Ex. 8 at 9.)

Kingwood has also made additional commitments in the Joint Stipulation to protect threatened and endangered species, which include:

- Condition 17: Kingwood will contact Staff and the ODNR and/or the USFWS, as applicable, within 24 hours if state or federally listed threatened or endangered species are encountered within the construction limits of disturbance during construction activities. Construction activities that could adversely impact the identified plants or animals will be immediately halted until an appropriate course of action has been agreed upon by the Applicant, Staff, and the appropriate agencies. (Jt. Ex. 1 at 6.)
- Condition 18: If Kingwood encounters any new listed threatened or endangered plant or animal species or suitable habitat for these species prior to construction, it will identify avoidance areas or mitigation measures to accommodate construction activities to Board Staff, unless communication with the ODNR or USFWS allows for a different course of action. (*Id.*)
- Condition 20 directs Kingwood to have an environmental specialist, with the authority to halt construction activities for up to 24 hours, on site during construction activities that may affect sensitive areas. (*Id.* at 6-7.)

- Condition 21: requires Kingwood to adhere to seasonal restrictions for tree clearing in order to assure no potential impacts to state and federally listed bats. (Jt. Ex. 1 at 7.) The condition notes that coordination with the ODNR and USFWS may allow for a different course of action.
- Condition 23: Imposes time of year construction restrictions to protect the habitat of indigenous aquatic species, noting that coordination with the ODNR and USFWS may allow for a different course of action. (Jt. Ex. 1 at 7.)

All of these conditions support a finding that the **Project will have minimal impact on threatened and endangered species. Additionally, the Board has approved similar conditions to protect such species in other solar proceedings.** *See, e.g. In re Union Ridge Solar, LLC*, Case No. 20-1757-EL-BGN, Opinion, Order, and Certificate (Jan. 20, 2022), at 42-44; *In re Sycamore Creek Solar, LLC*, Case No. 20-1762-EL-BGN, Opinion, Order, and Certificate (Nov. 18, 2021), at 38-39

Based on the evaluations performed for the Project, additional ODNR and USFWS consultation, and Kingwood's commitments in the Joint Stipulation, the Board has adequate evidence to find that the Project's **impact on threatened and endangered species will be minimal.**

iii. **The Board has Adequate Evidence to Find that the Project's Impacts on Other Wildlife will be Minimal**

The Project is not expected to significantly disturb or displace wildlife and anticipated short-term and long-term operations impacts of the Project on wildlife are expected to be minor. (Kingwood Ex. 1 at 96.) Species observed or indicated by sign (e.g., tracks, scat, calls) as using the Project Area are those common throughout typical agricultural fields within Ohio, such as the Eastern cottontail, wild turkey, and American robin. (Kingwood Ex. 8 at 9-10.) Ms. Gresock testified there is an **abundant availability of similar agricultural fields** within the surrounding area that can be used as similar habitat. (*Id.*) Specifically, Ms. Gresock, during rebuttal testimony, noted that while many common birds may use the Project Area for hunting prey or eating corn and

other crops, a monocultural crop that is supported by the use of pesticides provides for low habitat diversity. (Kingwood Ex. 103 at 3.) Further, species will not be precluded from using the Project Area and surroundings once the Project is in place. (Kingwood Ex. 8 at 10.)

Furthermore, Ms. Gresock testified that the Project was **intentionally sited to either avoid or minimize impacts to wildlife** by locating the majority of infrastructure within active agricultural land, which is a lower quality habitat that does not support a diversity of species. (Kingwood Ex. 8 at 10.) The design of the Project allows for the ongoing movement of large species through the Project Area and surroundings, as it consists of 17 individually fenced areas of solar arrays rather than encompassing the entire Project Area with one fence. (*Id.* at 10.) Also, Kingwood's commitment to use wildlife permeable fencing pursuant to Condition 15 will provide access for smaller species. (Jt. Ex. 1 at 5; Kingwood Ex. 8 at 10.) After construction, the Project Area **will be stabilized with permanent vegetation, an improvement from row crops**, which Ms. Gresock testified will provide potential foraging habitat for area birds and wildlife. (*Id.* at 10-11.)

Overall, the Board has adequate evidence to find that the Project's impact on other, non-threatened and non-endangered wildlife will be minimal.

iv. The Board has Adequate Evidence to Find that the Project's Impacts on Vegetation will be Minimal and that the Project will not Contribute to Noxious and Invasive Weeds

The Project's **impact on vegetation will be minimal**. Indeed, the Project should result in more beneficial vegetation in and near the Project Area. As shown in Figure 08-8 of the Application, the majority of tree clearing will be limited to small woodlots, wind rows, and forest edges to optimize panel layout areas and prevent shading; larger treed areas will remain, and no wooded wetland will be altered. (Kingwood Ex. 1 at 92.) Approximately 21.5 acres of trees are

proposed to be cleared out of the 1,500 acre Project Area. (Kingwood Ex. 17 at Attach. A.) No records of state-listed endangered plants were identified within one mile of the Project Area. (Kingwood Ex. 1 at 81.) Further, Kingwood has prepared a Vegetation Management Plan, attached as Appendix O to the Application, to enhance the Project Area with a robust, low growing seed mix consisting primarily of native grasses and other low-maintenance species. (*Id.* at 96, 122.) Kingwood has committed to reestablish native, vegetative cover in areas that will be temporarily disturbed during construction for the installation of Project facilities and control the growth of noxious and invasive species. (Kingwood Ex. 1, Appx. O at 4.)

Seed mixes will be a pollinator-friendly, native blend designed to prevent the establishment or further propagation of noxious weeds, which will enhance the local ecology. (Tr. Vol. III at 565; Kingwood Ex. 1, Appx. O at 4; Kingwood Ex. 17 at 3.) Kingwood is partnering with a local company, Ernst/Monarch Vegetation, for supply of the pollinator-friendly vegetation seed. (Kingwood Ex. 1, Appx. O at 4.) Kingwood is also proposing three vegetative screening modules to reduce the visual impact of the Project. (Kingwood Ex. 1, Appx. Q at 71.) **These modules will utilize native, non-invasive species that provide ecological benefits, including pollinator-friendly plantings.** (*Id.*) As Mr. English testified, in addition to blending the Project into the surrounding landscape, using native plant species for the modules will also provide additional environmental benefits to native wildlife and pollinator species. (Kingwood Ex. 17 at 3.)

Finally, Kingwood has made additional commitments to prevent noxious and invasive plant species in the Project Area through Condition 22 of the Joint Stipulation. Kingwood's commitments in that condition include:

- Taking steps to prevent establishment and/or further propagation of noxious weeds identified in Ohio Adm. Code Chapter 901:5-37 during implementation of any pollinator-friendly plantings pursuant to Condition 22 of the Joint Stipulation. (Jt. Ex. 1 at 7.)
- If noxious weeds are found to be present, Kingwood will remove and treat them with herbicides and follow all applicable state laws regarding noxious weeds. (*Id.*)
- Kingwood will also remove and treat any noxious weeds upon a notice from a board of township trustees that noxious weeds are present in the Project Area. (*Id.*)
- Prior to construction, Kingwood will consult with the Greene County Soil & Water Conservation District regarding seed mixes for the Project and provide the tags on such seed mixes to the District. (*Id.*)

Importantly, the **Board has previously approved a similar condition in other solar project proceedings.** See, e.g., *In re Madison Fields Solar Project, LLC*, Case No. 19-1881-EL-BGN, Opinion, Order, and Certificate (Jan. 21, 2021), at 32; *In re Marion County Solar Project, LLC*, Case No. 21-36-EL-BGN, Opinion, Order, and Certificate (Nov. 18, 2021), at 40; and *In re Sycamore Creek Solar, LLC*, Case No. 20-1762-EL-BGN, Opinion, Order, and Certificate (Nov. 18, 2021), at 39-40.

In summary, Kingwood has adequately demonstrated that it has proposed native vegetation for re-vegetation and screening purposes and it will take active measures to control the growth of noxious and invasive species in the Project Area.

v. The Board has Adequate Evidence to Find that the Project's Impacts on Soil and Water will be Minimal

The Project's **solar panels do not pose a risk to soil and groundwater** within the Project Area. Mr. Finley, who has a Ph.D. in Pharmacology and Toxicology and is a Managing Principal Health Scientist with Cardno, explained that there is minimal risk for potential leaching of hazardous substances from solar panels into the environment because substances of potential concern within the solar cells are encapsulated within layers of glass and plastic polymer Ethylene Vinyl Acetate, which protect solar cells from air and moisture. (Kingwood Ex. 14 at 3.) The

encapsulation prevents any leaching of metals into the environment. (*Id.* at 3-4.) Additionally, the actual amounts of metals in an individual solar panel are very low. (*Id.* at 4.) For example, in a silicon-based solar panel, there is roughly 13g of Pb per panel, which is ~0.1% of what is found in a car battery, while CdTe panels typically have 7g of Cadmium per panel. (*Id.*)

(a) Even Rare Accidental Breakage Poses Minimal Risk

In the very unlikely scenario that the solar panels break as a result of a natural disaster (earthquake, tornado, etc.), the metal components may potentially no longer be encased. (Kingwood Ex. 14 at 4.) However, Mr. Finley explained that the risk of health effects is still remote even in this unlikely scenario because studies modeling worst-case scenarios for metal leaching from broken or discarded solar panels indicate **either no measurable increases in soil metal concentration, or levels that are well below human health screening levels.** (*Id.* at 4-5.) Additionally, because the panels are encapsulated, if a natural disaster were to cause a solar panel to break, **the panel would likely crack but remain in one piece, similar to what happens in the windshield of a car.** (*Id.* at 5.)

(b) Leaching will not Occur

In fact, during the hearing, Mr. Finley testified that “the metals in these panels are very difficult to extract even under very aggressive leaching conditions * * * I don’t think any force of nature is going to create a condition where a significant amount of metal or even a trivial amount of metal is going to leach out of a panel in the field.” (Tr. Vol. III at 505-06.) Therefore, despite potentially becoming damaged, a cracked solar panel is still unlikely to leach metal substances because of the encapsulation. (Tr. Vol. III at 504; Kingwood Ex. 14 at 5.) In addition to Mr. Finley’s testimony, the Board may also rely on Condition 28 in the Joint Stipulation which requires

Kingwood to demonstrate that the solar panels selected for the Project meet the U.S. EPA's toxicity characteristics leachate procedure. (Jt. Ex. 1 at 28.)

(c) Minimal Stormwater Impacts

The Project will also have minimal stormwater impacts. To mitigate any potential effect the Project has on stormwater, Kingwood **will obtain an NPDES construction stormwater general permit** for stormwater discharges associated with construction, also known as a Permit No. OHC000005. (Kingwood Ex. 1 at 42.) To meet NPDES requirements, a Storm Water Pollution Prevent Plan ("SWPPP") will also be prepared. (*Id.* at 93.) The SWPPP will identify potential sources of pollution which may affect the quality of stormwater discharges associated with construction activities. (*Id.*) Pursuant to Condition 19, Kingwood will perform pre- and post-construction stormwater calculations to determine if best management practices are required. (Jt. Ex. 1 at 6.) These calculations, along with a copy of any stormwater submittals made to the Ohio EPA, will be submitted to the Greene County Department of Building Regulation and Greene County Soil & Water Conservation District. (*Id.*) Furthermore, any stormwater control measures that are required will also be provided to these two agencies, as applicable, no less than seven days prior to the applicable construction activities. (*Id.*)

(d) Well Waters Protected

Finally, Kingwood's commitment to Joint Stipulation Condition 25 ensures that all water wells in the area are adequately protected. The condition requires Kingwood, at least 30 days prior to the preconstruction conference, to provide the status (i.e. avoidance, mitigation measures, or capping) of each water well in the Project Area. (Jt. Ex. 1 at 8.) Kingwood will also indicate to Staff whether the nearest solar components to each uncapped well within the Project Area meets or exceeds any applicable minimum isolation distances outlined in Ohio Adm.Code 3701-28-7. (*Id.*) Additionally, Kingwood will relocate solar equipment at least 50 feet away from each active

water well. (*Id.*) As noted above, Mr. Finley’s testimony further establishes that the Project will have no impact on groundwater and water wells.

Therefore, based on the benign nature of the panels, their negligible effect on soil and water within the Project Area, and Kingwood’s commitment to effectively manage post-construction stormwater flows and water wells, the Board has adequate evidence that the Project will have a minimal impact on soil and water.

c. Public Services, Facilities, and Safety

i. The Board has Adequate Evidence to Find that the Project’s Impacts on Traffic will be Minimal

Construction and operation of the Kingwood Project **will not have a negative effect on the travelling public.** (Kingwood Ex. 19.) Haley & Aldrich prepared a Transportation Management Plan, Appendix H to the Application, on behalf of Kingwood, and Lee Saunders, a professional engineer from Haley & Aldrich, testified about the Project’s impacts on traffic during both construction and operation. (Kingwood Ex. 1, Appx. H; Kingwood Ex. 19.)

According to both Mr. Saunders and the Transportation Management Plan, no material adverse impact to the roads from construction vehicles or equipment delivery is anticipated to occur. (Kingwood Ex. 1, Appx. H at 3-5; Kingwood Ex. 19 at 4.) The majority of the equipment to be transported to the Project Area will be on delivery vehicles that are of legal dimension and legal weight. (*Id.*) For any necessary oversize/overweight loads, such as for Project substation equipment, Kingwood **will obtain a special hauling permit** from the Ohio Department of Transportation (“ODOT”) and/or local jurisdiction, as applicable, and will coordinate with necessary local and state officials to minimize disruptions. (*Id.*) Lee Saunders testified that **no special improvements to roads or bridges in the Project Area are anticipated and no delays**

to local traffic should be experienced, except when delivery vehicles may need to travel on narrow roadways, which would only result in intermittent delays. (Kingwood Ex. 19 at 4.)

The Applicant has also committed to conduct a more detailed pre-construction survey of local roads. (*Id.*) This would create a baseline assessment for road conditions and identify any possible impacts and mitigation measures during construction activities, as well as inform the final transportation management plan. (*Id.*) The pre-construction road survey and associated final transportation management plan will be completed in concurrence with final engineering design of the project to identify optimal access routes and ensure safe, efficient, and legal ingress to and egress from the Project Area throughout construction, while minimizing adverse impacts to traffic and roadway infrastructure in the local community. (*Id.* at 4-5.)

Lastly, Kingwood has made additional commitments in Joint Stipulation Condition 24. In that condition, Kingwood committed to:

- Coordinate with regulatory agencies such as (but not limited to) the Greene County Engineer, the ODOT, local law enforcement, and health and safety officials;
- Develop a final transportation management plan that incorporates that coordination;
- Submit that final transportation management plan to Staff prior to the preconstruction conference;
- File the final transportation management plan on the public case docket;
- Obtain all necessary transportation permits prior to the commencement of construction activities that require them; and,
- Repair any damaged local public roads, culverts and bridges, if there are any, to their previous or better condition. (Joint Ex. 1 at 7-8.)

Based on the Transportation Management Plan in the Application, Mr. Saunders's testimony, and Kingwood's commitments in the Joint Stipulation, construction or operation of the Project will

not have a negative effect on the traveling public or on the condition of the local roadways and the Board should come to the same conclusion based on the above information.

ii. The Board has Adequate Evidence to Find that Construction Noise Associated with the Project will have a Minimal Impact

Kingwood has taken a number of steps to evaluate, avoid, and minimize the impacts of construction noise. To evaluate the noise impacts of the Project during construction and operation and the effect of any noise minimization and mitigation efforts, Kingwood commissioned a noise report from Acentech. (Kingwood Ex. 1, Appendix K.) Based on that report, Alex Odom of Acentech testified that while a certain amount of unavoidable noise will be generated during construction, construction noise will be minimized as much as possible, such as limiting the time of day for which specific construction activities are allowed. (Kingwood Ex. 1 at 53; Kingwood Ex. 10 at 6.)

In an effort to further mitigate the short-lived construction noise, pursuant to Condition 30 in the Joint Stipulation, Kingwood has committed that construction will take place between 7 a.m. and 7 p.m., or until dusk when sunset occurs after 7 p.m. (Joint Ex. 1 at 9.) Pile driving operations will be limited to the hours of 9 a.m. to 6 p.m., and may occur between 7 a.m. and 9 a.m., and after 6 p.m. (or until dusk when dusk occurs after 6 p.m.) if the impact at non-participating residences will not exceed the daytime ambient Leq plus 10 dBA. (*Id.*) Kingwood has also committed to install a noise monitor to ensure that this threshold is not being exceeded if pile driving is required outside of 9 a.m. to 6 p.m. (or until dusk). (*Id.*) The condition also limits hoe ram operations from 10 a.m. to 4 p.m., Monday through Friday. (*Id.*) Finally, the condition requires Kingwood to provide a notice to adjacent landowners regarding upcoming construction activities, including the potential for nighttime construction. (*Id.* at 2-3.) Given the short duration of construction and the

limitations on time for construction activities, including pile driving, the Board has more than adequate evidence to find that the Project's construction noise will have a minimal impact.

iii. The Board has Adequate Evidence to Find that Operational Noise Associated with the Project will have a Minimal Impact

Operational noise from the Kingwood Solar Project will have a minimal impact on non-participating residences because compared to other types of power generation facilities, potential noise impacts from a solar project are limited (Kingwood Ex. 1 at 55). Utility scale solar facilities have a number of different sources of noise, with different levels of noise produced based on the generating source. (Kingwood Ex. 10 at 5.) Substation transformers typically are the loudest source of noise within a utility scale project. (Kingwood Ex. 1, Appendix K at 3.) Next loudest are the distribution transformers followed by the inverters. (*Id.*) Tracker motors typically produce the least amount of sound. (*Id.*)

All of the sound-producing equipment operates during the day, but not all of it actually produces sound continuously. (Kingwood Ex. 10 at 5.) The tracker motors only produce sound intermittently, when the panels adjust position to "track" the sun. (*Id.*) The other equipment (substation transformers, inverters, and distribution transformers) produce sound generally consistently. (*Id.*) In addition to the daytime operation, the Project also maintains the ability to operate at up to 60 percent capacity at night to provide reactive power to the grid (Kingwood Ex. 1 at 65; Kingwood Ex. 10 at 6.) Based on the agreement with PJM, the Project has the flexibility to achieve this by all inverters operating at 60% capacity or 60% of all inverters operating at 100% capacity. (*Id.*) The tracker motors will not operate at night. (Tr. Vol. II at 435-36.)

(a) Noise Modeling Supports Minimal Noise Impact

Kingwood commissioned Acentech to complete a noise evaluation of the Project. (Kingwood Ex. 1, Appendix K.) Acentech's study included both a field survey to measure the

existing ambient sound levels, and acoustic modeling to predict the operational sound produced by the Project and the relative increase over the ambient conditions. (*Id.* at 2-3.) The measured average ambient daytime Leq at Locations 1, 2, and 3 were 51 dBA, 49 dBA, and 42 dBA, respectively. (*Id.* at 4.) The measured average ambient nighttime Leq at Locations 1, 2, and 3 were 46 dBA, 42 dBA, and 37 dBA, respectively. (*Id.*) According to Mr. Odom, these results are **consistent with sound levels in rural environments.** (*Id.*)

Mr. Odom testified that the following noise producing equipment at the Project was utilized in Acentech's modeling: inverters (qty. 52), distribution transformers (qty. 52), a substation transformer (qty. 1), and tracker motors (qty. 127). (Kingwood Ex. 10 at 5.) The daytime noise modeling assumed that all tracker motors would continuously operate; however, in reality, they will operate intermittently and asynchronously. (*Id.*) Acentech then calculated noise levels at 50 non-participating residences in the surrounding neighborhood within 250 feet of the Project. (*Id.*) For each non-participating residence, Acentech assigned it a representative ambient noise level based on the geographically nearest monitoring location. (Tr. Vol. II at 455; Kingwood Ex. 10 at 5.) The noise level represents the combination of sound from every single project source that will be heard at that particular non-participating residence. (Tr. Vol. II at 440.) Acentech determined that the Project sound sources **will not increase daytime sound** levels at non-participating residences **by more than 2 dBA above the assigned ambient Leq level.** (Kingwood Ex. 10 at 5.)

Acentech also modelled the Project sound impact at night during reactive power. (Kingwood Ex. 10 at 5-6.) However, because of the lack of sound data to characterize equipment sound levels at 60% capacity, Acentech conservatively assumed the nighttime sound characteristics of the inverters would remain unchanged from daytime performance to model

nighttime operational noise. (*Id.*) Tracker motors were the only source of sound that Acentech assumed would not operate at night. (Tr. Vol. II at 435-36.) Acentech's modeling indicated that Project sound sources **would not increase nighttime sound** levels at non-participating residences by more than **4 dBA above the assigned ambient Leq level**. (Kingwood Ex. 10 at 5.)

(b) Additional Setbacks Reduce Noise Effects Even Further

After the filing of direct testimony, Mr. Odom filed supplemental direct testimony to discuss the increased setback of **500 feet** for inverters, which reduced the operational Project noise experienced by non-participating residences. (Kingwood Ex. 11 at 3.) With the revised layout incorporating a minimum inverter setback of 500 feet, Acentech determined that the Project sound sources **will not** increase daytime sound levels at non-participating residences **by more than one dBA** above the designated ambient Leq, and will not increase nighttime sound levels at non-participating residences **by more than 3 dBA** above the designated ambient Leq. (*Id.*) Both of these results show an **improvement** over the initial analysis. (*Id.*)

As Mr. Odom testified in his rebuttal testimony, applying the wind rule standard of Leq + 5 dBA for this Project is consistent with the Board's approach for wind farms and also the Board's approval of the standard in other utility scale solar projects. (Kingwood Ex. 102 at 3.) Acentech's modeling demonstrates that with the revised layout, the Project will comply with the Leq + 5 dBA standard. Thus, the Board has sufficient evidence to find that the Project's operational noise will have no more than minimal impact.

(c) Any Possible Noise can be Easily Mitigated

However, regardless of modeling results, both Mr. Odom and Citizens for Greene Acres' noise witness (Robert Rand) **agree that any operational noise issues can be mitigated**. (See, e.g., Kingwood Ex. 10 at 6 [Mr. Odom's direct testimony]; and Tr. Vol. V. at 954 [Mr. Rand's

cross-examination].) In his direct testimony, Mr. Odom explained that noise emanating from inverters can be **mitigated in various ways**, including utilizing a noise barrier wall, an acoustic enclosure, or third party noise control, such as additional noise mitigation elements including, but not limited to, air inlet and exhaust acoustic louvers or sound attenuators. (Kingwood Ex. 10 at 6.) Mr. Rand, on cross-examination, agreed that such measures will mitigate operational noise from the Project. (Tr. Vol. V. at 954.) However, while Mr. Rand, believes that noise control retrofit might be impractical due to space and engineering constraints (*Id.* at 1014)⁵, Mr. Odom testified that post-construction noise control can typically be applied easily to solar projects. (Kingwood Ex. 102 at 2.) For example, the concrete footings and equipment pads around the inverters and substation transformer could support a noise barrier wall to allow for easy post-construction mitigation. (*Id.*)

Mr. Odom also testified about Joint Stipulation Condition 30, which outlines the process the Applicant will follow if data for the finally selected Project transformers or inverters is not available (Kingwood Ex. 10 at 8). Specifically, if transformer manufacturer data is not available, the **model will be updated with sound emission data following the NEMA TR1 standard** (*Id.*). If inverter manufacturer data is not available, a similar inverter model will be used to update the sound propagation model prior to construction (*Id.*). Once constructed, sound level measurements will be made in close proximity to an inverter to determine the sound power level of the installed inverter (*Id.* at 8-9). If the sound power level of the installed inverter is 2 dBA or more above the sound power level used in the updated pre-construction model, then the sound propagation model will be updated to ensure project-wide compliance with the applicable sound level limit (*Id.* at 9).

⁵ Note, Mr. Rand has never “done any mitigation for inverters for solar farms.” (Tr. Vol. V. at 990.)

If the sound power level is determined to be less than 2 dBA above the sound power level used in the updated pre-construction model, then the project will be deemed in-compliance (*Id.*).

(d) The Board has accepted Joint Stipulation Condition 30 in Other Projects

Mr. Odom explained that this particular condition has been accepted by the Board in various previous cases as an alternative method of compliance in the event sound data is not available. (*Id.* at 8.) Importantly, this condition will prohibit the Project from producing **more than 5 dBA** of noise from the existing average ambient Leq level existing at each non-participating residence. (Tr. Vol. II at 466-67.) The **Board has previously approved a Leq plus 5 dBA metric in operational noise conditions for other utility scale projects**, and consequently, using the Leq measurement in this proceeding is consistent with past Board approach. (Kingwood Ex. 102 at 3).

(e) Sound will be Further Reduced Inside Residences

A final point, Mr. Odom testified that any kind of standard building construction with windows closed **would reduce** existing sound levels by **approximately 20 dBA**. (Tr. Vol. II at 485.) Operational noise will not be an issue at non-participating residences. Because of these conservative noise estimates and the availability of additional mitigation methods that can be installed, if necessary, the Board has adequate evidence to conclude that the operational noise associated with the Project will have a minimal impact on non-participating residences.

iv. The Board has Adequate Evidence to Find that the Project's Electromagnetic Fields will be Minimal

PV arrays generate weak electromagnetic fields ("EMF"), in the same low frequency as electrical appliances and wiring found at most homes, during the day that dissipate at short distances and are unlikely to interfere with radio or television reception. (Kingwood Ex. 1 at 73.) Also, according to the FAA, solar projects represent little risk of interfering with radar

transmission due to their low profile. (*Id.* at 74.) Accordingly, the Board may find that EMF from the Project will have no impact on the area surrounding the Project Area.

v. The Board has Adequate Evidence to Find that the Project will be Appropriately Decommissioned

Kingwood will fully decommission the Project once it has reached the end of its operational life span of 35 – 40 years. (Kingwood Ex. 1 at 34; Kingwood Ex. 19 at 5-9.) Kingwood has committed to return the Project Area back to original conditions; this commitment is reflected in Joint Stipulation Condition 35. Should the Board choose to adopt this condition as part of a Certificate issued to Kingwood, Kingwood will prepare an updated decommissioning plan and total decommissioning cost estimate **without regard to salvage value.** (Jt. Ex. 1 at 10-11.)

(a) A Detailed Decommissioning Plan will be Enacted

As Lee Saunders, a professional engineer, testified, Kingwood has proposed a blueprint to develop a comprehensive, updated decommissioning plan. (Kingwood Ex. 19 at 5-9.) The updated plan will be prepared by an Ohio-licensed professional engineer registered with the state board of registration for professional engineers and surveyors. (*Id.*) The decommissioning financial assurance mechanism will **include a performance bond** where the company is the principal, the insurance company is the surety, and the Board is the obligee. (*Id.* at 8.) The bond will be posted prior to the commencement of construction and filed on the public docket 30 days prior to the preconstruction conference. (Jt. Ex. 1 at 10-11.) As part of the decommissioning process, the Applicant **will remove all equipment within one year after the Project permanently ceases** commercial operations and will monitor the site for at least one additional year to ensure successful revegetation and rehabilitation subject to landowner permission to access the site. (Kingwood Ex. 19 at 5-7.) Kingwood **will coordinate repair of public roads damaged or modified during the decommissioning and reclamation process.** (Kingwood Ex. 19 at 8; Jt. Ex. 1 at 10-11.) Finally,

the bond shall be recalculated every five years by an engineer retained by the Applicant. (*Id.*) **The Board has recently approved this decommissioning condition in prior solar proceedings.** *See, e.g., In re Tymotchee Solar, LLC*, Case No. 21-04-EL-BGN, Opinion, Order, and Certificate (Mar. 17, 2022), at 49-50; *In re AEUG Union Solar, LLC*, Case No. 20-1405-EL-BGN, Opinion, Order, and Certificate (Feb. 17, 2022), at 40-41; and *In re Union Ridge Solar, LLC*, Case No. 20-1757-EL-BGN, Opinion, Order, and Certificate (Jan. 20, 2022), at 46-47.

(b) The Decommissioning Plan Deals with all Aspects of Decommissioning

Both the application and testimony from Kingwood witnesses include detailed descriptions of the decommissioning process. (*See, e.g.,* Kingwood Ex. 1, Kingwood Ex. 6, and Kingwood Ex. 19.) Decommissioning will occur within one year following discontinuation of Project operations and will involve the **removal of all system components** and the **restoration of the site to conditions similar to pre-construction**, subject to landowner preference. (Kingwood Ex. 19 at 5-6.) Prior to decommissioning, the site will be assessed for existing conditions and any necessary erosion and sediment controls will be installed. (*Id.* at 6.) Then, all aboveground equipment, such as wiring, panels, racking, and inverters, **will be removed after the Project is de-energized** by disconnection from the utility power grid. (*Id.*) In addition, **any holes and/or depressions will be filled.** (*Id.*) Steel pilings which supported the module racking will be mechanically removed and any resulting holes will be backfilled. (Kingwood Ex. 19 at 6.) The concrete transformer and interconnection equipment pads will be **broken up and removed.** (*Id.*) The on-site access roads servicing the Project and the security fencing around the Project will remain in place during decommissioning activities to support the removal of equipment. (*Id.*)

Once all Project equipment has been removed, Kingwood has **expressly committed to return the property back to conditions similar to pre-construction**, based on landowner

preference. (Kingwood Ex. 1 at 38; Kingwood Ex. 6 at 15; Kingwood Ex. 19 at 9.) Reclamation will restore the vegetative cover and hydrological function consistent with pre-construction conditions after the Project ceases operations. (Kingwood Ex. 1 at 38; Kingwood Ex. 19 at 6-7.) Any excavated areas remaining after the removal of equipment pads, access road base material, or fence posts will be backfilled with locally imported soil. (*Id.*)

Mr. Saunders testified that the proposed condition and Kingwood's commitments in the Application ensures that the Project will be appropriately decommissioned when it permanently ceases commercial operations. (Kingwood Ex. 19 at 9.) Furthermore, he stated that "[g]iven the relatively low impact of a solar farm, decommissioning of the Project should not be a significant impediment to future uses of the Project Area, including a potential return to agricultural use." (*Id.*) Kingwood has provided sufficient commitments to ensure funding is available for decommissioning and that the Project will be properly decommissioned such that the Project Area is returned to agricultural use (subject to landowner desires). The Board should similarly find that the Project will be appropriately decommissioned.

vi. The Board has Adequate Evidence to Find that the Project's Impacts on Drainage, Runoff, and Drain Tile will be Minimal

(a) Drainage and Runoff Impacts will be Minimal

The record evidence establishes the Project's **environmental impact on drainage and runoff will be minimal**, if any. The Project Area is located in an area of minimal flood hazard, as defined by the Federal Emergency Management Agency, with the exception of areas along Clark Run, which extends through southerly portions of the Project Area. (Kingwood Ex. 1 at 64.) The Project Area is largely outside of high flood depth areas and the Project layout was deliberately designed **to avoid above-ground features in 100-year floodplain designated areas**. (Kingwood Ex. 2 at 34, 164-65.) No solar panels are proposed in areas of the mapped floodplain. (Kingwood

Ex. 1 at 64; Kingwood Ex. 2 at 34.) Project-related work in the floodplain is primarily associated with proposed underground electrical connections, which will not increase the potential for flooding. (*Id.*)

(1) No Karst Features Identified

No identified karst features have been identified in the Project Area, as noted in Figure 08-4 and are not anticipated to have an influence on the Project. (Kingwood Ex. 1, Figure 08-4; Kingwood Ex. 2 at 164-65.) As Dr. Nealon testified, most of the Project Area has deep bedrock and there are no known or suspected karst features within the Project Area. (Kingwood Ex. 13 at 3, 5.) Further, Joint Stipulation Condition 8 includes a commitment from Kingwood that it will avoid construction in areas with karst features, if possible. (Jt. Ex. 1 at 4.) If Kingwood utilizes mitigation measures instead of avoiding a karst feature, such as a sinkhole, then Kingwood's consideration of those mitigation measures will include potential hydrogeological impact. (*Id.*; Kingwood Ex. 13 at 6.) Dr. Nealon testified that this should be "considered a routine geotechnical issue" and that "[t]he presence of karst is not expected to have any adverse impact on either the installation or long-term performance" of the Project. (Kingwood Ex. 13 at 6.) Overall, Kingwood will closely monitor any possible karst areas, as identified by the Ohio Department of Natural Resources, when consulting with the engineering, procurement, and construction contractor during pre-construction activity. (Kingwood Ex. 2 at 165.)

(2) No Impacts on Drainage or Runoff

Based on the commitments Kingwood has made, Noah Waterhouse, a licensed professional engineer with seven years of experience in the solar industry, concluded that the Project should **not have an impact on drainage, nor should it result in an increase in runoff** from the Project Area. (Kingwood Ex. 14 at 1, 5.) Mr. Waterhouse also concluded that based on his experience, though the solar panels and some of the ancillary equipment are impervious, the large gaps between

panel arrays to prevent shading and other open areas, combined with the vegetation surrounding and beneath each panel, means that drainage and runoff characteristics **should not be dissimilar from a farmed field with crops growing on it.** (*Id.*) Indeed, any surface in the Project Area that does not have an equipment pad or a gravel road, will be revegetated with grasses and plants. (Tr. Vol. III at 565; Kingwood Ex. 1, Appx. O at 4.) As a result, Mr. Waterhouse believes that when compared to a fallow field, he expects the Project **to have superior drainage and runoff characteristics, due to the year-round vegetation maintained in and around the Project Area.** (*Id.*)

Despite minimal impact, Kingwood is committed to developing a SWPPP prior to initiating Project construction. (Kingwood Ex. 1 at 13.) The SWPPP will detail temporary stormwater management features, as necessary, as well as silt fencing or other erosion control devices proposed to limit off-site transport of sediment. (*Id.*) Plans associated with appropriate dewatering discharge, including measures to limit erosive forces, will also be addressed. (*Id.*) Kingwood will also file a notice of intent with the Ohio EPA for coverage under the NPDES General Construction Stormwater Permit No. OHC000005. (*Id.*) For these reasons, the Board should find that the Project's impacts on drainage and runoff will be minimal.

(b) Drain Tile will be Avoided, Protected and Repaired if Necessary

Kingwood is committed to avoiding damage to drain tile in the Project Area, where possible, and making any repairs to damaged tile promptly. This commitment is reflected in **three, separate Joint Stipulation conditions**, all of which **will work to protect the existing drain tile system in the Project Area and minimize unwanted drainage issues.** (Jt. Ex. 1 at 9-10.)

(1) Condition 32 Requires Kingwood to Minimize Damage and Repair Drain Tiles

Pursuant to Condition 32, Kingwood is to avoid or minimize, to the extent practicable, any damage to functioning field tile drainage systems and compaction to soils resulting from the construction, operation, and/or maintenance of the facility in agricultural areas. (*Id.* at 9.) Kingwood also commits to promptly repair or reroute damaged tile to at least original conditions or modern equivalent at the Applicant's expense to ensure proper drainage. (*Id.* at 9). An affected landowner may agree to not having tile repaired only if the tile systems of adjacent landowners remain unaffected by the non-repair, non-replacement, or non-rerouting of the landowner's tile system and the damaged field tile does not route directly to or from an adjacent parcel. (*Id.* at 9-10.) Kingwood also has to consult with any landowner that submits a complaint to the Applicant related to drainage issues on the landowner's property. (Jt. Ex. 1 at 10.)

(2) Conditions 33 and 34 Lay Out Drain Tile Protections

Next, **Condition 33 dictates the repair process** for any damaged main drain tile. (*Id.*) If such tile is impacted due to the Project construction, Kingwood will repair (or reroute) it no later than 10 days after such damage is discovered, pending weather and contractor availability. (*Id.*) Once the Project is operational, Kingwood will repair a damaged drain tile no later than 45 days after such damage is discovered, pending weather and contractor availability. (*Id.*)

Finally, **Condition 34** lays out the methods through which Kingwood **can identify locations of existing drain tiles** which include conducting a tile search, consulting with adjacent parcel owners, **consulting** with the Greene Soil & Water Conservation District and the Greene County Engineer, and documenting benchmark conditions of surface and subsurface drainage systems prior to construction. (Jt. Ex. 1 at 10.) Kingwood will also allow a District inspector to help determine, inspect, and, as necessary, require its contractor to make necessary repairs to

damaged drain tile during the time Kingwood is conducting field searches for tile or conducting construction work and for **up to twelve months** after completing construction. (*Id.*)

Mr. Waterhouse explained in detail about how drain tile locations will be identified in the Project Area by using both desktop and onsite physical evaluation of the Project Area. Desktop evaluation includes review of aerial images, location of inlets and outlets, soil subsidence, and topography. (Kingwood Ex. 14 at 3.) Additionally, fields with more recent drain tile installations already have GPS mapping of the tile as this is standard practice nowadays. (*Id.*) Next, physical evaluation of drain tile includes:

- Using an excavator or other small piece of equipment to dig trenches perpendicular to the suspected drain tile route until the pipe is exposed, where it can be marked and surveyed.
- Using a T-handled steel rod during soft soil conditions to press vertically down into the soil where drain tile is suspected to occur. When the rod touches a tile, the spot is marked and surveyed.
- Using a maverick tile finder. A flexible rod is inserted into the drain tile at a known location. Embedded in the rod is a copper wire that sends a signal to a locator on the surface. The locator traverses the approximate drain tile route above and when a positive signal is encountered, the location is marked and surveyed (*Id.*).

Mr. Waterhouse testified regarding the efficacy of these methods and he has utilized them effectively on most of the projects that he has designed in similar land uses. (Kingwood Ex. 14 at 3.) Mr. Waterhouse also noted that the Project Area is not unique and that **these methods can be effectively utilized to identify existing drain tile in the area.** (*Id.* at 4.)

Mr. Waterhouse also noted that if advance identification is not possible, damaged drain tile can be easily identified and repaired during construction. (Kingwood Ex. 14 at 4.) Damaged drain tile generally can be identified by the presence of water flowing out of the ground in an unexpected location. (Tr. Vol. III at 564; Kingwood Ex. 14 at 4.) Specifically, if a pile has pierced the drain tile, then the water will flow out of the ground somewhere in the vicinity of the pile or along the

pile itself. (Tr. Vol. III at 564.) Excavating the area and following the source of the flowing water will lead to any broken pipe. (Kingwood Ex. 14 at 4.)

(3) Damages can be Located and Repairs can be Made

According to Mr. Waterhouse, in his experience, the construction period for this Project is long enough for an ample number of rain events to reveal any locations in which tile was damaged but not immediately discovered and repaired. (*Id.*) Moreover, drain tile can also be repaired after the Project is constructed by excavating to uncover the damaged area, repairing the damaged tile, and backfilling. (*Id.*) A small excavator capable of working between the rows of solar panels can be utilized. (Kingwood Ex. 14 at 4.) Notably, while Mr. Waterhouse, who has worked **on more than 50 solar projects**, is not aware of any solar projects requiring drain tile repair after construction, he has observed the addition of drain tile within a solar installation for the purpose of correcting an area of poor drainage that existed prior to the project. (*Id.* at 2, 4.)

Given Kingwood's commitment to three Joint Stipulation conditions pursuant to which it will identify drain tile to **minimize impacts, avoid drain tile** during construction, **promptly repair** any damage, and allow a District inspector to further evaluate the drain tile in the Project Area, the Board has **adequate evidence to determine the Project's impact on drain tile will be minimal.**

vii. The Board has Adequate Evidence to Find that the Project is Designed to Withstand High Winds

Alex Roedel, employed by Nextracker Inc. ("Nextracker") and with 13 years of experience in the solar industry, testified that based on his experience and knowledge about Nextracker installations around the world, the Project Area represents **a low-risk based on wind, snow, temperature, seismic, and soil conditions.** (Kingwood Ex. 16 at 2, 7.) Nextracker is the **global market leader** for solar trackers at about 30 percent market share. (Tr. Vol. III at 588.) The

company has installed trackers in projects of various size totaling 55 GWs. (Kingwood Ex. 16 at 2.) Roughly 40% of all solar tracker projects in the US and 30% of solar tracker projects globally use Nextracker's product. (*Id.*) Nextracker trackers have been selected for the largest project in the United States in Indiana, which is roughly five times larger than the Kingwood Solar Project. (*Id.*) **Nextracker's trackers have been installed in six continents and nearly all environments** including deserts (e.g. Chile, U.A.E., Arizona, and California), cold climates (e.g. Canada, Kazakhstan, and Minnesota), and regions prone to hurricanes (e.g. Australia, Mexico, Texas, Florida, and Louisiana) and tornadoes (e.g. Illinois, Indiana, Tennessee, and Texas). (*Id.* at 1-2.)

A solar tracker is the most common solar panel mounting structure used in large-scale installations and angles the solar panels with the sun throughout the day. (Kingwood Ex. 16 at 3.) As depicted in Figure 4, a tracker is designed of steel components, most notably pile foundations, torque tubes, and module rails used to mount solar panels, and an electric motor. (*Id.*) A typical solar mount will contain one tracker and will support 80-90 panels. (*Id.*) The overall length of a single tracker is approximately the size of a football field. (*Id.*) The tracker's electric motor is located in the middle of the tracker. (Kingwood Ex. 16 at 3.) The trackers are controlled by electrical components programmed to position the solar panels to the correct sun angle throughout the day and/or defense position in presence of high winds. (*Id.*) Depending on the time of the year, a tracker will move the panels attached to it one or two degrees every five minutes or so, beginning in the east with the sunrise and moving west throughout the day. (Tr. Vol. III at 589.)



Figure 4: depiction of a tracker installation.⁶

Nextracker takes into account high wind events in the design of a tracker. (Kingwood Ex. 16 at 5.) The company has done extensive analysis and is certified by CPP Wind Engineering Consultants (“CPP”), the most notable wind-engineering firm in the United States. (*Id.*) CPP is on the board of American Society of Civil Engineers (“ASCE”) (organization responsible for technical guidelines such as the national engineering code) and also conducts wind analysis on skyscrapers and other structures. (*Id.*) Nextracker’s analysis includes consideration of the engineering code, required building regulations, wind tunneling testing results from CPP, physical field verification, and advanced engineering analysis. (*Id.*) Nextracker’s analysis has resulted in advanced control systems, including anemometers (a device used for measuring wind speed and direction) placed in solar fields, as well components such as dampeners installed to reduce the effects of high winds. (Kingwood Ex. 16 at 5.) High wind data will be collected through a

⁶ During the hearing, Mr. Roedel explained that the post in this image is the motor post. The gold portion is the gearbox and on the other side of the gearbox, there is a small motor that moves the solar panels attached to the motor post. (Tr. Vol. III at 622.)

comprehensive monitoring system, which will include data on any faults, loss of communication, operating angles and other commands, and will be reported to Kingwood. (*Id.* at 6).

The anemometer wind sensors placed around project sites **allow the trackers to go into a wind stow defense position in the event of high winds on site.** (*Id.*) The wind sensors include data to take into account both wind speed and direction. (*Id.*) Based on these variables, the tracker will stow into the direction of the wind to utilize downforce as well as go to a 60-degree defense position. (Kingwood Ex. 16 at 6.) This position is chosen in efforts to reduce the dynamic effects of wind on both the solar panels and tracker structure and preventing any damage to the tracker system and PV panels. (*Id.*) The trackers will also go into a 60-degree defense position during other weather events, such as hail above two inches, to avoid a direct impact with solar panels. (Tr. Vol. III at 601-02.)⁷

The trackers expected to be utilized for this Project **will be rated to a minimum of 105 mph winds**, based on the application of ASCE 7-16, which is an engineering code that prescribes a set of minimum requirements for the structural requirements for all permanent structures, including buildings. (Kingwood Ex. 16 at 7.) That code was used to determine the required wind speeds, seismic, snow, and ice loads to design the trackers for this Project. (*Id.*) The trackers are designed to withstand winds blowing more or less in a straight line and also rotating winds. (Tr. Vol. III at 604.) The 105 mph rating is derived from ASCE 7-16 and reflects a once in a 300-year event. (Kingwood Ex. 16 at 7.) Of note, this code is referenced in the Ohio Building Code (“OBC”), although the code referenced in the OBC is ASCE 7-10, which is the 2010 version of the code, while ASCE 7-16 is the 2016 version of the code. (*Id.*)

⁷ Mr. Roedel explained that within the solar panel industry, the overall design criteria for solar panels is the ability to withstand hail around two inches. (Tr. Vol. III at 601.)

Mr. Roedel testified that while solar installations are not built to withstand tornadoes, in his experience, **only one** of Nextracker's projects have been effected by a tornado and experienced only minimal damage. (Kingwood Ex. 16 at 6; Tr. Vol. III at 613, 617.) Specifically, Mr. Roedel explained that solar installations fall into risk category one under the ASCE 7-16, which is the same risk category as a standard building, such as a home. (Tr. Vol. III at 610-11.) This category under the building code is not required to be built to withstand tornadoes. (*Id.* at 611.) However, Mr. Roedel, who has 13 years of experience in the solar industry and has worked on 400 – 500 solar projects for Nextracker, is aware of **only one** project site in West Texas which sustained reportable damage to trackers and panels due to a tornado. (Tr. Vol. III at 627-28; Kingwood Ex. 16 at 1-2, 6.) The tornado involved winds measuring around 80 miles per hour. (Tr. Vol. III at 612.) The tornado damaged small portions of the site, however all debris were displaced 10 feet or less from the install location and all damage was minor. (Tr. Vol. III at 611; Kingwood Ex. 16 at 6.) No debris exited the boundary of the site or caused significant damage or any human harm. (Tr. Vol. III at 613; Kingwood Ex. 16 at 6.) Specifically, the damage included 40 – 50 trackers damaged with small portions of tubes dislodged and modules displaced about 10 feet from the mounting structure. (*Id.*) **All damage was repairable.** (Kingwood Ex. 16 at 6.)

Mr. Roedel explained **Greene County does not experience a higher risk of tornadoes** compared to other areas of the country based on available data from the Federal Emergency Management Agency and known tornado maps. (Tr. Vol. III at 627.) He clarified that Tornado Alley is known as an area in north Texas, Oklahoma, and Kansas, which represents the highest risk of tornados. (*Id.*) He also mentioned that Nextracker has placed multiple projects in north Texas, which has a higher risk of tornados than in Ohio. (*Id.*) And again, the only Nextracker

project he is aware of that has sustained tornado damage is the one in West Texas described above. (*Id.* at 627-28.)

Finally, Nextracker trackers have also been in in various high wind events, including the following notable recent U.S. hurricanes: Ida, Maria, Irma, and others in wind speeds in excess of 130 mph. (Kingwood Ex. 16 at 5-6.) Consequently, Mr. Roedel testified that **Nextracker’s solar trackers are more than suitable for use in the Project location and will adequately minimize any risks posed by high wind events.** The Board should come to the same conclusion.

2. The Board has Adequate Evidence to Determine that the Project is Consistent with Regional Plans for Expansion of the Electric Power Grid and will serve the Interests of Electric System Economy and Reliability (4906.10(A)(4))

The Board should find that the proposed Project satisfies the statutory criterion under R.C. 4906.10(A)(4). As Staff noted in its Staff Report, the PJM Interconnection, LLC (“PJM”) Feasibility Study and System Impact Study indicated that no reliability violations would occur during single or multiple contingencies and no potential violations were found during the short circuit analysis. (Kingwood Ex. 1, Appx. C; Staff Ex. 1 at 35.) The PJM studies also revealed no overload conditions resulting from the project. (Staff Ex. 1 at 35.) And, importantly, the Project **will provide additional grid reliability** by providing “on peak” power during the high demand period of mid-day and late afternoon. (Kingwood Ex. 6 at 4.) The Project will also help meet electricity demand in the region, **particularly in light of the recent and planned retirements of existing coal-fired generating assets** located in Ohio and throughout the PJM system. Kingwood Ex. 107 at 8.) As Mr. Stickney testified, recent announcements by generators in PJM have indicated an expected 50%, or 25 GW, reduction in coal-fired utility-scale generating capacity in the next eight years, including more than 3.5 GW of reduced capacity in Ohio alone. (*Id.*) Accordingly, the Project is consistent with regional plans for expansion of the regional power

system and will serve the interests of electric system economy and reliability. The Board should find that this statutory criterion has been met.

3. The Board has Adequate Evidence to Determine that the Project will comply with R.C. Chapters 3704, 3734, and 6111 and All Rules and Standards Adopted Under Those Chapters and Under R.C. 1501.33, 1501.34, and 4561.32 (4906.10(A)(5))

The Project will comply with R.C. Chapters 3704 (air pollution control), 3734 (solid and hazardous waste control), and 6111 (water pollution control), and all rules and standards adopted under those chapters. The Project will also comply with R.C. Chapter Section 4561.32 (aeronautics), to the extent that they are applicable. Discussion of the Project's compliance with each of these statutory provisions follows.

a. The Project will Comply with R.C. Chapter 3704 (Air Pollution Control) and All Rules and Standards Adopted Thereunder

The Project **will not produce any air pollution**; therefore, no air permits are required for its construction or operation. (Kingwood Ex. 1 at 40; Staff Ex. 1 at 37.) Fugitive dust rules adopted under R.C. Chapter 3704 may be applicable to the construction of the Project, because construction will generate a small amount of fugitive dust. (Kingwood Ex. 1 at 40.) To minimize fugitive dust, Kingwood will utilize best management practices, such as minimizing disturbances, restoring or stabilizing exposed or disturbed areas, and applying water or a dust suppressant. (*Id.* at 41, 94.) Staff noted in its Staff Report that these best management practices are typically used to comply with applicable fugitive dust rules. (Staff Ex. 1 at 37.) Accordingly, the Board has adequate evidence to determine that the Project will comply with the air pollution control requirements of Chapter 3704 and the regulations adopted under that chapter.

b. The Project will Comply with R.C. Chapter 3734 (Solid Waste and Hazardous Waste Control) and All Rules and Standards Adopted Thereunder

The Project **will not produce any hazardous waste** and will comply with all solid waste control requirements. No on-site structures are proposed to be demolished in association with the Project. (Kingwood Ex. 1 at 45.) Project construction will generate limited amounts of non-hazardous, solid waste, which will be reused, recycled, or disposed of in accordance with applicable requirements. (*Id.* at 46.) Construction and operation of the Project will not generate any hazardous wastes, and any non-hazardous, solid waste that is not reused or recycled will be disposed of in a sanitary landfill. (*Id.*) Moreover, Condition 36 of the Joint Stipulation ensures that any retired panels not recycled will be sent to an engineered landfill. (Joint Ex. 1 at 11). Project operation will not require any waste generation, storage, treatment, transportation, and/or disposal licenses or permits. (Kingwood Ex. 1 at 47.) Board Staff concluded that Kingwood's **solid waste disposal plans will comply with solid waste disposal requirements** set forth in R.C. Chapter 3734. (Staff Ex. 1 at 38.) With this record evidence, the Board may find that the Project will comply with R.C. Chapter 3734 and the rules and standards adopted thereunder.

c. The Project will Comply with R.C. Chapter 6111 (Water Pollution Control) and All Rules and Standards Adopted Thereunder

The Project has been designed to **minimize impacts to streams and wetlands and will use very little water during operation**. The Project will entirely avoid impacts to the 1.52 acres of wetlands and all perennial stream segments identified in the Project Area. (Kingwood Ex. 8 at 7.) This will be done by either avoiding the area entirely (for wetlands), or by using construction techniques, such as horizontal directional drilling ("HDD"), to install collection lines without impacting the stream. (*Id.*) Construction of the Project collection lines might result in temporary impacts to non-perennial streams in the Project Area; however, those temporary impacts would

only occur under limited circumstances and would be eligible for coverage under a U.S. Army Corps of Engineers nationwide permit (and associated Ohio EPA Section 401 water quality certification). (*Id.*) If those circumstances are not present, HDD or similar techniques would be used to avoid impacts to the non-perennial streams. (*Id.*)

Project construction will also involve few activities that might produce stormwater pollution. (Kingwood Ex. 19 at 12.) Kingwood is eligible for and will apply for coverage under the Ohio General Construction Permit (Ohio EPA Permit No. OHC000005) to mitigate any potential effect the Project has on stormwater. (Kingwood Ex. 1 at 42; Kingwood Ex. 19 at 13.) Condition 19 of the Joint Stipulation requires Kingwood to incorporate not only applicable post construction stormwater management practices under OHC000005) but also to incorporate applicable guidance from the Ohio EPA's Guidance on Post Construction Storm Water Controls for Solar Panel Arrays. (Joint Ex. 1 at 6.)

Once constructed, the Project will not directly discharge water or waste into streams or waterbodies. (Kingwood Ex. 1 at 43.) The Project is sited on land that has already been cultivated for agriculture and only small areas of impervious surfaces, in the form of access roads and gravel pads, are being added, which only amount to 2% of the Project Area. (*Id.* at 44.) These features will have a **negligible effect on surface water runoff and groundwater recharge.** (Kingwood Ex. 19 at 14.) A formal spill prevention control and countermeasures ("SPCC") plan will prepared and implemented if aboveground oil storage capacity will exceed 1,320 gallons. (Kingwood Ex. 2 at 10; Kingwood Ex. 19 at 14.) Lee Saunders, a registered professional civil engineer, testified that the construction and operation of the Project will not result in any form of contamination to receiving streams of the Project Area. (Kingwood Ex. 19 at 14.) Finally, the

Project **has near zero water consumption requirements**, no permit for water consumption will be required. (Kingwood Ex. 1 at 8, 10, 45).

Staff concluded in its Staff Report that construction and operation of the Project will comply with the requirements of the water pollution control statute, R.C. Chapter 6111, and the rules and laws adopted under that chapter. (Staff Ex. 1 at 37-38.) The Board should reach the same result given the evidence in the record, which includes Mr. Saunders's expert and undisputed testimony.

d. The Project will Comply with R.C. 4561.32 (Aeronautics) and all Rules and Standards Adopted Thereunder

The Project will have **no impact on aviation**. There are no public airports, helicopter pads, or landing strips located within two miles of the Project Area. (Kingwood Ex. 1 at 48.) Most of the Project will be installed 14 feet or less above the ground, and therefore is unlikely to impact air transportation. The highest point of the Project will be the substation lightning mast that will be approximately 70 feet in height, but the bulk of the Project structures, such as the solar arrays and inverters, will be 14 feet or less. (Kingwood Ex. 1 at 74.) Based on the low visual profile of the Project, **no adverse effects to the regional air transportation network are expected** from the Project. (*Id.* at 105.) Additionally, solar panels for this project will use anti-reflective glass coating and are designed to absorb the light, reducing potential for glare. (Tr. Vol. II at 347-48; Kingwood Ex. 1 at 48.) In accordance with R.C. 4906.10(A)(5), Board Staff contacted the Ohio Department of Transportation, Office of Aviation, during the review of this application in order to coordinate review of potential impacts of the Project on local airports and identified no concerns. (Staff Ex. 1 at 39.) Notably, the Federal Aviation Authority issued a Determination of No Hazard to Air Aviation to the Project on February 18, 2021. (Kingwood Ex. 6 at 35; Staff Ex. 1 at 38.)

The Board has adequate evidence to find that the Project will comply with R.C. 4561.32 and the rules and standards adopted thereunder.

4. The Board has Adequate Evidence to Determine the Project will Not Negatively Impact the Viability of Agricultural District Land (4906.10(A)(7))

The Project will not permanently impact any agricultural district land beyond the life of the Project. Per the Application, approximately 205 acres of agricultural district land will be impacted for the Project life. (Kingwood Ex. 1 at 120; Staff Ex. 1 at 45.) The bulk of the agricultural district land (200 acres) within the Project Area will only have minor impacts from the solar arrays and piles. (Kingwood Ex. 1 at 120.) However, the **entirety of the agricultural district land can be restored to agricultural use when the Project is decommissioned.** (*Id.* at 121.) Further, Staff agrees that this land can be utilized for agriculture again after Project decommissioning. (Staff Ex. 1 at 45.) Lastly, there is evidence that the Project could provide a **net benefit to the agricultural district land** for the Project life due to the pollinator-friendly plantings proposed. (Tr. Vol. VIII at 2006; Kingwood Ex. 8 at 10-11; Kingwood Ex. 103 at 4.) As such, the Board has adequate evidence to determine the Project will not negatively impact the viability of agricultural district land.

5. The Board has Adequate Evidence to Determine that the Project Incorporates Maximum Feasible Water Conservation Practices (4906.10(A)(8))

The Project **will not use any water for the generation of electricity. Nor will the Project have any sanitary water discharge.** (Staff Ex. 1 at 46.) Project construction will use limited water, as needed, for dust suppression and control. (*Id.*) Similarly, the only water use during the Project operation would be a minimal amount of water for cleaning solar panels, as necessary. (Kingwood Ex. 1 at 8, 10, 41.) Kingwood anticipates a maximum total of approximately 282,000

gallons during the year for routine cleaning. (Kingwood Ex. 2 at 11.) Based on the minimal water usage related to the Project, the Board should find, as its Staff did, that the Project incorporates maximum feasible water conservation practices. (Staff Ex. 1 at 46.)

C. The Board Should Adopt the Conditions in the Joint Stipulation filed by the Applicant and OFBF Because Each Condition Will Further Serve the Public Interest

With the statutory requirements set forth in R.C. 4906.10 being met, the Board should adopt the Joint Stipulation because it satisfies the Board's three-pronged test as it (1) is the product of serious bargaining among capable parties; (2) does not violate any important regulatory principle or practice; and (3) is in the public interest.

1. The Joint Stipulation is the Product of Serious Bargaining Among Capable, Knowledgeable Parties Represented by Counsel

As Mr. Stickney testified, the Joint Stipulation was the product of extensive negotiations between the signatory parties, which include the Ohio Farm Bureau and the Applicant. (Kingwood Ex. 7 at 2.) Also, the Joint Stipulation incorporated feedback from and addresses concerns raised by intervenors who participated in settlement discussions even though they were ultimately not signatories to the Joint Stipulation. (*Id.*) Specifically, Kingwood met with a number of the intervenors to discuss various aspects of the Project, including the Project layout, screening, and other items of concern over the last few months. (*Id.* at 21) From those meetings, **the Applicant prepared a revised layout with increased setbacks and enhanced screening that were directly responsive to concerns raised by other parties.** (*Id.*) These conversations also yielded a revised set of conditions representing commitments made by the Applicant beyond the proposed conditions in the Staff Report. (Kingwood Ex. 7 at 21.) All parties were also invited to an all-party meeting that was held on February 17, 2022 to discuss stipulation conditions. (*Id.* at 22.) All of the parties involved in the proceeding **were represented by counsel** and had the opportunity

to participate in settlement discussions in this proceeding. (*Id.*) Overall, the Joint Stipulation **represents a significant investment of time and effort**. (*Id.*) Consequently, the Board should find the Project satisfies the first prong of this test.

2. The Joint Stipulation does not Violate any Important Regulatory Principle or Practice

Mr. Stickney testified that the Joint Stipulation does **not violate any important regulatory principle or practice** (Kingwood Ex. 7 at 23), and a review of the Joint Stipulation confirms Mr. Stickney's testimony. Indeed, the Board routinely grants certificates on the basis of stipulation similar to the Joint Stipulation in this proceeding. *See, e.g. In re Union Ridge Solar, LLC*, Case No. 20-1757-EL-BGN, Opinion, Order, and Certificate (Jan. 20, 2022); *In re Sycamore Creek Solar, LLC*, Case No. 20-1762-EL-BGN, Opinion, Order, and Certificate (Nov. 18, 2021). Consequently, the Board should find that this criterion is met.

3. The Joint Stipulation is in the Public Interest

The Joint Stipulation, which contains revised conditions and four new conditions representing commitments made by the Applicant beyond the proposed conditions in the Staff Report, **serves the public interest**. Initially, Kingwood notes the Joint Stipulation does not recommend approval of the Project. Instead, the Joint Stipulation **recommends** the conditions that the Board should adopt if it elects to grant a certificate of environmental compatibility and public need for the Kingwood Solar project. The revised and new conditions in the Joint Stipulation include a number of additional requirements that the Applicant must comply with if the conditions are approved by the Board as part of a certificate issuance. This includes documenting commitments the Applicant has made to **coordinate with the local government** on safety issues, such as the coordination regarding the traffic management and the emergency response training with the local communities. (Jt. Ex. 1 at 7-8, Condition 24.) It includes **further**

protections for local wildlife and ecology through restrictions on work in perennial streams and the inclusion of wildlife-friendly fencing. (*Id.* at 5-7, Conditions 15, 20, 21, and 23.) It includes substantial concessions by the Applicant to reduce the Project footprint by **increasing the setbacks**, with significant setbacks in the areas identified by local stakeholders as being particularly important. (*Id.* at 3-4, Condition 4.) It includes **substantial commitments to prevent drainage issues** that would impact adjacent homeowners or farmers such as allowing access for Greene Soil & Water Conservation District inspectors to be present during certain construction activities. (Jt. Ex. 1 at 9-10, Conditions 32, 33, and 34). Finally, it includes **increased landscape screening** to further minimize visual impacts than originally proposed in the Application. (*Id.* at 5-6, Condition 16.)

Several conditions in the Joint Stipulation also **require Kingwood Solar to directly engage with local decision makers**, including the Greene County Board of County Commissioners, the Cedarville Township Board of Trustees, the Xenia Township Board of Trustees, the Miami Township Board of Trustees, the Greene County Engineer, In Progress, LLC and the Greene Soil & Water Conservation District. (Jt. Ex. 1 at 3, 6, 7, 10, and 11.) Local governmental officials can **choose to attend preconstruction conferences**. (*Id.* at 3.) Kingwood will make pre- and post-construction stormwater calculations and will submit the calculation, along with a copy of any stormwater submittals made to the Ohio EPA, to the Greene County Department of Building Regulation and the Greene County Soil & Water Conservation District. (*Id.* at 6.) If post-construction storm water best management practices are required, Kingwood **will submit construction drawings, detailing any stormwater control measures**, to the Greene County Department of Building Regulation and the Greene County Soil & Water Conservation District. (*Id.*)

Prior to commencement of construction, Kingwood will consult with the Greene Soil & Water Conservation District regarding seed mixes for the Project and shall provide the tags on such seed mixes to the agency. (Jt. Ex. 1 at 7.) Kingwood **will also coordinate with public officials such as the Greene County Engineer and local law enforcement** for temporary road closures, road use agreements, driveway permits, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed Project. (*Id.*) **Kingwood will also consult with the Greene Soil & Water Conservation District and the Greene County Engineer** to determine the location of any tile located in a county maintenance ditch to ensure that parcels adjacent to the Project area are protected from unwanted drainage problems due to construction and operation of the Project. (*Id.* at 10.)

All of the above conditions show that the Joint Stipulation is in the public interest. A certificate should be issued for the Project given the record evidence that establishes the Project satisfies the R.C. 4906.10(A) criteria and the Board should adopt the Joint Stipulation as part of its decision.

D. The Board Should Reverse the ALJ's Decision and Require the OPSB's Executive Director to Testify as to Her Role in the Last Minute Reversal on Approval

The ALJ in this proceeding erred on multiple occasions by not ordering Theresa White, the Executive Director of the Ohio Power Siting Board, to testify in this matter. The Board should correct this procedural error. As established from other testimony in the proceedings, particularly from Ms. Juliana Graham-Price, **Ms. White's involvement was central to Staff's investigation.** Her involvement resulted in a last minute decision by Staff to not approve the Project. Yet neither her involvement nor the results of her involvement are detailed in the Staff Report. Not only is Ms. White's involvement at the eleventh hour and the omission of that involvement in the Staff Report highly irregular, but it is also a violation of R.C. 4906.07(C), which requires that the Staff

Report “set forth the nature of the investigation.” The Board has the opportunity to correct this error by ordering Ms. White to testify.

Kingwood and the public are entitled to know why Ms. White became involved and what effect that involvement had on Staff’s recommendation on the Section 4906.10(A)(6) criteria. Kingwood **sought on multiple occasions to question Ms. White** about her role in Staff’s investigation. Applicant initially filed a motion on February 25, 2022 to subpoena certain members of the Ohio Power Siting Board Staff, including Theresa White, Executive Director of the Board, to testify at the adjudicatory hearing in this proceeding. Initially, the ALJ inexplicably held the ruling in abeyance. However, after Staff’s presentation of witnesses and based on the testimony in the hearing, **the ALJ granted the motion with respect to Ms. Graham-Price but denied the motion with respect to Ms. White.** The ALJ explained that he was granting the motion due to Ms. Graham-Price’s “interactive role with some of the Intervenors.” (Tr. Vol. VII at 1912.)

At the time of ruling, the ALJ did not, however, explain why such a distinction mattered. Based on the later testimony that Ms. Graham-Price was both acting solely upon the direction of Ms. White and directly reporting the outcome of her communications with the Intervenors to Ms. White, the ALJ’s actions appear arbitrary and capricious. There is no support in the statute or case law that distinguishes the nature of the investigation based on an “interactive role.” If Ms. Graham-Price’s interactive role should be included in the record, then the reasons for why that outreach was conducted and how the results of that outreach were used in developing Staff’s recommendations should similarly be included in the record. Kingwood filed an interlocutory appeal and a request for certification advocating that the ALJ erred in not directing Staff to produce Ms. White, but the ALJ denied that request on April 14, 2022.

Immediately following, Ms. Graham-Price's testimony on April 25, 2022, the Applicant **renewed its motion for Ms. White to appear to provide testimony on the communications as being relevant to the Staff Report.** (Tr. Vol. VIII at 1962.) The ALJ again denied that request. (Tr. Vol. VIII at 1962-63.) Kingwood submitted another interlocutory appeal and a request for certification, which it filed on May 2, 2022. In that interlocutory appeal, Applicant explained that Ms. Graham-Price testified that she was acting at Ms. White's direction, **but the record is still unclear** on why **Ms. White directed the outreach.** Only Ms. White can provide that testimony, which is necessary to document the nature of Staff's investigation.

1. The Statute Supports the Full Disclosure of the Nature of Staff's Investigation

The basis for why the Board should reverse the ALJ's decision to require Ms. White to appear at the hearing is **grounded in statute.** The issuance of the Staff Report is required by statute; however, the statute does not simply require the chairperson of the board to cause the publication of a report. See R.C. 4906.07(C). The statute also includes specific requirements for what to cover in the report: "Such report shall set forth the **nature of the investigation**, and shall contain recommended findings with regard to division (A) of section 4906.10 of the Revised Code and shall become part of the record and served upon all parties to the proceeding." (*Id.*, emphasis added.) **Only Ms. White's testimony will fill the gaps on the nature of Staff's investigation.**

2. The Last Minute Communications with Four Public Entities and Their Effect on the Sudden Reversal Deserve a Thorough Vetting by the Board

The gaps in the Staff Report on its investigation are clear from the record. The record documents, principally through the testimony of Ms. Graham-Price, show that the Staff Report failed to fully report the nature of Staff's investigation. Despite Kingwood's best efforts to ascertain the full nature of Staff's investigation, particularly the extent and impact of Staff's

communications with the four intervening public entities the day before the Staff Report was due to be issued, the full nature of Staff's investigation is not in the record. No reason has been given for why Ms. White directed her subordinate to make the communications to the intervening local public authorities the day before the Staff Report was due. The Staff Report does not discuss why the outreach was made and Ms. Price cannot speak for Ms. White. Only Ms. White knows why she issued that direction – a direction that is highly irregular. Absent Ms. White's testimony, the Board will not have sufficient information on the nature of Staff's investigation. Such a failure violates R.C. 4906.07(C) and can only be remedied by Ms. White's testimony on the record.

Accordingly, **the Board should order the ALJ to reopen the record to allow Kingwood to call Ms. White to testify.** Kingwood expects that testimony to be short and following that testimony, the parties can submit supplemental briefing addressing Ms. White's testimony. Ms. White's appearance is **necessary, required and the only way the Board can ensure full transparency on its Executive Director's highly irregular directive to her subordinate.**

VI. CONCLUSION

The record before the Board contains ample evidence that the Kingwood Solar project is well-sited and will have minimal impacts on the Project Area and surrounding community. Importantly, the Project is poised to generate \$6.75 million in new economic activity. During the first year of operation alone, the Project will generate \$1.5 million in tax revenue above the Project Area's current land use and tax assessments. Additionally, concerns expressed by local residents, including the Citizens for Greene Acres Intervenors, and local public officials are all mitigated through Kingwood's commitments in the Application and commitments made in the Joint Stipulation as a result of negotiations with intervenors. The Board should not rely on the Staff's flawed analysis of "public interest, convenience, and necessity" because the evidence presented by Kingwood squarely refutes this erroneous conclusion. Kingwood has also satisfied the Board's

three-prong test for stipulations. Consequently, a certificate of environmental compatibility should be issued to Kingwood for the Project, subject to the recommended conditions in the Joint Stipulation without modification.

Respectfully submitted,

/s/ Michael J. Settineri

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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 on the service list of the docket card who have electronically subscribed to the case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being sent via electronic mail on June 13, 2022 to:

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EXHIBIT A

Kingwood Solar Project's Conditions in Comparison to Conditions Approved in Other Solar Project Proceedings

Condition	Topic	Examples of Cases with Same/Similar Approved Condition
1	Facility to be installed according to the Application, supplemental filings, Staff Report recommendations, and the Stipulation	Case Nos.: 17-773-EL-BGN (Hardin); 18-1024-EL-BGN (Willowbrook); 18-1334-EL-BGN (Hecate Energy Highland); 18-1546-EL-BGN (Nestlewood); 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud)
2	Applicant to conduct a preconstruction conference	Case Nos.: 17-773-EL-BGN (Hardin Solar); 18-1024-EL-BGN (Willowbrook); 18-1334-EL-BGN (Hecate Energy Highland); 18-1546-EL-BGN (Nestlewood); 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud)
3	Submission of as-built specifications	Case Nos.: 17-773-EL-BGN (Hardin Solar); 18-1334-EL-BGN (Hecate Energy Highland); 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud)
4	Separate preconstruction conferences may be held; overview of information to be provided to Staff before each conference	Case Nos.: 19-1823-EL-BGN (Big Plain); 20-1380-EL-BGN (Ross County); 20-1762-EL-BGN (Sycamore Creek); 20-1405 (AEUG Union Solar)
5	Final geotechnical report to be provided to Staff 30 days prior to preconstruction conference	Case Nos.: 19-1880-EL-BGN (Atlanta Farms); 20-931-EL-BGN (Fox Squirrel); 20-1762-EL-BGN (Sycamore Creek); 20-1405 (AEUG Union Solar)
6	Unanticipated discovery plan to be provided to Staff prior to preconstruction conference	New and protective condition not yet addressed by Board in other proceedings
7	Provide any changes to Staff if made after submission of final engineering design	Case Nos.: 17-773-EL-BGN (Hardin Solar); 18-1024-EL-BGN (Willowbrook); 18-1334-EL-BGN (Hecate Energy Highland); 18-1546-EL-BGN (Nestlewood); Case No. 20-972-EL-BGN (Yellowbud)

Condition	Topic	Examples of Cases with Same/Similar Approved Condition
8	Handling of karst in Project Area, if identified	Case Nos.: 20-1380-EL-BGN (Ross County)
9	Certificate to become invalid if no continuous course of construction commenced within five years of certificate issuance	Case Nos.: 17-773-EL-BGN (Hardin Solar); 18-1024-EL-BGN (Willowbrook); 18-1334-EL-BGN (Hecate Energy Highland); 18-1546-EL-BGN (Nestlewood); 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud)
10	Filing the date when construction begins and ends on docket	Case Nos.: 17-773-EL-BGN (Hardin Solar); 18-1024-EL-BGN (Willowbrook); 18-1334-EL-BGN (Hecate Energy Highland); 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud)
11	Acquisition of permits or authorizations required by federal or state laws/regulations	Case Nos.: 17-773-EL-BGN (Hardin Solar); 18-1024-EL-BGN (Willowbrook); 18-1334-EL-BGN (Hecate Energy Highland); Case No. 20-972-EL-BGN (Yellowbud)
12	Application of R.C. 4906.13 to Project	Case Nos.: Case No. 20-972-EL-BGN (Yellowbud); 19-1823-EL-BGN (Big Plain); 20-1380 (Ross County); 20-1405 (AEUG Union Solar)
13	Facility to not be operated more than certificated MW amount	Case Nos.: 18-1334-EL-BGN (Hecate Energy Highland); 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud)
14	Execution of interconnection service agreement and interconnection construction service agreement with PJM Interconnection, LLC	Case Nos.: 17-773-EL-BGN (Hardin Solar); 18-1024-EL-BGN (Willowbrook); 18-1546-EL-BGN (Nestlewood); Case No. 20-972-EL-BGN (Yellowbud)
15	Submission of fence design	Case Nos.: 20-1762-EL-BGN (Sycamore Creek); 20-1757-EL-BGN (Union Ridge); 20-1405 (AEUG Union Solar); 21-4-EL-BGN (Tymochtee)
16	Parameters of landscape and lighting plan to be submitted to Staff prior to construction	Case Nos.: 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud); 20-979-EL-BGN (Arche); 20-931-EL-BGN (Fox Squirrel); 20-1757-EL-BGN (Union Ridge); 21-4-EL-BGN (Tymochtee)
17	Handling of threatened or endangered species during construction	Case Nos.: 18-1334-EL-BGN (Hecate Energy Highland); 19-1880-EL-BGN (Atlanta Farms); Case

Condition	Topic	Examples of Cases with Same/Similar Approved Condition
		No. 20-972-EL-BGN (Yellowbud); 20-1757-EL-BGN (Union Ridge)
18	Handling of threatened or rare species or suitable habitat prior to construction	Case Nos.: 19-1823-EL-BGN (Big Plain); 20-931-EL-BGN (Fox Squirrel); 20-1380-EL-BGN (Ross County); 20-1762-EL-BGN (Sycamore Creek); 20-1757-EL-BGN (Union Ridge)
19	Incorporation of post construction stormwater management, including adherence to Ohio EPA's guidance on this topic	Case Nos.: Case No. 20-972-EL-BGN (Yellowbud); 19-1823-EL-BGN (Big Plain); 20-931-EL-BGN (Fox Squirrel); 20-1757-EL-BGN (Union Ridge); 21-4-EL-BGN (Tymochtee)
20	Environmental specialist to be on site during construction activities that may affect sensitive areas	Case Nos.: 18-1024-EL-BGN (Willowbrook); 18-1334-EL-BGN (Hecate Energy Highland); 18-1546-EL-BGN (Nestlewood); 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud)
21	Adherence to time of year restrictions to avoid impacts to certain bats	Case Nos.: 18-1024-EL-BGN (Willowbrook); 18-1334-EL-BGN (Hecate Energy Highland); 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud); 21-4-EL-BGN (Tymochtee)
22	Prevention of the establishment of noxious weeds	Case Nos.: 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud); 19-1823-EL-BGN (Big Plain); 20-931-EL-BGN (Fox Squirrel)
23	Adherence to time of year restrictions to avoid impacts to indigenous aquatic species and their habitat	Case Nos.: 20-931-EL-BGN (Fox Squirrel); 20-1762-EL-BGN (Sycamore Creek); 21-4-EL-BGN (Tymochtee)
24	Acquisition of necessary transportation permits prior to construction and creation of a final transportation management plan	Case Nos.: 17-773-EL-BGN (Hardin Solar); 18-1024-EL-BGN (Willowbrook); 18-1334-EL-BGN (Hecate Energy Highland); 18-1546-EL-BGN (Nestlewood); 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud)
25	Mitigation measures related to water wells in the Project Area	Case Nos.: Case No. 20-972-EL-BGN (Yellowbud); 20-931-EL-BGN (Fox Squirrel); 20-1757-EL-BGN (Union Ridge)
26	Emergency response plan to be provided to Staff 30 days prior to	Case Nos.: 20-1757-EL-BGN (Union Ridge)

Condition	Topic	Examples of Cases with Same/Similar Approved Condition
	the preconstruction conference	
27	Substation equipment to be located outside the inner management protection zones for the Camp Clifton Day Camp source water protection area	Unique to this proceeding
28	Solar panels must not exhibit the characteristic of toxicity through analysis with the U.S. EPA's toxicity characteristics leachate procedure	New and protective condition not yet addressed by Board in other proceedings
29	Final complaint resolution program to be provided 30 days prior to start of construction and overview of content; overview of various notifications to be provided including to affected property owners and local officials and agencies	Case Nos.: 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud); 19-1823-EL-BGN (Big Plain); 20-1380-EL-BGN (Ross County); 20-1757-EL-BGN (Union Ridge)
30	General construction activities limited to the hours of 7 a.m. to 7 p.m. or until dusk when sunset occurs after 7:00 p.m.; overview of when impact pile driving may occur	Case Nos.: 17-773-EL-BGN (Hardin Solar); 18-1024-EL-BGN (Willowbrook); 18-1334-EL-BGN (Hecate Energy Highland); 18-1546-EL-BGN (Nestlewood); 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud)
31	Overview of procedures if inverters or substation transformer have a higher sound power output than calculated	Case Nos.: 20-1380-EL-BGN (Ross County); 20-1762-EL-BGN (Sycamore Creek); 20-1405 (AEUG Union Solar)

Condition	Topic	Examples of Cases with Same/Similar Approved Condition
	in the noise model submitted in the Application	
32	Avoidance of damage to existing drain tile and process by which affected drain tile must be repaired	Case Nos.: 18-1024-EL-BGN (Willowbrook); 18-1334-EL-BGN (Hecate Energy Highland); 18-1546-EL-BGN (Nestlewood); 19-1880-EL-BGN (Atlanta Farms); Case No. 20-972-EL-BGN (Yellowbud); 20-979-EL-BGN (Arche)
33	Time within which Applicant must repair main drain tile during construction and operation/maintenance of the facility	Case Nos.: 20-1405 (AEUG Union Solar)
34	Overview of how Applicant must ensure parcels adjacent to Project Area are protected from unwanted drainage problems due to construction and operation of the Project	Case Nos.: 20-1757-EL-BGN (Union Ridge); 20-1405 (AEUG Union Solar); 21-4-EL-BGN (Tymochtee)
35	Submission of updated decommissioning plan within 30 days prior to preconstruction with a cost estimate without regard to salvage value	Case Nos.: 19-1823-EL-BGN (Big Plain); 20-979-EL-BGN (Arche); 20-931-EL-BGN (Fox Squirrel); 20-1757-EL-BGN (Union Ridge); 20-1405 (AEUG Union Solar)
36	Solar panels which are not recycled or marked for disposal to be sent to an engineered landfill	Case Nos.: 21-4-EL-BGN (Tymochtee)
37	30 days prior to preconstruction conference, Applicant to demonstrate it has implemented a setback of at least 50 feet from the fence line to public right of way; specific	Case Nos.: 20-1405 (AEUG Union Solar) (certain setbacks identified)

Condition	Topic	Examples of Cases with Same/Similar Approved Condition
	to OH-72 and Clifton Road on the eastern portion of the Project, a 300-feet setback will be implemented and specific to Clifton Road on the western portion of the Project, a 200 feet setback will be implemented	
38	Applicant to provide draft emergency response plan to be created in conjunction with local emergency response service providers	Case Nos.: 20-1757-EL-BGN (Union Ridge)
39	Applicant to provide a summary report to Staff within 60 days of the occurrence of any material damage to facility as a result of high wind events	New and protective condition not yet addressed by Board in other proceedings

EXHIBIT B

- (1) The Applicant shall install the facility, utilize equipment and construction practices, and implement mitigation measures as described in the application and as modified and/or clarified in supplemental filings, replies to data requests, and recommendations in ~~this~~the Staff Report of Investigation, as modified by this Stipulation.
- (2) The Applicant shall conduct a preconstruction conference prior to the commencement of any construction activities. Staff, the Applicant, and representatives of the primary 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 and shall file a copy of the agenda on the case docket. Prior to the conference, the Applicant shall also provide notice of the meeting to the Greene County Board of County Commissioners, the Cedarville Township Board of Trustees, the Xenia Township Board of Trustees, the Miami Township Board of Trustees, the Greene County Engineer, In Progress, LLC and the Greene Soil & Water Conservation District should representatives wish to attend the conference for informational purposes. The Applicant may conduct separate preconstruction conferences for each stage of construction.
- (3) 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.
- (4) Separate preconstruction conferences may be held for the different phases of civil construction and equipment installation. At least 30 days prior to each preconstruction conference, the Applicant shall submit to Staff, for review and acceptance, one set of detailed engineering drawings of the final project design for that phase of construction and mapping in the form of PDF, which the Applicant shall also file on the docket of this case, and geographically referenced data (such as shapefiles or KMZ files) based on final engineering drawings to confirm that the final design is in conformance with the certificate. The final design shall incorporate a minimum setback from the project's fence line of at least 250 feet from non-participating residences as of the application filing date, and a minimum setback from the project's inverter stations of at least 500 feet from non-participating residences as of the application filing date. Mapping shall include the limits of disturbance, permanent and temporary infrastructure locations, areas of vegetation removal and vegetative restoration as applicable, and specifically denote any adjustments made from the siting detailed in the application. The detailed engineering drawings of the final project design for each phase of construction shall account for geological features and include the identity of the registered professional engineer(s), structural engineer(s), or engineering firm(s), licensed to practice engineering in the state of Ohio who reviewed and approved the designs. All applicable geotechnical study results shall be included in the submission of the final project design to Staff.

- (5) At least 30 days prior to the preconstruction conference, the Applicant shall provide Staff, for review and acceptance, the final geotechnical engineering report. This shall include a summary statement addressing the geologic and soil suitability.
- (6) At least 30 days prior to the preconstruction conference, the Applicant shall provide Staff, for review and acceptance, an Unanticipated Discovery Plan. This shall include detailed plans for remediation of any oil and gas wells within the project area.
- (7) If any changes are made to the facility 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 are subject to Staff review for compliance with all conditions of the certificate, prior to construction in those areas.
- (8) Should karst features be identified during additional geotechnical exploration or during construction, the Applicant shall avoid construction in these areas when possible. If mitigation measures are used in lieu of avoidance, the Applicant's consideration of adequate mitigation measures shall include potential hydrogeological impact.
- (9) 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 unless the Board grants a waiver or extension of time.
- (10) As the information becomes known, the Applicant shall file on the public docket the date on which construction will begin, the date on which construction was completed, and the date on which the facility begins commercial operation.
- (11) 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 no less than seven days of issuance or receipt by the Applicant prior to the applicable construction activities and shall file such permits or authorizations on the public docket. The Applicant shall provide a schedule of construction activities and acquisition of corresponding permits for each activity at the preconstruction conference(s).
- (12) The Subject to the application of R.C. 4906.13(B), the certificate authority provided in this case shall not exempt the facility from any other applicable and lawful local, state, or federal rules or regulations nor be used to affect the exercise of discretion of any other local, state, or federal permitting or licensing authority with regard to areas subject to their supervision or control.
- (13) The facility shall be operated in such a way as to assure that no more than 175 MW would be injected into the Bulk Power System at any time.
- (14) The Applicant shall not commence any construction of the facility until it has executed an Interconnection Service Agreement and Interconnection Construction Service Agreement with PJM Interconnection, which includes construction, operation, and maintenance of system upgrades necessary to integrate the proposed generating facility into the regional

transmission system reliably and safely. The Applicant shall docket in the case record a letter stating that the Agreement has been signed or a copy of the executed Interconnection Service Agreement and Interconnection Construction Service Agreement.

- (15) Prior to commencement of construction, the Applicant shall submit to Staff its design for approval a solar panel the perimeter fence type that is for confirmation that the design complies with this condition. Project perimeter fencing shall be designed to be both small-wildlife permeable and aesthetically fitting for a rural location, taking into account applicable codes and NERC requirements. To the extent modifications can be made to a code compliant fence, the Applicant shall install a fence that: has the lowest height possible; has frequent openings in the bottom rows in the fence not more than 500 feet apart and that must be at least nine inches wide and seven inches high to allow the passage of mammalian predators and other wildlife species. This condition shall not apply to substation fencing.
- (16) Prior to commencement of any construction, the Applicant shall prepare a landscape and lighting plan in consultation with a landscape architect licensed by the Ohio Landscape Architects Board that addresses the aesthetic and lighting impacts of the facility with an emphasis on any locations where an adjacent non-participating parcel contains a residence with a direct line of sight to the project area at any time of the year. The plan shall also address potential aesthetic impacts to nearby communities, the travelling public, and recreationalists by incorporating appropriate landscaping measures such as shrub plantings or enhanced pollinator plantings. The plan shall include measures such as fencing, vegetative screening, or good neighbor agreements. Unless alternative mitigation is agreed upon with the owner of any such adjacent, non-participating parcel containing a residence with a direct line of sight to the fence of the facility, the plan shall provide for the planting of vegetative screening designed by the landscape architect to enhance the view from the residence and be in harmony with the existing vegetation and viewshed in the area. Subject to any project area reductions, vegetative screening shall at a minimum consist of screening in the locations shown on the attached screening plan using the identified levels of screening from the Landscaping Plan attached to the Applicant's application in this proceeding. The Applicant shall maintain vegetative screening for the life of the facility and the Applicant shall substitute and/or replace any failed plantings so that, after five years, at least 90 percent of the vegetation has survived. The Applicant shall maintain all fencing along the perimeter of the project in good repair for the term of the project and shall promptly repair any damage as needed. Lights shall be motion-activated and designed to narrowly focus light inward toward the facility, such as being downward-facing and/or fitted with side shields. The Applicant shall provide the plan to Staff and file it on the public docket for review and confirmation that it complies with this condition.
- (17) The Applicant shall contact Staff, the ODNR, and/or the USFWS as applicable within 24 hours if state and/or federal federally listed threatened or endangered species are encountered within the construction limits of disturbance during site construction activities. Construction activities that could adversely impact the identified plants or animals shall be immediately halted until an appropriate course of action has been agreed upon by the Applicant, Staff and the appropriate agencies. The Applicant shall also annually report all

~~wildlife mortality, injury, or entrapment that is discovered at the facility to OPSB Staff and ODNR DOW.~~

- (18) If the Applicant encounters any new listed plant or animal species or suitable habitat of these species prior to construction, the Applicant shall ~~include the location~~identify avoidance areas or alternatively explain appropriate mitigation measures for these species to accommodate construction activities. This information will be included in the final engineering drawings and associated mapping, as required in condition 4. The Applicant shall avoid impacts to these species and explain how impacts would be avoided during construction. Coordination with the ODNR and USFWS may also allow a different course of action.
- (19) The Applicant shall ~~construct the facility in a manner that incorporates~~ incorporate post construction stormwater management under OHC00005 (Part III.G.2.e, pp. 19-27) ~~in accordance with~~as applicable and will also incorporate applicable guidance from the Ohio Environmental Protection Agency's Guidance on Post-Construction Storm Water Controls for Solar Panel Arrays- (dated October 2019). Following the completion of final project engineering design, the Applicant shall perform pre- and post-construction stormwater calculations to determine if post-construction best management practices are required, based on requirements contained in Ohio EPA's Construction General Permit. The calculations along with a copy of any stormwater submittals made to the Ohio EPA shall be submitted to the Greene County Department of Building Regulation and the Greene County Soil & Water Conservation District. If post construction storm water best management practices are required, the Applicant will submit construction drawings detailing any stormwater control measures to the Greene County Department of Building Regulation and the Greene County Soil & Water Conservation District, as applicable, no less than seven days prior to the applicable construction activities.
- (20) The Applicant shall have ~~a Staff approved~~an environmental specialist on site during construction activities that may affect sensitive areas, to be mutually agreed upon by the Applicant and Staff. Sensitive areas which would be impacted during constructions shall be identified on a map provided to Staff, and may include, but are not limited to, wetlands ~~and~~ streams, and locations of threatened or endangered species 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. The environmental specialist mutually agreed upon by Staff and the Applicant shall be authorized to report any issues simultaneously to Staff and the Applicant. To allow time for the Applicant and Staff to respond to any reported issues, the environmental specialist shall have authority to stop construction to assure that activities in or near the impacted sensitive area(s) for up to 48 hours if the construction activities are creating unforeseen environmental impacts do not progress and recommend procedures to resolve the impact. A map shall be provided to Staff showing sensitive areas which would be impacted during construction with information on when the environmental specialist would be present in the sensitive areas identified on the map.
- (21) 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 potential impacts to

Indiana bats, northern long-eared bats, little brown bat, and ~~the~~ tricolored ~~bat~~bats unless coordination with the Ohio Department of Natural Resources (ODNR) and the U.S. Fish and Wildlife Service (USFWS) allows a different course of action. If coordination with these agencies allows clearing between April 1 and September 30, the Applicant shall docket proof of completed coordination on the case docket prior to clearing trees.

(22) The Applicant shall take steps to prevent establishment and/or further propagation of noxious weeds identified in Ohio Adm.Code Chapter 901:5-37 during implementation of any pollinator-friendly plantings, as well as during construction, operation, and decommissioning. This would be achieved through appropriate seed selection, and annual vegetative surveys consistent with the vegetation management plan included in the application. If noxious weeds are found to be present, the Applicant shall remove and treat them with herbicide as necessary, and shall follow all applicable state laws regarding noxious weeds. The Applicant shall also remove and treat with herbicide as necessary any noxious weeds upon notice from a board of township trustees that noxious weeds exist on Project property. Prior to commencement of construction, the Applicant shall consult with the Greene Soil & Water Conservation District regarding seed mixes for the Project and shall provide the tags on such seed mixes to the Greene Soil & Water Conservation District.

(22)(23) The Applicant shall conduct no in-water work in perennial streams from April 15 through June 30 to reduce potential impacts to indigenous aquatic species and their habitat, unless coordination efforts with the ODNR allows a different course of action. If coordination with ODNR allows in-water work in perennial streams between April 15 and June 30, the Applicant shall file proof of such coordination on the docket prior to conducting such work.

(23)(24) The Applicant shall obtain transportation permits prior to the commencement of construction activities that require them. The Applicant shall coordinate with the appropriate regulatory authority regarding any temporary road closures, road use agreements, driveway permits, 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 Greene County Engineer, the ODOT, local law enforcement, and health and safety officials. The Applicant shall detail this coordination as part of a final transportation management plan submitted to Staff prior to the preconstruction conference for review and confirmation by Staff that it complies with this condition and then file the plan on the public docket. This final transportation management plan would include any county required road use maintenance agreements. The final transportation management plan shall address the methodology for monitoring all local county and township roads used for construction traffic during construction to ensure these roads remain safe for local traffic. Any damaged local public roads, culverts and bridges would be repaired promptly to their previous or better condition by the Applicant under the guidance of the appropriate regulatory authority. Any temporary improvements would be removed unless the appropriate regulatory authority request that they remain in place.

(24)(25) At least 30 days prior to the preconstruction conference, the Applicant shall provide the status (i.e., avoidance, mitigation measures, or capping) of each water well within the

project area. The Applicant shall indicate to Staff whether the nearest solar components to each uncapped well within the project area meets or exceeds any applicable minimum isolation distances outlined in Ohio Adm.Code 3701-28-7. The Applicant shall relocate the solar equipment at least 50 feet from each active water well. The Applicant may demonstrate that the well is for nonpotable use and relocate solar equipment at least 10 feet from that nonpotable use water well, or seal and abandon the water well.

~~(25)~~(26) At least 30 days prior to the preconstruction conference, that the Applicant shall submit its emergency response plan to Staff for review and acceptance. That plan shall include a provision(s) to keep the Village of Yellow Springs (e.g., city administrator or water department) and the Camp Clifton Day Camp informed of the status of any spills, significant panel damage, and repair/clean-up/decommission schedule.

~~(26)~~(27) At least 30 days prior to the preconstruction conference, the Applicant shall demonstrate that ~~its solar and the~~ substation equipment are outside the inner management protection zone(s) for the Camp Clifton Day Camp source water protection area.

~~(27)~~(28) At least 30 days prior to the preconstruction conference, the Applicant shall demonstrate that its solar panels to be installed at the solar facility, including over the outer management zones of the Village of Yellow Springs and Camp Clifton Day Camp, do not exhibit the characteristic of toxicity through analysis with the US EPA's toxicity characteristics leachate procedure (TCLP) test.

~~(28)~~(29) At least 30 days prior to the start of construction, the Applicant shall file a copy of the final complaint resolution program for construction and operation of the project on the public docket. At least seven days prior to the start of construction and at least seven days prior to the start of facility operations, the Applicant shall notify via mail affected property owners and tenants who were provided notice of the public informational meeting; attendees of the public informational meeting who requested updates regarding the project; any other person who requests updates regarding the project; all residents, airports, schools, and libraries located within one mile of the project area; parties to this case; and county commissioners, township trustees, and emergency responders. These notices shall provide information about the project, including contact information and a copy of the complaint resolution program. The start of construction notice shall include ~~written confirmation that the Applicant has complied with all preconstruction-related conditions of the certificate, as well as~~ a timeline for construction and restoration activities. The start of facility operations notice shall include ~~written confirmation that the Applicant has complied with all construction-related conditions of the certificate, as well as~~ a timeline for the start of operations. The Applicant shall file a copy of these notices on the public docket, including written confirmation that the Applicant has complied with all preconstruction-related conditions of the certificate. During the construction and operation of the facility, the Applicant shall submit to Staff a complaint summary report by the fifteenth day of April, July, October, and January of each year through the first five years of operation. The report shall include a list of all complaints received through the Applicant's complaint resolution program, a description of the actions taken toward the resolution of each complaint, and a status update if the complaint has yet to be resolved. The Applicant shall file a copy of these complaint summaries on the public docket.

~~(29)~~(30) 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. and 6:00 p.m. Impact pile driving may occur between 7:00 a.m. and 9:00 a.m., and after 6:00 p.m. or until dusk when sunset occurs after 6:00 p.m., if the noise impact at non-participating receptors is not greater than daytime ambient Leq plus 10 dBA. If impact pile driving is required between 7:00 a.m. and 9:00 a.m., and after 6:00 p.m. or until dusk when sunset occurs after 6:00 p.m., the Applicant shall install a noise monitor in a representative location to catalog that this threshold is not being exceeded. Hoe ram operations, if required, shall be limited to the hours between 10:00 a.m. and 4:00 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(B)(2) of upcoming construction activities including potential for nighttime construction.

~~(30)~~(31) If the inverters or substation transformer chosen for the project have a higher sound power output than the models used in the noise model, the Applicant shall submit, 30 days prior to construction, the results from an updated noise model for the project using the expected sound power output from the models chosen for the project, to show that sound levels will not exceed the average daytime ambient level in dBA for the nearest sound monitoring location for the Project Noise Evaluation attached to the application as Exhibit K plus five dBA at any non-participating sensitive receptor and will be submitted at least 30 days prior to construction. ~~If noise data is not available from the inverter or transformer manufacturer, an operational noise test may be performed to comply with this condition. The test must be performed on a sunny day between 10 a.m. and 2 p.m. in the months of May August, at a distance equal to the minimum distance from an inverter to a non-participating residence. If the test shows the operational noise level is greater than project area ambient Leq level plus five dBA additional noise mitigation will be required. This condition is complied with if the test shows the operational noise level is equal or less than project area ambient Leq level plus five dBA. The Applicant shall file a report on the public docket that shows either 1) for the chosen inverter and substation transformer that sound levels will not exceed the daytime ambient level plus five dBA at any non-participating sensitive receptor or 2) results of the operational noise test showing that sound levels will not exceed the daytime ambient level plus five dBA at any non-participating sensitive receptor.~~ nonparticipating sensitive receptor. If transformer manufacturer data is not available, the model will be updated with sound emission data following the NEMA TR1 standard. If inverter manufacturer data is not available, a similar inverter model will be used to update the sound propagation model prior to construction. Once constructed, sound level measurements will be made in close proximity to the inverter to determine the sound power level of the installed inverter. If the sound power level of the installed inverter is 2 dBA or more above the sound power level used in the updated preconstruction model, then the sound propagation model will be updated to ensure project-wide compliance with the applicable sound level limit. If the sound power level is determined to be less than 2 dBA above the sound power level used in the updated preconstruction model, then the project will be deemed in-compliance. If the equipment chosen for the project are at the same (or lower) sound power outlet as the models used in the noise model, no further action is needed for compliance of this condition.

(32) The Applicant shall avoid, where possible, or minimize to the extent practicable, any damage to functioning field tile drainage systems and compaction to soils resulting from the construction, operation, and/or maintenance of the facility in agricultural areas. For the purposes of the conditions in this Stipulation, “field tile drainage systems” or “drainage system” includes both mains and laterals within the facility footprint. Damaged field tile systems shall be promptly repaired or rerouted to at least original conditions or modern equivalent at the Applicant’s expense to ensure proper drainage. However, if the affected landowner agrees to not having the damaged field tile system repaired, they may do so only (i) if the field tile systems of adjacent landowners remain unaffected by the non-repair, non-replacement, or non-rerouting of the landowner’s field tile system and (ii) the damaged field tile does not route directly to or from an adjacent parcel. In accordance with the Applicant’s complaint resolution plan, the Applicant shall consult with any landowner that submits a complaint to the Applicant related to drainage issues on the landowner’s property.

~~(31)~~(33) If a main drain tile is impacted due to the construction of the facility, the damaged field tile drainage system shall be promptly repaired and/or rerouted no later than 10 days after such damage is discovered, pending weather and contractor availability, and be returned to at least original condition or their modern equivalent. If a main drain tile is found to be impacted during the operation, and/or maintenance of the facility, the damaged field tile drainage systems shall be promptly repaired and/or rerouted no later than 45 days after such damage is discovered, pending weather and contractor availability, and be returned to at least original conditions or their modern equivalent at the Applicant’s expense. Any tile installation or repairs shall be performed in accordance with the applicable provision of Standard Practice for Subsurface Installation of Corrugated Polyethylene Pipe for Agricultural Drainage of Water Table Control, ASTM F499-02 (2008), to the extent practicable.

~~(32)~~(34) The Applicant shall ensure that ~~nearby~~ parcels adjacent to the Project area are protected from unwanted drainage problems due to construction and operation of the project. The Applicant shall ensure this by ~~implementing one of the following:~~ _____

~~—a)—~~1) conducting a search of the Project as necessary to locate drain tiles between the Project area properties and adjacent parcels; (2) consulting with owners of all parcels adjacent to the properties making up the Project as to locations of drain tiles on those parcels, (3) consulting with the Greene Soil & Water Conservation District (the “District”) and the Greene County Engineer to determine the location of any tile located in a county maintenance ditch; and (4) subsequently documenting benchmark conditions of surface and subsurface drainage systems prior to construction, including the location of laterals, mains, grassed waterways, and county maintenance ~~repair~~ ditches. ~~The Applicant will make efforts to conduct a perimeter dig utilizing a tile search trench and consult with owners of all parcels adjacent to the property, the county soil and water conservation district, and the county to request drainage system information over those parcels. The Applicant shall consult with the county engineer for tile located in a county maintenance/repair ditch.~~

~~—b)—~~locate and replace all ditches. During the time Applicant is conducting any field searches for drain tile or conducting construction work that could affect field tile drainage

systems within the Project Area and for up to twelve months after completing construction, the Applicant will allow a District inspector to help determine, inspect, and, as necessary, require the Applicant's contractor to cause repairs to be made to necessary project field tile drainage systems –

~~—c) agree to compensate parcels owners affected by damage to functioning field tile drainage systems and soils resulting from the construction, operation, and/or maintenance of the facility in agricultural areas for damage to crops or other agricultural activities, that have been damaged.~~

~~(33)~~(35) At least 30 days prior to the preconstruction conference, the Applicant shall submit an updated decommissioning plan and total decommissioning cost estimate 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 after the Project permanently ceases commercial operations; (c) a provision to monitor the site for at least one additional year to ensure successful revegetation and rehabilitation subject to landowner permission to access the site; (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; (h) and a provision stating that the bond shall be recalculated every five years by an engineer retained by the Applicant.

~~(34) Prior to the commencement of construction, the Applicant shall finalize a MOU with OHPO to avoid cultural resources with potential adverse effects due to the project and to outline procedures to be followed if previously unidentified sites are discovered during construction. The Applicant shall submit the MOU to Staff and file the MOU on the docket of this case. The Applicant shall not construct within the 15 percent of the archaeological survey area not yet surveyed for archaeological resources.~~

~~(35)~~(36) At the time of solar panel end of life disposal, retired panels that will not be recycled and that are marked for disposal shall be sent to an engineered landfill with various barriers and methods designed to prevent leaching of materials into soils and groundwater.

~~(36) Prior to commencement of construction, the Applicant shall submit to Staff for approval a solar panel perimeter fence type that is both small wildlife permeable and aesthetically fitting for a rural location. This condition shall not apply to substation fencing.~~

~~(37)~~ At least 30 days prior to the preconstruction conference, the Applicant shall demonstrate that it has implemented a setback of at least 3050 feet from the solar facility fence line to the public roads edge line. Alternatively, the Applicant may demonstrate that its solar fence is outside the clear zone width of the nearest public road; this demonstration should include the roads' design speed, design average daily traffic, applicable slopes, and accident history of right of way. Specific to OH-72 and Clifton Road on the eastern portion of the Project, the Applicant shall implement a setback of 300 feet from the edge of the public road right-of-

way. Specific to Clifton Road on the western portion of the Project, the Applicant shall implement a setback of 200 feet from the edge of the public road right-of-way.

- (38) The Applicant shall provide an emergency response plan to Staff prior to construction of the Project that includes a provision to provide annual training to the Xenia Township, Cedarville Township, Miami Township and Greene County emergency response services in addition to providing those agencies with emergency contacts for the Project during construction and operation. The Applicant shall develop the plan in coordination with the emergency response service agencies for the townships. Such annual training shall include training on addressing personnel injury incidents and fires. The annual training shall commence prior to the start of operation and continue until the Project is decommissioned. Emergency contact information shall be posted at the primary entrance to the Project.
- (37)(39) The Applicant shall provide a summary report to Staff within 60 days of the occurrence of any material damage to the Facility resulting from high wind events and shall file a copy of the report on the case docket. The report shall describe the Applicant's plan for repairing the damage and the timeline for the repairs. In the event any portion of the Facility is rendered inoperable by the damage and the Applicant elects to not repair the damage, that portion of the Facility shall be decommissioned following the Applicant's decommissioning plan.

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Summary: Brief Initial Post-Hearing Brief of Kingwood Solar I LLC electronically
filed by Mr. Michael J. Settineri on behalf of Kingwood Solar I LLC