

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)	

REPLY BRIEF OF KINGWOOD SOLAR I LLC

TABLE OF CONTENTS

	Page
I. Introduction.....	1
II. Summary of Arguments and Kingwood’s Reply.....	2
III. The Opposition Overlooks Important Facts that Support the Project and Misrepresent Other Facts	7
IV. CGA’s Arguments Regarding Rule Compliance have no Bearing on Whether Kingwood has Satisfied the R.C. 4906.10(A) Criteria	8
V. Kingwood has Shown that the Project Meets the R.C. 4906.10(A)(6) Criterion	10
A. The Siting of a Major Utility Facility should not be a Popularity Contest	10
1. The Board Should Return to its Traditional Standard of Evaluating R.C. 4906.10(A)(6) and Not Consider Local Public Opinion	11
2. Even if the Board Considers Local Opinion (Which it Should Not), the Board Should Only Consider Local Opinion Grounded in Fact.....	13
3. Local Public Opinion in this Proceeding is Unsubstantiated.....	16
4. The Record Does Not Support a Finding of “Overwhelming Opposition”	19
B. Tourism will not be Impacted Because the Community’s Cultural and Historic Resources are Adequately Protected.....	24
C. The Project Complies with Greene County’s “Perspectives 2020” Future Land Use Plan and Farmland Preservation Plan.....	30
D. The Siting of the Project on Agricultural Land is Prudent and Appropriate	32
E. The Project will have Significant and Positive Local and Statewide Economic Impacts.....	35
F. Property Values will not be Impacted.....	39
1. Recent Sales in the Project Area Confirm the CohnReznick Report.....	39
2. The Board Should not Rely on Ms. Clay’s Testimony	40
3. Ms. Clay’s “Analysis” on Vegetative Buffers is Misleading	41
4. CGA’s Claims of Bias are False	44

5.	Greene County’s Criticisms of the CohnReznick Report Fall Short	45
6.	Cedarville Township’s Concerns About Housing Density is Adequately Addressed	49
7.	The Board Has Relied on Mr. Lines’s Analysis Before and Should do so Here	50
G.	The Project’s Setbacks are Protective	51
H.	Visual Impacts will be Localized and Offset with Screening.....	54
1.	The Project is Not Visible from Tourist Attractions.....	54
2.	CGA’s Argument Regarding the Project’s View from Non-Participating Homes is Misleading	55
3.	Kingwood’s Simulations were Appropriately Conducted	57
4.	The Board has Approved Similarly Shaped Projects.....	59
5.	The Screening Proposed by Kingwood Adequately Protects Non-Participating Residences’ Views.....	59
I.	The Project is Properly Designed for Severe Weather Events	62
J.	CGA’s Claims that Kingwood is an Inexperienced Operator have no Merit	63
VI.	Adequate Information has been Presented Regarding 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)).....	64
A.	The Project will not have any Ecological Impacts.....	64
B.	The Project Incorporates Maximum Feasible Water Conservation Practices in Compliance with R.C. 4906.10(A)(8)	67
C.	Operational Noise will not be an Issue and any Complaints can be Easily Addressed.....	69
1.	The Board should not Rely Upon Mr. Rand’s Hardin Solar Project Measurements	69
2.	Any Operational Noise Issue can be Adequately Mitigated Post-Construction.....	71
3.	The Board has Accepted the Leq + 5 Standard in Numerous Proceedings	72

4.	Mr. Rand has Little Experience Evaluating Noise From Solar Projects.....	75
D.	The Project will not Create Runoff or Drainage Problems in the Area	76
E.	The Project will not Adversely Impact Groundwater, the Nearby Streams or the Little Miami River	78
VII.	Conclusion	80
	CERTIFICATE OF SERVICE	82

I. Introduction

Through this proceeding, the Ohio Power Siting Board (“Board”) has **a pivotal chance** to course correct and **reaffirm its role** in the power siting process. Since June 24, 2021, the Board has gone down a **dangerous path by placing an outsized emphasis on local opinion**, including local governmental opinion, when analyzing if solar generation project meets the public interest, convenience, and necessity standard of R.C. 4906.10(A)(6) (one of eight criteria identified in R.C. 4906.10(A) a proposed project must satisfy). But, the Board’s actions **are contrary** to the **legislative mandate** of R.C. Chapter 4906, which establishes a **statewide permitting scheme** for major utility facilities, including solar generation projects of fifty megawatts (“MW”) or more. R.C. 4906.01(B)(1)(a); R.C. 4906.04. Specifically, the Ohio Legislature has charged the Board with determining if a proposed project is best for the entire state’s citizens and economy; not whether a proposed project is supported by local public opinions.

Kingwood Solar I LLC (“Kingwood” or “Applicant”) has demonstrated its proposed Kingwood Solar Project (“Project”) will create minimal environmental and ecological impacts to the Project Area. Additionally, the Project is in the public interest because, if constructed, it will provide various benefits, including grid reliability in the event of severe weather that can lead to system outages, especially in the wake of **significant reductions** in coal-fired utility-scale generating capacity, and important local and statewide benefits (e.g. more than **\$1.5 million** in annual tax revenue locally and **\$6.75 million** annually in new economic output in Ohio).

While Kingwood recognizes that local government officials and a small group of vocal residents do not want the Project in their community, **such “not in my backyard” backlash is common when any type of local development is proposed**. However, the statutory scheme under which the Board operates does not allow the Board to weigh the opinions of a vocal minority

of residents and local governmental bodies. Additionally, while Senate Bill 52 gave counties a voice (and only counties), statewide decision-making regarding utility-scale energy generation remains with the Board. Regardless, this Project is grandfathered under Senate Bill 52 and should be approved. Importantly, CGA and the local governmental officials have just general opinions about the effect of the Project on various aspects of the statutory test. Most of those opinions have no substance to them, are unsupported by any evidence, and are just personal negative viewpoints. The few experts that they did present failed to refute the extensive studies, testimony, and experts that testified in favor of the Project's minimal impact.

The Board's current path would endanger the development of any solar project and has created severe regulatory uncertainty. The Board should return to its prior precedent and intent, acknowledge its statutory duty to weigh the public interests and not local opinions, adhere to the express language of R.C. 4906.10, and approve this Project like others before it.

II. Summary of Arguments and Kingwood's Reply

The Board should not be swayed by the arguments raised by the intervenors in this proceeding. Basing their arguments on the opinions of a minority of Greene County residents and ignoring the various economic benefits that will be created by the Project, Citizens for Green Acres ("CGA"), Board Staff, the Board of Commissioners of Greene County ("Greene County"), the Board of Trustees of Cedarville Township ("Cedarville Township"), the Board of Trustees of Miami Township ("Miami Township"), the Board of Trustees of Xenia Township ("Xenia Township"), and In Progress, LLC ("In Progress") all argue that the Project does not comply with R.C. 4906.10(A)(6). Additionally, CGA makes arguments to imply Kingwood has not satisfied R.C. 4906.10(A)(2) (nature of probable environmental impact) and 4906.10(A)(3) (facility represents minimum adverse impact). Kingwood, however, has demonstrated that the Project complies with R.C. 4906.10(A)(6) in its initial brief filed on June 13, 2022, and addresses

arguments made by opposing parties below. Further, in addition to evidence in the record demonstrating that Kingwood will minimize the Project’s impacts, Staff, in its Staff Report of Investigation (“Staff Report”), itself concluded that the impacts represented by the Project would be minimal and could be adequately mitigated by Kingwood.

Kingwood’s responses to the intervenors’ arguments are summarized below – and demonstrates why a certificate should be issued.

Party	Argument	Kingwood’s Response
CGA, Greene County, Cedarville Township, Miami Township ¹ , Xenia Township, In Progress LLC ² , and Board Staff,	The Project will not serve the public interest because of public opposition, including political opposition.	Public opinion is not part of the statutory criteria and even if considered, the local opinions are unfounded, contrary to the evidence and as to CGA, represent opinions by a vocal minority of Greene County residents who have influenced the political process. (Section V(A)).
CGA and Greene County	The Project will not serve the public interest, convenience, and necessity with respect to tourism and cultural and historical resources.	The Project will not be visible from any of local tourist attractions, including the John Bryan State Park, Clifton Gorge Nature Preserve, the Little Miami River, and the Glen Helen Nature Preserve. Kingwood has also received concurrence from the Ohio State Historic Preservation Office (“SHPO”) confirming minimal impacts on cultural

¹ In addition to noting that the Project is opposed by local residents, Miami Township lists various impacts to natural resources, including soil compaction/erosion, impacts to vegetation, propagation of harmful/noxious weeds, surface water drainage/runoff, and impact to agricultural land. These impacts are not substantively discussed. Kingwood has adequately addressed how the Project’s impacts on the Project Area will be appropriately mitigated. Each of these issues are further discussed in this reply brief in response to more specific arguments made by opposing parties, and consequently, not specifically attributed to the township.

² In Progress urges the Board to consider the arguments made by intervenors with regard to setbacks, weather events, property values, economic impact, visual impact, water conservation, plant and wildlife ecosystems, etc. Each of these issues are further discussed in this reply brief in response to more specific arguments made by opposing parties, and consequently, not specifically attributed to In Progress LLC.

Party	Argument	Kingwood's Response
		and historic resources. (Section V(B)).
CGA and Greene County	The Project is not in the public interest because it conflicts with local land use planning codes.	The Project does comply with local land use plans to preserve farmland, complies with road setbacks for the major roads near the various parks and preserves and pursuant to R.C. 4906.13, local land use planning codes are not applicable to the Project. (Section V(C)).
CGA	The Project does not serve the public interest because of the loss of farmland.	The Project will impact only one percent of the agricultural cropland in Greene County, no other utility scale project is proposed in this area currently, and the land can be returned to agricultural use upon decommissioning – preserving farmland. (Section V(C)).
CGA and Greene County	The Project does not serve the public interest because it will not produce economic benefits and cause a net loss of “direct jobs.”	The record shows a positive creation of jobs and \$6.75 million annually in new economic output and over \$1.1 million annually to local schools. (Section V(E))
CGA and Greene County ³	The Project is not in the public interest because of reduced property values.	Kingwood presented a comparative analysis refuting this claim. Additionally, despite the community knowing about the Project as early as 2017, home values in the area have not been impacted. (Section V(F)).

³ Cedarville and Xenia Townships list property values as a concern but do not substantively discuss them in their briefs.

Party	Argument	Kingwood's Response
CGA	The Project does not have adequate setbacks pursuant to R.C. 4906.10(A)(3). ⁴	The Project's setbacks exceed other approved projects and there is a 300 foot setback from major roads near parks and nature preserves. (Section V(G)).
CGA and Greene County	Kingwood has not mitigated the Project's adverse visual impacts.	The Joint Stipulation locks in a screening plan with over 4,000 feet of additional screening, agricultural fencing will be used and the Project will not be visible from any nearby park or nature preserve. (Section V(H)).
CGA	The Project is not in the public interest because it is being sited in an area prone to tornados.	Project equipment will be designed to withstand high winds, trackers that hold panels have been used throughout the world, and Greene County does not experience a higher risk of tornadoes compared to other areas of the country where panels are installed. (Section V(I)).
CGA	The Project is not in the public interest because Kingwood is an inexperienced project owner.	Kingwood's owner has significant experience developing projects and the Board has previously granted a certificate for the Nestlewood solar project, which is owned by the developer of this Project, and is in the construction stage. (Section V(J)).
CGA	The Board cannot issue a certificate for the Project	The record contains significant evidence that the Project will

⁴ In its initial brief, Cedarville Township lists various reasons why it believes the Project will not satisfy R.C. 4906.10(A)(3), including proximity to scenic and historic areas; the Project being out of character for the agricultural community; the area's housing density in comparison to the areas around other Solar projects located in southwest Ohio; damage to field tiles as a result of construction and operations of the Project; setbacks; economic benefits from the Project; and the risk of violent weather. These reasons are not substantively discussed. It also adopts the arguments made in the post-hearing briefs filed by CGA, Miami Township, Xenia Township, and all other intervenors. Each of the issues identified by the township are amply discussed in this reply brief in response to arguments made by CGA and consequently, the township's arguments may not be separately addressed.

Party	Argument	Kingwood's Response
	without receiving information about the Project's potential impacts on wildlife and plants.	not have an impact on wildlife and plants – the vast bulk of the Project will be built in existing disturbed agricultural fields. (Section VI(A)).
CGA	The Project does not represent the minimum adverse environmental impact because the evidentiary record does not provide water conservation measures.	A <i>de minimis</i> amount of water will be used by the Project to clean panels. (Section VI(B)).
CGA	The Project's "noise will make life miserable on neighboring properties" and not meet R.C. 4906.10(A)(3) and R.C. 4906.10(A)(6).	Kingwood has proposed inverters and setbacks similar to and/or greater than other Board-approved projects. CGA's own witness agreed that the post-construction mitigation measures proposed by Kingwood in the unlikely event of any noise issue are adequate. (Section VI(C)).
CGA	The Board cannot issue a certificate for the Project without receiving information about the Project's potential impacts and associated mitigation to prevent flooding.	Expert testimony established that stormwater runoff will be less during the Project life than if the fields were actively farmed. Three separate Joint Stipulation conditions also protect downstream and upstream area drainage through main drain tiles. (Section VI(D)).
CGA	The Board cannot issue a certificate for the Project without receiving information concerning the Project's pollution impacts and associated mitigation.	The record expert testimony shows that the Project will not have any impacts to delineated streams and wetlands in the Project Area. (Section VI(E)).

III. The Opposition Overlooks Important Facts that Support the Project and Misrepresent Other Facts

CGA and other intervenors overlook important facts already established in the record. With regard to certain issues, intervenors present a false narrative. While Kingwood has extensively responded to the arguments presented by all intervenors below, Kingwood presents certain facts below to highlight the minimal impacts presented by the Project and to correct the false narrative.

Allegation	Party	Record
Project is visible from recreational/tourist areas.	CGA and Cedarville Township	Project is not visible from tourist areas. (Tr. Vol. II at 270; Kingwood Ex. 1, Appx Q at 8-10.)
Solar projects are noisy.	CGA	Noise from the Project is negligible and can be mitigated adequately through post-construction monitoring. (Kingwood Ex. 11 at 3; Kingwood Ex. 102 at 2.)
Cumulative effect of solar project development will reduce available farmland.	CGA	The Project is the only utility-scale project proposed for Greene County. (Kingwood Ex. 68.)
The Project's setback from a public road is only 25 feet.	CGA	The universal Project fence line setback from the public roads edge has been increased from 30 feet to 50 feet. (Kingwood Ex. 7 at 17; Jt. Ex. 1 at 11.)
The Project could be constructed as near as 25 feet to neighbors' yards and land.	CGA	Kingwood has committed to at least 250 feet between non-participating residences and the Project's fence line and 500 feet between non-participating residences and inverters. (Jt. Ex. 1 at 4.) Additionally, there will be an additional setback distance of at least a minimum of 20 feet between the solar panels and the fence line. (Tr. Vol. I at 76.)
145 homes within 1,500 feet of the Project will have view of the Project.	CGA	Measuring from the solar panels (not Project fence line), the visibility of these panels from distances greater than 1,000 feet will generally result in

Allegation	Party	Record
		limited visual impacts and most non-participating viewers surrounding the Project would be approximately this far from viewed arrays. (Kingwood Ex. 1, Appx. Q at 31.)
Project does not comply with local land use plans.	CGA and Greene County	Pursuant to R.C. 4906.13, local land use planning codes are not applicable to the Project and CGA admits that these are not applicable to this Project. Regardless, the Project substantially complies with the amendment to the Greene County “Perspectives 2020: A Future Land Use Plan for Greene County”. (Kingwood Ex. 7 at 17-18.)
The Project will permanently destroy prime farmland.	CGA	Kingwood has committed to fully decommissioning the Project and returning the land to agriculture after decommissioning is complete. (Kingwood Ex. 1 at 34-38; Kingwood Ex. 6 at 17-18; Kingwood Ex. 19 at 5-7.)
Local opposition is unilaterally against the Project.	All parties	A passionate, organized opposition group has dominated the conversation, but county-wide, more people support the Project than oppose it. (Kingwood Ex. 104 at 5; Citizens Ex. 16 at 10.)

IV. CGA’s Arguments Regarding Rule Compliance have no Bearing on Whether Kingwood has Satisfied the R.C. 4906.10(A) Criteria

CGA’s brief is peppered with claims that Kingwood’s application did not comply with the Board’s rules. (CGA Br. at 2-3, 20-21, 23, 39-40.) Specifically, CGA claims Kingwood has not complied with:

- Ohio Adm.Code 4906-4-06(E)(4) (alleging inadequate economic analysis);
- Ohio Adm.Code 4906-4-08(B)(1)(c) (alleging inadequate literature search for species);
- Ohio Adm.Code 4906-4-08(D)(4)(e) (alleging inadequate photographic simulations or pictorial sketches); and

- Ohio Adm.Code 4906-4-08(D)(4)(f) (alleging inadequate screening proposal).

Those claims are misplaced for several reasons. First, the Board's decision will not be based on whether the application was compliant with the Board's rules but rather whether the statutory criteria under R.C. 4906.10 is satisfied. Whether Kingwood's application complied with the Board's rules for application contents is irrelevant to the Board's determination on whether to issue a certificate. The Board's rules for applications are in place to help the Board determine if the application is complete and whether the applicant has presented enough information to proceed to the fact-gathering and investigation phase of the process. (*See e.g.* Staff Ex. 1 at 2.) That occurred, an investigation took place, and a full record has been prepared for the Board's consideration.

Second, any claim by CGA that Kingwood's application is not complete has been waived. Ohio Adm. Code 4906-3-06(A) specifically states that within 60 days of receipt of an application, an application is to be reviewed for completeness and whether it complies with Ohio Adm.Code Chapters 4906-1 to 4906-7. Ohio Adm.Code 4906-3-06(A)(1)-(2). Here, CGA's time to **object to the completeness of the application has long passed**. Kingwood's application was deemed complete on June 15, 2021, without any objection from CGA or any other party. In an August 26, 2021 Entry, the Administrative Law Judge reaffirmed this, and further found Kingwood's "accepted, completed application" was deemed filed as of August 26, 2021. Neither CGA nor any other party objected to the ALJ Entry. During the hearing, the application was admitted into the record as evidence, without any objection from CGA or any other party. (Tr. Vol. I at 235.)

CGA cannot wait until well after the application was deemed complete and after it was submitted into the record to now claim it was not complete. Consequently, CGA has waived any arguments about the application's technical completeness. The Board should arrive at the same

conclusion. Regardless and as noted above, any dispute over rule interpretation and the application's completeness is not relevant to the Board's weighing of the statutory criteria under R.C. 4906.10.

V. Kingwood has Shown that the Project Meets the R.C. 4906.10(A)(6) Criterion

As Kingwood's initial brief explains, the Project meets certain factors examined by the Board when analyzing R.C. 4906.10(A)(6), including economic benefits; public interaction; public safety; energy generation capacity; and minimal natural resources and aesthetic impacts. While CGA, Greene County, the townships, and Board Staff urge the Board to find that Kingwood has not met the R.C. 4906.10(A)(6) criterion, each of the arguments presented by the parties fail. Local opinion should not be considered, and if considered, it must be based on factual findings about the Project impacts. And, as the record shows, the opposition arguments are unfounded. The Project will: (1) not impact tourism and property values; (2) substantially comply with local land use plans (even though not applicable to the Project); (3) have significant positive and local statewide economic impacts; (4) have protective setbacks and adequate screening; and (5) withstand severe weather events as a result of proper design. Consequently, the Board should disregard the unsubstantiated local opinions presented by the intervenors and issue a certificate for the Project, which will serve the public interest of Ohio citizens and provide various benefits, including \$6.75 million in new economic output.

A. The Siting of a Major Utility Facility should not be a Popularity Contest

R.C. 4906.10(A)(6) directs the Board to consider whether a proposed project will benefit the general welfare of all Ohio citizens. The Board, however, in recent proceedings has turned the power siting process into a popularity contest and a race to see which side (for or against a project) can put the most comments on the public docket, convince local officials to pass resolutions taking positions on the project, and who can muster the most support at public hearings. Local public

opinions, especially unsubstantiated public opinions, should not be considered and are not contemplated by the language R.C. 4906.10(A)(6). Here, the record demonstrates the unsubstantiated opinions presented by local opposition have been adequately addressed and mitigated by Kingwood through the application or through the 39 protective conditions proposed in the Joint Stipulation. Further, the Board should recognize that the local opinions expressed in this proceeding are not representative of the views or wishes of all Greene County residents. Consequently, returning to past precedent issued prior to June 24, 2021, the Board should consider whether the Project is in the public interest (which it is) and not whether the Project is popular with local governmental entities and local residents.

1. The Board Should Return to its Traditional Standard of Evaluating R.C. 4906.10(A)(6) and Not Consider Local Public Opinion

As Kingwood has already extensively discussed in its initial brief, the Board should adhere to the statutory language of R.C. 4906.10(A)(6), which requires it to consider the general public interest. *In re Application of Duke Energy Ohio, Inc.* 166 Ohio St.3d 438, 2020-Ohio-2803, 187 N.E.3d 472, at ¶ 30 (noting that division (A)(6) requires the Board to account for the interests of the general public). Vehement opinions expressed by a minority of local residents from the Project Area has not been traditionally considered by the Board. Indeed, **from May 15, 2018 through June 24, 2021**, the Board has followed its past precedent, considered whether a proposed project benefits the general public, and found that 13 utility scale solar facilities satisfies R.C. 4906.10(A)(6) under this standard.⁵

⁵ These cases are: *In re Hardin Solar Energy LLC*, Case No. 17-773-EL-BGN, Opinion, Order, and Certificate (Feb. 15, 2018); *In re Hillcrest Solar I, LLC*, Case No. 17-1152-EL-BGN, Opinion, Order, and Certificate (Feb. 15, 2018); *In re Vinton Solar Energy LLC*, Case No. 17-774-EL-BGN, Opinion, Order, and Certificate (Sept. 20, 2018); *In re Willowbrook Solar I, LLC*, Case No. 18-1024-EL-BGN, Opinion, Order, and Certificate (Apr. 4, 2019); *In re Hecate Energy Highland, LLC*, Case No. 18-1334-EL-BGN, Opinion, Order, and Certificate (May 16, 2019); *In re Hardin Solar Energy II, LLC*, Case No. 18-1360-EL-BGN, Opinion, Order, and Certificate (May 16, 2019); *In re Nestlewood*

Since June 24, 2021, the Board has embarked on a dangerous path, contrary to the express statutory language of R.C. 4906.10(A)(6), by considering whether local opinion is for or against the Project. *In re Republic Wind*, Case No. 17-2295-EL-BGN, Opinion, Order, and Certificate (June 24, 2021), at ¶ 91. Under this new analysis, 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. *Id.* at ¶ 92-99. However, even though the Board considered local public opinions in *Republic Wind*, the Board called for a balancing approach to assess “the projected benefits against the magnitude of potential negative impacts on the local community.” *Id.* at ¶ 91.

Recently, the Board has stepped even further from the statutory language in R.C. 4906.10(A)(6) and the balancing approach espoused in *Republic Wind*, in a proceeding involving a transmission line, where the Board expanded its new interpretation of this criterion to **only include local public opinion**. See *In re American Transmission Systems, Inc. (ATSI)*, Case No. 19-1871-EL-BTX, Opinion, Order, and Certificate (May 19, 2022), at ¶¶ 70, 81 (considering comments submitted on the public case docket, even though **only two comments had been filed** as of the date of the adjudicatory hearing on November 30, 2021). Indeed, various opposing parties rely heavily on the *ATSI* case to urge the Board to only consider the local public opinion presented in this proceeding and disregard any other benefits the Project would generate. (*See, e.g.*, Cedarville Br. at 2-3; Miami Br. at 2; Xenia Br. at 2; In Progress Br. at 2-3; Staff Br. at 7-8.)

Solar I, LLC, Case No. 18-1546-EL-BGN, Opinion, Order, and Certificate (Apr. 16, 2020); *In re Atlanta Farms Solar Project, LLC*, Case No. 19-1880-EL-BGN, Opinion, Order, and Certificate (Dec. 22, 2020); *In re Madison Fields Solar Project, LLC*, Case No. 19-1881-EL-BGN, Opinion, Order, and Certificate (Jan. 21, 2021); *In re Yellowbud Solar, LLC*, Case No. 20-972-EL-BGN, Opinion, Order, and Certificate (Feb. 18, 2021); *In re Big Plain Solar, LLC*, Case No. 19-1823-EL-BGN, Opinion, Order, and Certificate (Mar. 18, 2021); *In re Hecate Energy Highland 4, LLC*, Case No. 20-1288-EL-BGN, Opinion, Order, and Certificate (Mar. 18, 2021); and *In re Arche Energy Project, LLC*, Case No. 20-979-EL-BGN, Opinion, Order, and Certificate (Apr. 15, 2021).

Kingwood **disagrees** with this new interpretation of R.C. 4906.10(A)(6) because **there is no textual or precedential basis** for the Board to consider such opinion in its examination of “public interest, convenience, and necessity.” As a creature of statute, the Board only has powers conferred upon it by the Ohio Legislature. *In re Black Fork Wind Energy, LLC*, 156 Ohio St.3d 181, 2018-Ohio-5206, 124 N.E.3d 787, ¶ 20. The Board should interpret R.C. 4906.10(A)(6) as written, which does not mention the consideration of local governmental and public opinion (and neither do the other criteria in R.C. 4906.10). *Weiss v. Pub. Util. Comm’n of Ohio*, 90 Ohio St.3d 15, 17, 2000-Ohio-5, 734 N.E.2d 775 (stating that statutes should be applied as written and words in a statute should be afforded their customary meaning). Overall, the current, inappropriate emphasis on the opinions of a localized group consisting of only a minority of residents departs from the Board’s prior precedent and the statute. Consequently, the Board **must return to the analysis it previously undertook** for this criterion prior to the issuance of the *Republic Wind* decision on June 24, 2021. *See, e.g., In re Champaign Wind, LLC*, Case No. 12-160-EL-BGN, Opinion, Order, and Certificate (May 28, 2013), at 99-102 (issuing a certificate to a wind project over opposition from an intervening county, three townships, and a resident opposition group).

2. Even if the Board Considers Local Opinion (Which it Should Not), the Board Should Only Consider Local Opinion Grounded in Fact

While the Board has discretion to change its prior statutory interpretation, the new interpretation **must be reasonable**. *In re Ohio Power Co.*, 144 Ohio St.3d 1, 2015-Ohio-2056, 40 N.E.3d 1060, at ¶¶ 16, 28. As is the case here, mere local opposition to a proposed project alone, without any basis in fact, cannot outweigh the benefits a project will generate for the general public in the state. *See, e.g., In re Champaign Wind, LLC*, 146 Ohio St.3d 489, 2016-Ohio-1513, 58 N.E.3d 1142.

Indeed, **only six years ago**, the Supreme Court of Ohio considered a wind farm case where various local governmental entities, including the Board of Commissioners of Champaign County, Ohio and the Boards of Trustees of the Union, Urbana, and Goshen Townships intervened in opposition to the project. *Id.* at ¶ 4. In that proceeding, the Court declined to overturn the Board's grant of a certificate to the wind farm. *Id.* at ¶ 1. In doing so, the Court recognized, that among other concerns, the intervening county and township officials' concerns regarding decommissioning were based on incorrect assumptions. *Id.* at ¶ 50. The county and townships argued that the wind farm project did not meet R.C. 4906.10(A)(6) because the Board's formula to calculate a decommissioning bond might not adequately cover the total decommissioning costs. *Champaign Wind*, at ¶ 50. The Court disagreed, finding there was no statutory authority directing the Board to calculate the bond in a specific manner, and in the absence of that, the Board had appropriate discretion to arrive at a reasonable formula. *Id.* In sum, the Supreme Court of Ohio has indicated that unsubstantiated local opinions should not be evaluated under R.C. 4906.10(A)(6).

Importantly, the Board's recent opinions considering local governmental and public opinion take into account **whether the local opinions expressed are substantiated**. For example, in the *Republic Wind* proceeding, the Board found that local public opposition to the proposed wind farm outweighed the positive economic benefits and environmental impact of the project because construction in an area of documented karst features could negatively impact the local community and did not satisfy R.C. 4906.10(A)(3) (minimum adverse environmental impact). *In re Republic Wind*, Case No. 17-2295-EL-BGN, Opinion, Order, and Certificate (June 24, 2021), at ¶ 95-99, 132.

As the Board noted in *Republic Wind*, that project was proposed on a unique terrain consisting of karst formations, which can result in sinkholes, caves, and underground streams replenished by rainwater that wears away the rock and eventually returns to the surface as springs, seeps, or as base flows in streams. *Id.* at ¶ 109. In fact, 50 – 100 percent of the project area was estimated to have karst. *Id.* at ¶ 127-28. The Board did not believe there was sufficient evidence to determine the project could be built on karst terrain without adversely affecting the environment or properly serving the public interest. *Id.* at ¶¶ 2, 98. The Board also held the Project was not in the public interest because the applicant had not submitted a geotechnical evaluation addressing karst. *Id.* at ¶ 98.

Similarly, in the *ATSI* case, the Board found that local public opinion, which included comments submitted by local public officials, was substantiated because the proposed transmission line did not satisfy R.C. 4906.10(A)(2) (environmental impacts) and R.C. 4906.10(A)(3) (minimal adverse environmental impact). *In re American Transmission Systems, Inc. (ATSI)*, Case No. 19-1871-EL-BTX, Opinion, Order, and Certificate (May 19, 2022), at ¶¶ 81-84. The Board found the applicant did not consider recent development plans (existing at the time of application submission) for the downtown Youngstown area and instead utilized older, 2010 plans to develop the proposed routes. *Id.* at ¶ 81. The Board also found that a proposed alternate route would cause greater environmental impacts to the project area than the preferred route. *Id.* at ¶ 82. Further, the applicant did not fully evaluate the impact to historic cultural resources for the alternate route. *Id.* at ¶ 83. Consequently, weighing both the public opposition documented in the proceeding and the local impacts to the community, the Board determined the applicant had not adequately considered the potential adverse impacts of the Project. *Id.* at ¶ 80.

Considering the *Republic Wind* and *ATSI* cases together, to date the Board has **not given credence or weight to local public opinion**, including governmental opinion, **if not supported by actual, demonstrated harm**. Thus, if Board considers local governmental opinions (which it should not), the opinions must be substantiated and related to a factual issue about the Project.

3. Local Public Opinion in this Proceeding is Unsubstantiated

As an initial point, the public comments filed on the case docket in Board proceedings are unreliable, and undue reliance on such unsworn testimony can be problematic. The submission process for public comments on the Board website provides no way to determine if the submitted comments represent the view of someone within, adjacent, or even close to the Project Area. As shown below, the **comments can be submitted by anyone, from any jurisdiction, and even anonymously**:

The screenshot shows the 'File a Comment' page on the Ohio Power Siting Board website. The page has a blue header with the OPSB logo and navigation links. Below the header, there is a section titled 'File a Comment' with a sub-header 'Use the form below to file a comment regarding an OPSB case.' The form itself is white and contains several input fields: 'Would you like to remain anonymous?' (with a red arrow pointing to it and a box labeled 'Allowing anonymous comments'), 'City:', 'State:', 'Docketing Case Number:', 'Project Name:', and 'Enter your Comment or Complaint:'. A 'Submit' button is at the bottom left. A 'Take me back' button is in the top right corner of the form area.

Further, local public opinion expressed in this proceeding focuses on issues adequately addressed through the application and the 39 protective, proposed conditions in the Joint Stipulation. Indeed, the briefs filed by the Greene County and the townships focus on **unsubstantiated concerns**, which have already been addressed by Kingwood. These include impacts to tourism (the Project will not be visible from popular tourist areas adjacent to the proposed Project); property values (existing studies do not demonstrate negative impacts to properties adjacent to existing solar projects); adherence to local land use plans (not applicable to the Project); drainage (addressed in the application and through Joint Stipulation Conditions 32, 33, and 34); erosion (Kingwood will obtain a stormwater permit and provide pre- and post-construction stormwater calculations to local officials pursuant to Joint Stipulation Condition 19); loss of agricultural land (only one percent of Greene County agricultural land will be out of production and the Project Area can be returned back to agriculture upon decommissioning); and setbacks (Kingwood has expanded setbacks, including 250 feet between non-participating residences and the Project's fence line). **In sum, the local governmental entities cannot point to actual, demonstrable harm that could be caused by the proposed Project.**

It is also deeply disturbing and discouraging that the local governmental entities, which are charged with ensuring the general health, welfare, and safety of its citizens, would be swayed by a vocal minority. For example, the Greene County Board of Commissioners **admits the county would benefit from the Project**, but still, inexplicably, determined that "public good would best be served by opposing the Project altogether." (Greene County Br. at 12.) The record also shows that all three township Boards were influenced by a small minority of each township's population. (Tr. Vol. VI at 1294, 1450-52, 1538.)

Tellingly, resolutions filed by the governmental entities in this proceeding **do not identify legitimate concerns**. Intervention by Greene County and the townships was supported by resolutions that indicated no opposition to the Project and only reflect a desire for the local government officials to intervene in this proceeding. (Kingwood Exs. 86, 96, and 98.) Moreover, the resolutions in opposition to the Project later passed by the three townships are vague and rely on generic statements stating the Project's incompatibility with the "general health, safety, and welfare," but do not provide any actual evidence of this incompatibility. (Kingwood Ex. 20 at 3; Kingwood Ex. 65 at 3; Kingwood Ex. 68 at 4; Xenia Township Ex. 1 at Ex. A.) For example, Mr. Hollister (Miami Township) admitted that the township's resolution against the Project did not specifically mention any issues such as visual impacts, ecological impacts, drainage, and noise. (Tr. Vol. VI at 1460-61.) And, when cross-examined about the meaning of "general health, safety, and welfare," township officials were unable to identify issues that have not been adequately addressed by the Application or Joint Stipulation Conditions:

- Mr. Ewry (Cedarville Township) did not know how the Project would impact the health of township residents other than causing "emotional stress." (Tr. Vol. VI at 1530-31.) He mentioned that the Project is incompatible with the safety of township residents due to construction traffic and potential contamination of wells. (*Id.* at 1531-32.) With regard to the welfare of residents, Mr. Ewry was only able to note that adjacent residents view the Project "unfavorably." (*Id.* at 1532.)
- Mr. Combs (Xenia Township) expressed concerns about the health and well-being of Xenia Township residents due to pollution, run off, and dust generated by the Project; welfare issues such as property values, impacts to wildlife, and tourism; and safety issues such as increased traffic and access to emergency medical services. (Tr. Vol. VI at 1314-16.)

Further, while the Greene County resolution in opposition to the Project specifically mentions economic detriment to tourism (and Mr. Combs also raised this concern during cross-examination), the evidence in the record demonstrates that existing vegetation, proposed

screening, and enhanced setbacks will ensure tourist areas in proximity to the Project Area will have no views of the Project.

In defending their resolutions, township officials claimed that in their opinion, the Board was not capable of addressing their concerns. (*See, e.g.* Tr. Vol. VI at 1318-19 (Mr. Combs does not believe the Board can address identified concerns) and 1459 (Mr. Hollister thinks the Board does not have field Staff)). To the contrary, the Board has ongoing jurisdiction of major utility facilities under its governing statutes. The Board also utilizes its Staff to investigate applications as it did in this case, where Staff, taking into account its recommended conditions in the Staff Report, **did not identify any technical deficiencies with the Project's design**. (Staff Ex. 1 at 47-53.) And, importantly, the Board regularly utilizes conditions like those proposed in the Joint Stipulation to ensure commitments are met and impacts minimized. The townships' opinion about the Board's ability is just another example of an unsubstantiated local opinion.

Overall, if the Board stays the course of considering local public opinion, then it should rely on something greater than unsubstantiated local opinion. In this proceeding, the Board must decline to follow the local public opinion expressed in this proceeding, including governmental opinion, because none of the opinions presented have any basis in fact and are not supported by the record.

4. The Record Does Not Support a Finding of "Overwhelming Opposition"

Local government intervenors and even Board Staff place great emphasis on the opposition expressed by local residents, but a review of the evidence admitted during hearing demonstrates the following: (1) local officials **did not consult a majority of their constituents** regarding the Project; (2) some public officials may be biased against the Project; and (3) there is county-wide support for the Project. Each of these points are further discussed below.

a. Local Officials only Consulted a Minority of Residents

The crux of the arguments presented by intervening parties is that opposition to this proposed Project is “prominent,” “unanimous” or “compelling,” but these characterizations **are simply not supported by the record** in this proceeding. (CGA Br. at 5; Greene County Br. at 11; Cedarville Br. at 10; Miami Br. at 4-5; Xenia Br. at 3; In Progress Br. at 3; Staff Br. at 4-7.) For example, the township trustees presented the following testimony:

Local Government Entity	Population	Communication with Local Residents
Cedarville Township	5,900	Jeff Ewry, a Cedarville Township Trustee, only spoke to “three to four dozen or less” people about the Project. (Tr. Vol. VI at 1506, 1538.) At the most, this only represents 0.8% of the township population.
Miami Township	5,000 as of 2018	Don Hollister, a Miami Township Trustee, conversed with “dozens” of residents about the Project (but, did not avoid double counting) and heard from about 200 people in a public meeting. (<i>Id.</i> at 1450-52.) Even assuming Mr. Hollister consulted with 250 Xenia Township residents, this only represents 4% of the Xenia Township community.
Xenia Township	6,537 in 2010	Stephen Combs, a Xenia Township Trustee, only spoke to about 40-50 residents and received about 50 emails opposing the Project. (Tr. Vol. VI. at 1292-94.) To truly capture the Xenia Township residents’ thoughts on the Project, Mr. Combs would have had to speak to over 3,000 people, at the very least, but he only knew about 1.5% of the population’s concerns. (<i>Id.</i> at 1294.)

Local officials have not attempted to inquire whether the majority of the county and township residents are actually in support of the Project. Indeed, as discussed below, the public opinion poll that Kingwood commissioned shows county-wide support for the Project. The Board should not

place any emphasis on local public official testimony, and related resolutions, in opposition to the Project.

b. Some Public Officials May be Biased Against the Project

What is more telling than the opposing parties' inability to point to actual harm as a result of the Project is the possible bias exhibited by some of the public officials entrusted with general safety, health, and welfare of Greene County and township residents. For example, Mr. Hollister admitted he is personally opposed to the Project and has even followed and commented on the CGA Facebook group since 2018. (*Id.* at 1463-66.) Furthermore, Brandon Huddleson, the Greene County administrator, has been in close contact with CGA member Nicole Marvin regarding the Project. In early 2021, Mr. Huddleson told Ms. Marvin that he would not be recommending a PILOT program for the Project to the Greene County Commissioners. (Tr. Vol. VII at 1727.) Within 14 minutes of receiving an email from Juliana Graham-Price about Staff's recommendation to deny Kingwood's application, Mr. Huddleson forwarded the email to Ms. Marvin. (*Id.* at 1725.) However, he did not remember sending the email to any other person. (*Id.* at 1726.)

Finally, even though the overall modifications to the county's existing land use plan, "Perspectives 2020: A Future Land Use Plan for Greene County" would not be ready until September 2021, Mr. Huddleson advised the county commissioners to **consider an amendment specifically for solar projects due to the Kingwood Solar Project** (before the rest of the modifications were complete). (Tr. Vol. VII at 1739-41.) And, he discussed this proposed amendment with Ms. Marvin **prior to its passage** on August 24, 2021. (Tr. Vol. VII at 1715-16.) Mr. Huddleson also testified that "the Board of Commissioners [is] outlining their opposition [to the Project] by that amendment" because the Project "does not meet these criteria." (Tr. Vol. VII

at 1742-43.) Overall, the testimony presented by these officials at the very least suggests a bias against the Project that then influenced their positions and recommendations.

c. The Record Evidence Demonstrates Widespread Support for the Project

Initially, Kingwood notes that if the Board's preference is to now consider all public comments filed on a case docket (despite being unsworn testimony), then, as Dylan Stickney, project lead for the Kingwood Solar Project testified, **all 76 letters of support** from the International Brotherhood of Electrical Workers ("IBEW") should be given equal weight. (Tr. Vol. I at 197-98.) As of the date of Mr. Stickney's direct testimony, with the addition of these letters, there were 121 letters of support versus 83 comments in opposition. (Kingwood Ex. 6 at 36-37.) If the Board is now considering these types of comments in its analysis of R.C. 4906.10(A)(6), it should recognize and acknowledge the comments in support expressed by IBEW members who live and work in the general vicinity of the Project. (*Id.*)

Similar weight should be afforded to the **sworn** testimony presented by David Bruce, special projects coordinator with the IBEW, who presented testimony at the local public hearing held on November 15, 2021. Mr. Bruce testified that he is a lifetime resident of Greene County in the city of Xenia. (Nov. 15, 2021 Tr. at 148.) Mr. Bruce testified that his children attend school in Xenia and the proposed PILOT could provide funding "so the schools **will not have to beg the citizens to levy for funds** or a new school." (*Id.* at 149.) He also highlighted another benefit of the PILOT program which requires the Project to be **built by 80 percent of Ohio workers**. (*Id.*) He further explained that "Greene County has an even better advantage with that 80 percent requirement because [of] IBEW Locals Union 82, **156 members** reside here in Greene County." (*Id.* at 150, emphasis added.) He also noted that the local IBEW chapter has a partnership with the Greene County Career Center, which will put students on the Project. (*Id.*)

Kingwood has also demonstrated that a majority of Greene County residents 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**, compared to 23% who are opposed. (Kingwood Ex. 104 at 1-2; Citizens Ex. 16 at 10.)

Cedarville Township claims that the poll does not represent the opinions of rural areas because only 32% of the responses were from residents of the 13 townships in Greene County. (Cedarville Br. at 15.) However, the poll was conducted to measure the Project's support on a **county-wide basis** from a representative sample of registered voters in Greene County. (Tr. Vol. VIII at 2046.) As Jim Hobart of Public Opinion Strategies explained, **a telephone survey of only the three townships solely is not feasible**. (*Id.* at 2064-65.) 75 to 100 unique phone numbers are required to complete one interview; it follows that for 350 interviews, 35,000 phone records of registered voters would be required. (*Id.* at 2065) Such data is not available for smaller geographical areas in Greene County, including Cedarville, Miami, and Xenia Townships. (*Id.* at 2059-60, 2064-65.)

Miami and Xenia Townships' arguments regarding the evidentiary value of the poll are also of little merit. The townships claim the poll was designed in a biased manner to provide one-sided information by alluding to the \$1.5 million the Project would generate annually for the local community. (Miami Br. at 5-6; Xenia Br. at 6-7.) First, this claim is baseless because the townships **did not provide any expert testimony refuting** the manner in which the poll was conducted by Public Opinion Strategies. Second, Mr. Hobart explained that including factual statements about the Project to elicit responses from poll participants is a valid way to formulate questions. (Tr. Vol. VIII at 2063-64.) In fact, as Mr. Hobart testified "voters are regularly given information when – when they are asked about their opinion on things" **such as local referenda**

about which election ballots contain additional, specific information. (*Id.* at 2064.) In sum, the poll, which included a representative sample of the electorate, is a reliable, fair, and balanced way to evaluate public opinion about the Project from citizens in Greene County. (Kingwood Ex. 104 at 4.)

Finally, Public Opinion Strategies (the **largest political and public affairs survey research firm in the country**) has extensive expertise in conducting such polls. (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.* at 1) The Board is able to confidently rely on the poll results.

In sum, if the Board chooses to depart from the statutory language of R.C. 4906.10(A)(6) and prior precedent, and place a greater emphasis on local opinion, it should **not be swayed** by the claims made by local governmental entities **who have subscribed to the unsubstantiated claims made by a vocal minority of local residents**. Instead, the Board only need consider the record evidence to determine that the Project enjoys county-wide support.

B. Tourism will not be Impacted Because the Community's Cultural and Historic Resources are Adequately Protected

CGA's claim that the Project is not in the public interest because it will damage local historic and cultural resources is unsupported by the record. Tourist areas like the John Bryan State Park and the Little Miami River, however, are shielded from Project views due to existing dense vegetation. (Tr. Vol. II at 258-259, 270; Kingwood Ex. 1, Appx. Q at 8-10.) CGA 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. VI at 1373.) This was also confirmed by Lynn Gresock (Principal Consultant for Haley & Aldrich) and Amy Kramb (an architectural historian from Kramb Consulting LLC), both of whom

have visited the Project Area. (Tr. Vol. II at 270, 336; Tr. IX at 2177, 2187-88; Kingwood Ex. 101 at 23.)

Further, new setbacks commitments (250 feet between non-participating residences and the Project's fence line and 500 feet between non-participating residences and inverters) and **an additional 4,000 linear feet** of vegetative screening will further mitigate any visual impacts to traveling tourists and vehicle passengers. (Jt. Ex. 1 at 4; Kingwood Ex. 18 at 2, Kingwood Ex. 18, Attach. A.; Kingwood Ex. 107 at 13.) The extra screening will be placed along Clifton Road and OH-72 and is above and beyond the screening for that area originally proposed in the application. (Kingwood Ex. 7 at 6.) Further, through Condition 37 in the Joint Stipulation, setbacks have been substantially increased throughout the Project, with specific focus on areas that stakeholders identified during settlement negotiations. (Kingwood Ex. 7 at 17-18; Jt. Ex. 1 at 11). First, the universal Project fence line setback from the public roads edge has been **increased from 30 feet to 50 feet**. (*Id.*) Second, the setback specifically for OH-72 and Clifton Road on the eastern portion of the Project will be a minimum of **300 feet from the public road right-of-way**. (*Id.*) Third, the setback from the Clifton Road right-of-way in the western portion of the Project will be a **minimum of 200 feet to the Project fence line**. (*Id.*) The extra screening and setbacks will minimize the visual impact of the Project for drivers going to the area's tourist areas.

To help visualize the combined impact of these increased setbacks and the enhanced screening, Dylan Stickney, the Project lead for Kingwood, included visual simulations in his testimony. (Kingwood Ex. 7 at 18, Figures 3 and 4.) Figures 3 and 4 from Mr. Stickney's supplemental testimony are reproduced below and capture areas that various stakeholders identified as being of local importance: the views from OH-72 driving from the Historic Clifton

Mill towards Cedarville and the east-facing view from Clifton Road near the entrance to 4-H Camp Clifton. (*Id.*)



These simulations represent how the increased setbacks and enhanced screening of the Project **will substantially reduce the view of the Project** from those roads, especially to anyone driving on

either of these roads. (*Id.*) **Notably, no party challenged the accuracy of these simulations at hearing.**

Furthermore, despite CGA's assertions, Greene County is **not unique** in terms of Native American settlements and African American history. Kingwood presented rebuttal testimony from Amy Kramb, an architectural historian from Kramb Consulting LLC with **25 years of experience in architectural cultural resource analysis.** (Kingwood Ex. 109 at 3.) Ms. Kramb also conducted the architectural survey for this Project. (Kingwood Ex. 101.) As Kingwood discussed in its initial brief, while Greene County has a rich history of Native American occupation and activity, **so do most Ohio counties.** (Kingwood Ex. 109 at 3-4.) Similarly, while there are known Underground Railroad sites in Greene County, **other Ohio counties also have pre-Civil War African American settlements.** (*Id.* at 4.)

Importantly, CGA's cultural expert, Terry Fife, upon cross-examination, admitted that Greene County's cultural and historic resources are not unique. She agreed that Native Americans were located throughout Ohio. (Tr. Vol. VI at 1239.) She also admitted **multiple Ohio counties have a connection with the Underground Railroad.** (*Id.* at 1236, 1258-59, 1265.) Finally, because Ohio borders a former slave state, she testified that **all counties along the Ohio River** likely have some **history about the anti-slavery movement.** (*Id.* at 1265.)

The Board should also place **little weight** on the testimony submitted by Ms. Fife because she is **neither qualified to opine on renewable energy projects nor an impartial expert.** Ms. Fife has **not done any work on solar projects** and none of her experience is in renewable energy. (Tr. Vol. VI at 1230.) Ms. Fife is also **deeply opposed** to the Project. For example:

- She learned about the Project in the fall of 2018 and “it did not take very long” for her to oppose the Project. (*Id.* at 1228.)

- She has been a member of CGA since 2019 and is currently the secretary for the organization. (Tr. Vol. VI at 1225.)
- She makes financial contributions to CGA. (*Id.* at 1225-26.)
- Ms. Fife participated in the group decision to intervene in this proceeding. (*Id.* at 1226.)
- Her husband and two of her relatives are also CGA members. (Tr. Vol. VI at 1226.)
- She would not support a solar project of any size around her. (*Id.* at 1241, 1261-1262; noting that a 20-acre project would likely be objectionable).

Though CGA also unfairly questions Ms. Kramb’s experience and the architectural survey completed by her, the Board should recognize Ms. Kramb’s **25 years of experience** in the cultural resources, historic preservation, and planning industries. (Kingwood Ex. 109 at 3-4, Attach. AK-1 at 1.) Her experience includes conducting **hundreds** of Ohio cultural resources surveys (**four specifically for solar projects**). (*Id.*) Ms. Kramb has conducted three other cultural resources studies in Greene County for Wright State University and the Ohio Department of Transportation. (Kingwood Ex. 109 at 3.) Further, the **SHPO has concurred with the architectural survey** conducted by Ms. Kramb for this Project. (Kingwood Ex. 2 at 152; Kingwood Ex. 8 at 17.) SHPO agreed that views of the Project from potentially eligible National Register of Historic Places (“NRHP”) properties will be limited. (*Id.*) SHPO has also concluded that Ms. Kramb’s analysis is complete and that **no additional history/architecture investigations are necessary**. (*Id.*)

Finally, CGA falsely claims the proposed layout in the Joint Stipulation can be “secretly” changed by Kingwood to no longer honor commitments to minimize visual impacts made through the Joint Stipulation. (CGA Br. at 54-55.) During rebuttal testimony, Ms. Kramb testified that four properties eligible for listing on the NRHP near 1451 Bradfute Road will not have Project views due to the updated Project layout and enhanced screening. (Tr. Vol. IX at 2204.) CGA believes Kingwood will shirk these commitment (updated layout and enhanced screening) made

in Joint Stipulation Condition 4 (enhanced setbacks) and Condition 16 (enhanced landscape screening) if these conditions are adopted by the Board. (CGA Br. at 47-48.)

But, CGA's contention is mistaken. While the exact placement of Project components is subject to construction, Joint Stipulation Condition 4, if adopted by the Board, will **require Kingwood to file its final Project design on the case docket to ensure compliance with certificate conditions.** (Kingwood Ex. 1 at 9; Jt. Ex. 1 at 3, Condition 4.) In addition, the Project must comply with the Joint Stipulation conditions putting in place setbacks for equipment, public roads, and non-participating residences. (Jt. Ex. 1 3-4, 11.) Further, as Mr. Stickney testified, the placement of certain pieces of equipment such as panels, racking, and inverters may change slightly from the current layout, but the fenceline, switchyard, substation, and laydown yards would stay as presented. (Tr. Vol. 1 at 212-13; Tr. Vol. IX at 2165-66.) Moreover, while final engineering efforts will determine the exact location of all equipment (based on final equipment model selection and additional geotechnical studies prior to construction), Kingwood cannot create greater impacts (i.e. newer impacts to wetlands or sensitive species) than what is proposed in the Application due to Condition 4. (Kingwood Ex. 1 at 9, 91-92; Jt. Ex. 1 at 3, Condition 4.) And, the Board **routinely approves similar conditions** allowing the applicant to provide final project design prior to construction to ensure certificate condition compliance. *See, e.g., In re Union Ridge Solar, LLC*, Case No. 20-1757-EL-BGN, Opinion, Order, and Certificate (Jan. 20, 2022), at ¶ 97(4); *In re AEUG Union Solar, LLC*, Case No. 20-1405-EL-BGN, Opinion, Order, and Certificate (Feb. 17, 2022), at ¶ 91(4); and *In re Tymotchee Solar, LLC*, Case No. 21-04-EL-BGN, Opinion, Order, and Certificate (Mar. 17, 2022), at ¶ 95(4). Consequently, the Board **should not heed this incendiary claim** raised by CGA in its initial brief.

Overall, based on the results of the architectural survey and Ms. Kramb's testimony, the Board can confidently conclude the area's cultural and historic resources will not be impacted. Therefore, no impacts to local tourism are expected.

C. The Project Complies with Greene County's "Perspectives 2020" Future Land Use Plan and Farmland Preservation Plan

Pursuant to R.C. 4906.13, any local land use plans would be inapplicable to the Project. CGA agrees with this. (CGA Br. at 9.) However, a review of the Perspectives 2020 plan and the Greene County Farmland Preservation Plan indicates that the Project is actually in compliance with both of these plans, despite assertions to the contrary by CGA and Greene County. (CGA Br. at 8-9; Greene County Br. at 8-9.)⁶ **The core value of these land use plans is to preserve land that is best suited for farming**, which the Project is uniquely suited to do by preserving the Project Area from other forms of development for at least 35 years. For example, the Perspectives 2020 document states:

Since farming, as it is generally practiced today, is an essential industrial process incompatible with immediately adjacent residential uses, it is entirely appropriate to plan for agricultural preservation. Without adequate preservation policies prime farming areas will continue to be extremely vulnerable to future waves of uncontrolled low-density sprawl development. The efforts to protect this agricultural base will be founded upon an understanding of the dynamics of metro-agriculture as a land use, a business, and as a way of life.

(Kingwood Ex. 61 at 49.)

⁶ Confusingly, Greene County appears to argue that the Project is not in compliance with the Perspectives 2020 document and the accompanying amendment to it (passed on August 26, 2021), but also admits the plan is inapplicable. (Greene County Br. at 9, noting that "this Board is not obligated to adopt the policies in the Perspectives 2020 amendment.")

Similarly, the Project creates another way, i.e., a tool, to preserve agricultural land for future generations, consistent with the Farmland Preservation Plan. That plan lists a number of tools:

The Greene County Farmland Preservation Task Force has developed a plan: to raise awareness; to promote in an ordered fashion; recommend methods to assist local jurisdictions on how to conserve and maintain our agricultural resources; and has made recommendations for passing or modifying legislation to protect farmland. Options to achieve the goal of farmland preservation are limited, the following tools have been recommended and are specifically addressed in Chapter 6, Implementation Program:

Education

Conservation Easements

Purchase or Lease of Development Rights

Agricultural Zoning Districts

Urban Growth Boundaries

Cluster Development/Conservation Design

Agricultural District

Current Agriculture Use Value

Economics

The Five Acre Dilemma

(Kingwood Ex. 83 at vii.) Since the adoption of the Farmland Preservation Plan in 2020, the development of utility-scale solar projects on agricultural farmland has become very common. These projects, like the proposed Project, add another tool to the preservation plan because it will allow the return of land back to agricultural use, ensuring future generations have the opportunity to farm the land if they so choose.

Accordingly, as the record demonstrates, the Project will help Greene County achieve the goals espoused in these plans by preserving agricultural land within the Project Area during its 35-year life, as compared to other **residential or commercial development, from which land cannot be returned to agriculture**. (Kingwood Ex. 107 at 11.) As Mr. Stickney testified, residential development has already permanently altered a significant area surrounding the Project Area and

once land is converted to residential or commercial use, it cannot be reconverted to agricultural use. (*Id.*) In fact, various CGA witnesses, including Jenifer Adams, Verity Digel, Karen Mossing, and Angie Hanna, also agree that **preserving agricultural areas is in the public interest**. (Tr. Vol. IV at 820, 900, 915; Tr. Vol. V at 1167.)

D. The Siting of the Project on Agricultural Land is Prudent and Appropriate

The record also refutes other arguments by CGA opposing the Project being placed on agricultural land. Utility scale projects are routinely developed on agricultural land and the economic benefits to both the landowner, local community and state significantly outweigh the temporary removal of the land from agricultural use.

- **Solar Projects are Usually Sited on Farmland**

CGA also argues the Project does not comply with R.C. 4906.10(A)(6) because the Project Area will temporarily not produce crops. CGA makes various arguments about the importance of prime agricultural soils by relying on Michele Burns's testimony (the Executive Director of the Tecumseh Land Trust). (CGA Br. at 11; Tecumseh Ex. 1 at 2.) But, no evidence was presented to show any actual food shortages in Ohio, or even the world, other than some unsubstantiated claims about the Ukrainian crisis. (CGA Br. at 12.) In reality, the Board frequently approves solar projects which are sited on agricultural land. *See, e.g., In re Hardin Solar Energy LLC*, Case No. 17-773-EL-BGN, Opinion, Order, and Certificate (Feb. 15, 2018), at ¶ 27; *In re Willowbrook Solar I, LLC*, Case No. 18-1024-EL-BGN, Opinion, Order, and Certificate (Apr. 4, 2019), at ¶ 25; and *In re Big Plain Solar, LLC*, Case No. 19-1823-EL-BGN Opinion, Order, and Certificate (Mar. 18, 2021), at ¶ 34. In fact, as Alex Roedel from Nextracker testified, **agricultural land is the most common location for solar installation** in the United States. (Kingwood Ex. 16 at 6-7.)

Further, only **one percent of the agricultural crop land in Greene County** is being utilized by the Project. (Kingwood Ex. 84 at 1; Kingwood Ex. 103 at 3.) Specifically, there are

approximately 167,701 acres of farmland in Greene County and 89% or 149,254 acres are used for growing crops. (Kingwood Ex. 84 at 1.) Noting that about 1,500 acres will be removed from agriculture during the useful life of the Project, it follows that only about one percent of agricultural crop land is being taken out of production during this time. (Kingwood Ex. 1 at 2, 101; Kingwood Ex. 84 at 1.) While CGA claims this statistic is “misleading,” the Board’s website confirms that **no other solar projects have been sited in Greene County.** (Kingwood Ex. 68.) Moreover, if the Board were to adopt a blanket prohibition on the siting of solar farms on agricultural land, then this **would prohibit any further development of solar farms** in Ohio.

- **The Benefits from the Project Far Outweigh Profits from Farming**

Finally, CGA claims Greene County will lose about \$1,000,000 annually⁷ from farming activity, but the Project will generate **more than six times that amount** in economic output, annually, through its ongoing operations. (Kingwood Ex. 107, Ex. A at 3.) During cross-examination, Ms. Burns admitted she did not know how much of the \$1,000,000 figure would be the actual profit from farming. (Tr. Vol. VI at 1590-93.) On the other hand, Kingwood, as further demonstrated in its initial brief, **has demonstrated the real, tangible benefits** emanating from the Project.

A quick summary of these benefits include:

- **15 permanent jobs** in Ohio (including direct, indirect, and induced jobs). (Kingwood Ex. 107, Ex. A at 3.)
- **\$6.75 million annually** in new economic output. (*Id.*)
- **\$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.)

⁷ CGA mentions the Project Area produces \$10,000,000, but this is likely a typographical error due to testimony presented during the hearing. (CGA Br. at 11; Tr. Vol. VI at 1591.)

- Specifically, **\$28 million to \$40 million** in new tax revenues over the Project’s 35-year operating life for local school districts alone. (Kingwood Ex. 108, Ex. A at 3.)

These facts that are in the record establish that the Project will provide a significant net economic benefit at both the local level and the state level.

- **The Board Cannot Dictate what Individual Landowners Do with Their Property after the Project is Decommissioned**

The Board should not fall prey to CGA’s request to deny a certificate to Kingwood because there is no “guarantee that the descendants of the participating landowners will farm it ever again.”

The Board has **no jurisdiction** to dictate what private citizens can do with their property after the Project is decommissioned. Kingwood has provided a decommissioning plan, which Staff found sufficient. (Staff Ex. 1 at 17-18.) Staff also suggested a decommissioning condition, which Kingwood has accepted in the Joint Stipulation with only minimal edits. (Staff Ex. 1 at 18; Jt. Ex. 1 at 10-11; Kingwood Br. at Ex. B.) And, the record demonstrates 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.)

While it is conceivable that 35 years from now participating landowners may not want to restore the Project Area land back to farming, the Board cannot direct these landowners to do otherwise.

The Board may also take note that testimony from the public hearing by participating landowners and their family members showed a strong interest to keep the farms in their family for future generations. Ms. Knudsen, the daughter of a participating landowner, testified during the November 15, 2022 public hearing that “[our] farm, our family as an emotional tie to our land and we want to keep this land for our family for future generations and not to a housing developer.” (Nov. 15, 2021 at 27.) John Kyle, a participating landowner, testified that a reason he leased his agricultural land was to “keep the farm in the family.” (*Id.* at 197).

The testimony by Lisa Grafton, another participating landowner, about preserving the farm for her 3-year old grandson is especially compelling:

After that, these lands can be farmed again by future generations of our family, like my 3-year-old grandson, who loves the farm and every single tractor he sees. Our four children aren't interested in our farm right now. We're trying to assure that it will be there if Samuel, our grandson, wants to farm one day. If we are forced to sell because of some unforeseen action and a housing development is built, it's gone forever.

(Nov. 15, 2021 at 37-38).

Given the record in this proceeding, the Board should not hinder, as Ms. Knudsen testified, landowners' ability to do "what's right for their private property" and prevent them from taking "an alternative crop like solar and plan for the continuation of [their] family farm[s] into the future." (Nov. 15, 2021 at 28.) In sum, the Board can recognize the Project will preserve agricultural land in Greene County and that after decommissioning, the land can be returned to agriculture, if desired by landowners.

E. The Project will have Significant and Positive Local and Statewide Economic Impacts

The evidence on the record demonstrates that the Project will positively impact the state and local economies. Neither CGA nor Greene County denied that the Project would have net positive economic impacts. (*See generally* Greene County Br. at 12; CGA Br. at 15-21.) Instead, Greene County merely debated whether or not the County would be better served to sign a PILOT. (*See* Greene County Brief at 12 ("The County is operating with the understanding, in fact, that it would receive greater financial benefit from regular taxation than from the PILOTs . . .").) CGA quibbled with the methods used and how the data were presented, but it did not dispute the ultimate conclusions of the economic analysis. (CGA Brief at 19 ("Kingwood's economic impact report represents that the Project operation will support four direct jobs, 13 indirect jobs, and six induced jobs altogether, including four direct jobs, nine indirect jobs, and two induced jobs performed in

Greene County.”).) Moreover, Staff reviewed the economic analysis in the Staff Report and concluded that “the methodology of the IMPLAN model was appropriate for this study and that the estimated impacts reported by the Applicant are reasonable.” (Staff Ex. 1 at 15.)

While there is reasonable debate about which form of taxation would better for Greene County, there is no debate that the Project would represent a substantial economic benefit for the County. As Mr. Karim testified during his rebuttal testimony, the estimated 35-year allocation of property tax revenue to Greene County is estimated to be between \$55 and \$61 million dollars (Kingwood Ex. 108, Ex. A at 3.) As shown in Table 1 from his detailed analysis, the specific allocations to Greene County, the different townships, and the local school districts will vary depending on whether a PILOT agreement is signed or not. (*Id.*)

Table 1 <u>35-Year Allocation of Property Tax Revenue</u>		
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 108, Ex. A at 3.) Under either tax plan, however, **the total contribution to the local government entities would be substantial.**

CGA's various attempts to discredit the economic analysis are not compelling. CGA's criticism of the Applicant's economic analysis ignores the purpose of the economic analysis and attempts to focus on fact-specific instances of individual impacts caused by the project. (*See, e.g.*, Tr. Vol. I at 114-125; Tr. Vol. IX at 2130-2140; CGA Brief at 16-20.) Specifically, CGA alleges the impacts to individual farmers or agricultural service providers that would result from removing the land from active agricultural use for the Project duration. (CGA Brief at 16.) This includes claiming that Mr. Baldwin will no longer be able to farm a 106-acre field, which he leases from a participating-landowner cousin, and general information about other farmers who lease farmland from other participating landowners. (CGA Br. at 16; CGA Ex. 2 at 2-3; CGA Ex. 8 at 9.) Similarly, CGA claims other occupations rely on farming, since that revenue is generated by supporting farming activities. (*See, e.g.*, CGA Ex. 8 at 9; CGA Brief at 17.) This includes sellers of grain seed, purchasers of grain, custom applicators of fertilizers and herbicides, and other similar support services. (*Id.*)⁸ However, this argument misrepresents the purpose of the Applicant's analysis. The economic model evaluates the current economic activity supported by farming on the Project Area, evaluates the total projected economic activity attributed to the Project, and estimates the net impact of that change. CGA had the opportunity to provide an alternative economic analysis, or even to have an expert review the Applicant's analysis. But it chose not to. As a result, despite CGA's quibbles, the results of the Applicant's analysis are the only expert economic analysis in the record. The results of that analysis show that while certain farmers will no longer be farming the Project Area, and, it follows that those farmers will not be purchasing

⁸ These types of jobs would be considered "indirect" jobs using the terminology in the IMPLAN model used in the Applicant's Economic Study Report, because these jobs are "supported by the purchase of goods and services by the activity being modeled[.]" (*See* Kingwood Ex. 1, Appx. D at 3.) The Applicant's economic analysis shows that the Project would result in a net increase in the number of indirect jobs in both Greene County and Ohio. (*See generally* Kingwood Ex. 1, Appx. D)

seed to plant those fields, **there will still be a net economic benefit** to the Project in both Ohio and Greene County.

The Applicant's economic analysis demonstrates that the long-term net impact of the Project will be positive. Without even considering the substantial positive impacts of the Project's construction on the state and local economies, the Project is estimated to create 15 permanent jobs in Ohio and generate \$6.75 million annually in new economic output. (Kingwood Ex. 107, Ex. A at 3.) Despite CGA's focus on the existing farmers working in the Project Area, there is no support for an argument that the purpose of R.C. 4906.10(A) is to protect existing jobs for specific individuals at the expense of significant economic development.

CGA's analysis also ignores the fact that individual property owners own this land, and can choose to farm it or not, or lease it to others to farm or not. If they make more income leasing it to a solar site than they would farming or leasing it out to other tenants, that is their right and choice as private property owners. CGA would deny local landowners their right to make more income on their own property.

Contrary to CGA's claims, the Applicant's economic impact report provides sufficient evidence for the Board to conclude that the Project will provide significant and positive local and statewide economic impacts. The Project is projected to generate \$33.01 million of labor income through 444 Ohio jobs during the 16-month construction period. (Kingwood Ex. 107, Ex. A at 2.) Project construction, in total, will directly and indirectly support an estimated \$112.93 million of economic activity in the state. (Kingwood Ex. 107, Ex. A at 2.) The Project is also projected to create approximately \$6.75 million in new economic output annually in Ohio. (Kingwood Ex. 107, Ex. A at 3.) This includes between \$55 million to \$61 million in total tax payments to the local townships, the county government, and the local school districts over the life of the Project,

regardless of whether or not the Applicant signs a PILOT agreement. (Kingwood Ex. 108, Ex. A at 3.) In total, the Project will provide a net positive impact to the local and state economies.

F. Property Values will not be Impacted

Neither CGA nor Greene County have provided substantive evidence demonstrating that solar projects could negatively affect adjacent home property values. CGA asks the Board to utilize “common sense” when evaluating the impact of solar projects on adjacent property values; however, the Board **has to rely on credible evidence** to determine if such an impact exists. (CGA Br. at 45-46.) And, credible testimony from Andrew Lines, an appraiser with 19 years of experience, and related property value study conducted by his firm, CohnReznick, determined that existing solar energy uses had **no measurable impact on the value of adjacent properties**. (Kingwood Ex. 1, Appx. F at 2-3; Kingwood Ex. 9 at 4.) On the other hand, CGA’s witness, Mary Clay, offered unreliable testimony and incomplete studies replete with issues. Greene County presented no testimony to rebut Mr. Lines’s analysis and, as explained below, sought market data that is not currently available. In sum, the Board has confidently relied on Mr. Lines’s testimony **in many other proceedings** and should do the same here.

1. Recent Sales in the Project Area Confirm the CohnReznick Report

Despite the community’s knowledge 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 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. (Kingwood Ex. 105 at 8-9.) In fact, CGA member P. Chance Baldwin himself purchased a property located at 3051 Harbison Road during August 2020 (when the community already knew about the Project). (Tr. Vol. IV at 925-26.) Mr. Baldwin then sold the same property during August 2021 (presumably when more people

in the community knew about the Project because the application was filed on April 16, 2021). (*Id.*) This house was in disrepair. (*Id.* at 930.) Nonetheless, as Mr. Baldwin testified, the house sold at a price which reflected the value of the property. (*Id.* at 926, 929-30.) Thus, despite CGA and Greene County's allegations about price decreases, actual information from recent property sales in the Project Area confirm the conclusions of the CohnReznick report.

2. The Board Should not Rely on Ms. Clay's Testimony

CGA asks the Board to rely on Ms. Clay's testimony, but it is unreliable and biased. Indeed, it is telling that 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 accepted by the Kentucky Power Siting Board. (Tr. Vol. V at 1124-27.) Additionally, Ms. Clay's studies, which are included as Exhibits F and G in her direct testimony, are **replete with issues**. For her study involving the North Star Solar project, Ms. Clay utilized a print out of MLS averages in order to try and quantify how sales "should have" appreciated in the market. (*Id.* at 5) Ms. Clay did not review the actual MLS data to determine if any outliers should be excluded or review the Federal Housing Finance Agency's Housing Price Index ("FHFA HPI"), which is nationally recognized as the only collection of public, freely available house price indexes that measure changes in single-family home values based on data from all 50 states and over 400 American cities extending back to the 1970s. (Kingwood Ex. 105 at 6.) As Mr. Lines testified, such granular data review is important in case sale average from certain years (e.g. 2010, the very bottom of the residential real estate market) do not reflect market level transactions. (*Id.*)

Another example of Ms. Clay's problematic analysis is with regard to one of the properties she utilized for her North Star Solar study, 10200 367th Street, North Branch, Minnesota. The property, which is **surrounded by solar in all four directions**, sold on January 31, 2022 for

\$454,900. (*Id.* at 6.) The sale itself reflects that **Ms. Clay’s conclusions about alleged property price reductions is inaccurate**, because the property appreciated in the amount of \$124,900 (**37.85%** over five years), or **7.57%** average appreciation per year. (*Id.*) In comparison, the FHFA HPI reported that the overall average appreciation in North Branch was less than 5% per year, demonstrating that the 10200 367th Street property suffered no negative impact from the North Star project. (*Id.*)

This is just one example of Ms. Clay’s faulty analysis. Other examples of Ms. Clay’s faulty, biased analysis include:

- **Spotsylvania Solar:** The lot sales Ms. Clay relies on actually indicate that lot sales were decreasing during 2015 to 2017, prior to the approval of the solar farm in question (*Id.* at 6-7).
- **McBride Solar Farm:** Ms. Clay considered data and did a sale/resale analysis based on Zillow Home Value Index, which she considers to be a reliable source of information (Tr. Vol. V at 1147-48; Kingwood Ex. 105 at 7). That is not the case. Zillow is a private company and its Home Value Index is not open source (Kingwood Ex. 105 at 7). In contrast, governmental price indexes, such as the FHFA HPI, are public, freely available, and utilize transparent methodology which tracks the sale and resale of the same properties in local markets (*Id.*). Ms. Clay also did not attempt to confirm any of these sales with market participants (*Id.*).
- **Sunshine Farms:** Ms. Clay utilized lot sales next to the solar farm **prior to the solar farm being approved** for the contention that the lots are selling for less than lots not near the solar farm. (*Id.*) She also ignored recent home sales adjoining this solar farm after it was built that show no impact on property value (*Id.*).

Of the two witnesses, Mr. Lines is much more credible, experienced and thorough. The Board should place no weight on Ms. Clay’s testimony.

3. Ms. Clay’s “Analysis” on Vegetative Buffers is Misleading

Ms. Clay’s analysis in her study entitled “Landscaping and Utility Scale Solar Projects” (attached as Exhibit I to her testimony) is focused on **existing tree stands** and does not take into account any landscaping a developer may install. (Tr. Vol. V at 1107.) CGA’s initial brief focuses

on this incomplete analysis to falsely conclude that her analysis has “ominous ramifications for the 50 households located within 250 feet of the Kingwood Project Area.” But, during cross-examination, Ms. Clay testified that she was “**not sure** if there were or there was not new plantings around the – solar farm.” (*Id.*) Instead, Ms. Clay only measured “the distance in terms of [existing] woodland * * * between the solar farm and – and the edge of the property.” (*Id.*) Also, Ms. Clay has never visited any of the project sites discussed in Exhibit I and utilized appraisal data from another appraiser, Richard Kirkland. (*Id.* at 1108)

Ms. Clay’s analysis in Exhibit I also **directly contradicts** the CohnReznick study submitted in this proceeding, which indicates that solar farms situated in areas with existing native vegetation did not experience a value diminution. These specific examples illustrate this finding:

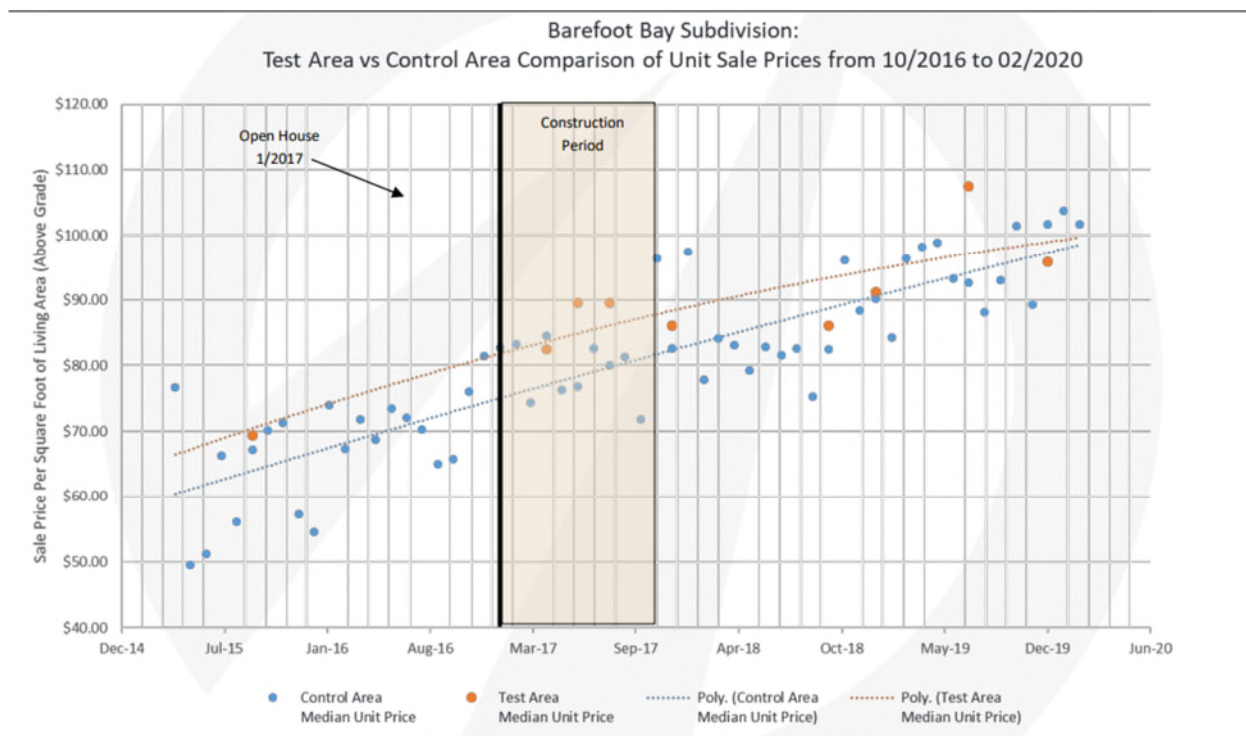
Project	Vegetation	Sales Analyzed	Result
North Star Solar Farm	Native vegetation and trees previously existed as a buffer along the frontage roads.	11 control sales and three test area sales.	The difference between test area and control area median price per square foot was 8.9%. The large positive difference is likely attributable to the larger parcel sizes of the test area sales. (Kingwood Ex. 1, Appx. F at 24, 31.)
Woodland Solar Farm	Landscaping around the solar site consists of the naturally occurring vegetation and forests.	Five control sales and one test area sale.	The difference between test area and control area median price per square foot was 4.99%. The positive differential is considered within the range for a typical market area and sales do not indicate that the Project had any negative impact on adjacent property values. (<i>Id.</i> at 71, 73.)
Barefoot Bay Solar Energy Center	The project is surrounded by trees and vegetation.	Seven control sales and two test area sales (Group 1) and 126 control area sales	The difference between test area and control area median price per square foot were calculated and were 6.86% (Group 1) and 2.07% (Group 2) ⁹ . The test area sales indicate that the solar farm did not have any negative impact

⁹ Group 2 was comprised of improved residential dwellings in the Barefoot Bay subdivision. (Kingwood Ex. 1, Appx. F at 97.)

Project	Vegetation	Sales Analyzed	Result
		and five test area sales (Group 2).	on the adjoining agricultural property values. (<i>Id.</i> at 90-91, 96-97.)

Notably, due to the frequency of sales in the Barefoot Bay subdivision, CohnReznick was able to analyze the prices of homes **before** the solar project was announced and **after** construction of the Project. (Kingwood Ex. 1, Appx. F at 98.) Specifically, nine test area sales and 903 control area sales were identified between the second quarter of 2015 and the first quarter of 2020. (*Id.*) Test area sales are plotted in orange and control area sales are plotted in blue in the chart that follows. (*Id.*) CohnReznick's analysis demonstrates that the price of test area sales during the construction period and after were not affected by the Project. (*Id.*)

Specifically, after construction of the solar farm, in parallel with the improving economic climate, it appears that unit prices for both the test and control areas **appreciated at a similar rate over the period** from the second quarter of 2015 to the first quarter of 2020. (Kingwood Ex. 1, Appx. F at 98.) Additionally, sale prices of homes **after** the construction of the solar farm **exhibit a similar appreciation trend as sales prior to the solar farm announcement**. (*Id.*) In other words test sales do not show a measurable difference in price after an adjacent solar project is complete. After reviewing the CohnReznick report, the Board can only come to one conclusion: proximity to a solar farm does not affect the value of homes.



4. CGA's Claims of Bias are False

CGA's claim that CohnReznick is biased in favor of solar companies is not supported by the testimony presented by Mr. Lines. As Mr. Lines explained in his rebuttal testimony, the firm is a leading audit, tax, and advisory firm with thousands of employees around the world in a wide variety of industries. (Kingwood Ex. 105 at 1-2.) Importantly, the firm's services for other industries **completely dwarf** the amount of work the firm does in the renewable energy space, which **only amounts to approximately 4%** of total revenue. (*Id.* at 2.) The firm's work within the energy sector is not limited to the renewable energy industry; in fact, the firm performs audit, tax, and advisory services for traditional oil and gas companies. (*Id.*)

While Ms. Clay's concerns appear to be focused on CohnReznick Capital, LLP, this entity, while an affiliate of CohnReznick LLP, is **entirely separate from CohnReznick LLP**. (Kingwood Ex. 105 at 2.) Mr. Lines further explained that the partners in CohnReznick Capital, LLP are different from the CohnReznick LLP partners and revenue from the CohnReznick Capital,

LLP to CohnReznick LLP is “**less than 1%.**” (*Id.*) This nominal amount **has no bearing on the day-to-day operations at CohnReznick, LLP**, the accounting firm. Mr. Lines’s impact studies are **performed without any input, review, or comment from anyone at CohnReznick Capital, LLP** and Mr. Lines is not aware of anyone in the appraisal team who has a complete list of any clients of the capital group. (*Id.*)

Further, Ms. Clay’s own 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. *In re Tymochtee Solar, LLC*, Case No. 21-04-ELBGN, Opinion, Order, and Certificate (Mar. 17, 2022) at 41; and *In re AEUG Union Solar, LLC*, Case No. 21-1405-EL-BGN, Opinion, Order, and Certificate (Feb. 17, 2022) at 34. She has also previously expressed that solar developers utilize such agreements to limit local opposition to solar farms. (*Id.* at 1141.) Further examples of her bias include her beliefs that Teflon film from panels and zinc from panel supports can contaminate the soils and kill microbes in the soil and that solar projects can contribute to erosion. (Tr. Vol. V at 1134-35.) Overall, CGA’s claims of bias are merely a smokescreen to distract from the CohnReznick report’s finding: proximity to a solar project does not affect a home’s value.

5. Greene County’s Criticisms of the CohnReznick Report Fall Short

a. Greene County Seeks Data that is not Available

Greene County’s criticism about the CohnReznick report is that it does not provide an “apples-to-apples” comparison. (Greene County Br. at 13.) As Mr. Lines testified, however, **few comprehensive analyses** about the effect of solar projects on adjacent homes **exist**. (Kingwood Ex. 1, Appx. F at 12.) As of the date of the CohnReznick report, there existed one study conducted

by an appraiser, two academic studies, and one study by the Chisago County (Minnesota) Assessor's Office. (Kingwood Ex. 1, Appx. F at 12-13.) Further, a review of proposed, under construction, and existing Ohio solar projects indicates there is not enough reliable sales data to prepare a paired sales analysis focusing only on this state. (Kingwood Ex. 1, Appx. F at 4.) Importantly, out of the 11 projects studied in the CohnReznick report, **almost half of them (five)** would be considered utility-scale projects, if sited in Ohio. (*Id.* at 2-3.) Consequently, the CohnReznick report provides adequate, available data for the Board to conclude that adjacent homes around the Kingwood Solar Project will not suffer a decline in value as a result of the Project.

Greene County's other criticism of the CohnReznick report also falls short. Greene County claims the report does not adequately compare the characteristics of the Project Area (which is agricultural and contains a low-density of housing). (Greene County Br. at 13-15.) This is not true. **Eight** of the projects analyzed are situated on areas comprising of agricultural and/or rural land (along with other characteristics). These include: the North Star Solar Farm, Innovative Solar 42, Rutherford Solar Farm, Lapeer Michigan Solar Projects (two separate projects but analyzed together), Woodland Solar Farm, Dominion Indy Solar Farm III, Barefoot Bay Energy Center, Miami-Dade Solar Energy Center. (Kingwood Ex. 1 at Appx. F at 2-3.)

Importantly, the Board already has **recent property sale information from Ohio** that demonstrates proximity to solar projects do not cause a corresponding decline in property value. As explained above, **four properties in the Project Area have sold at market price** despite public knowledge of the Project Area (3373 Harbison Road, 2318 Stevenson Road, 2681 Harbison Road, and 3051 Harbison Road). (Kingwood Ex. 105 at 9; Tr. Vol. IV at 925-26, 929-30.)

Additionally, as Mr. Lines testified, while enough home sales data around Ohio solar projects does not exist for a paired sales analysis, preliminary data indicates that at least one operational solar project has not impacted adjacent property values. Two operational projects in this state include the 320 MW Hardin Solar project (first phase), being developed by Invenergy, and the 200 MW Hillcrest Solar project, developed Innergex. The 150 MW first phase of the Hardin Solar project was placed in operation in 2021; however, due to its recent completion date, at the time of Mr. Lines's direct testimony, there were no homes that sold after its completion that could be analyzed in a paired sales analysis. (Kingwood Ex. 9 at 7.)

For the Hillcrest Solar project, which became operational in 2021, at the time of Mr. Lines's written direct testimony, there were no home sales adjacent to the Project boundary. (*Id.* at 7.) However, there were approximately **three home sales** nearby to the Project boundary that sold between late January 2020 (start of construction) and the date of Mr. Lines's written testimony. (*Id.*) Each of these homes sold **during normal marketing time of 30-90 days** on market and **sold at list to sale price discounts of -2.2% (below) to +12.6% (above list)**. (Kingwood Ex. 9 at 7.) Despite not being able to complete a paired sale analysis, due to the proximity of these homes, Mr. Lines concluded that the Hillcrest Solar project has not had an impact on property values in the local area. (*Id.* at 7-8.) Overall, while a paired sales analysis study cannot yet be completed for only Ohio projects, enough property sales data exists for the Board to be able to conclude that homes located in proximity to the Project will not decline in property value.

b. Project Setbacks are Within the Range Studied in the CohnReznick Report

Greene County makes several arguments regarding the Project's proposed setbacks, but refuses to acknowledge that the Project's current proposed setbacks are well within the range identified in the CohnReznick report and only 30 feet different from what is recommended in the

Perspectives 2020 amendment. Greene County mentions that the North Star Solar project's average distance from panels to surrounding improvements is 325 feet, perhaps to draw an unfair comparison to the Project's setbacks. (Greene County Br. at 13-14.) However, through Joint Stipulation Condition 4, the Project has proposed a **minimum 250 feet** from Project fence line to non-participating residences. (Kingwood Ex. 7 at 3-4.) This is a substantial increase over the 25-foot setback originally proposed in the application. (*Id.*) Additionally there will be a minimum 20 feet distance between the fence line and any panels, which **increases the minimum setback to at least 270 feet**. (Tr. Vol. I at 74.) Consequently, the Project's setback is different from the North Star project by only 55 feet.

Further, Greene County places great emphasis on the Perspectives 2020 amendment which requires setbacks from road rights-of-way and parcel lines of a minimum of 300 feet for solar installations. (Greene County Br. at 8-10.) Again, as currently proposed, the Project's setback from non-participating parcels is only **30 feet different** from what is proposed in the Perspectives 2020 amendment. Further, the Project is fully compliant with the amendment with regard to its setback of a minimum of 300 feet from the public right-of-way to the Project fence line for OH-72 and Clifton Road on the eastern portion of the Project through Condition 37 near Clifton Gorge. (Jt. Ex. 1 at 11.) In any case, as fully discussed in Section V(C), this amendment is not applicable to the proposed Project because R.C. 4906.13.

More importantly, the Project's setback is well within the range of setbacks for the 11 projects which were analyzed by CohnReznick in its report. The report analyzed average distances **from project panels to residential lots** (ranging from 110 feet to 675 feet) and **average distances from project panels to houses** (ranging from 180 feet to 750 feet). (Tr. Vol. II at 403; Kingwood Ex. 1, Appx. F at 112.) And, CohnReznick's report concluded adjacent homes (or test area sales)

were not adversely affected by their proximity to the solar farms. Here, the proposed setbacks will be calculated **from the Project fence line to non-participating residences**, and it follows that the actual setbacks to most non-participating residences will be **greater than 250 feet**. (Jt. Ex. 1 at 11; Tr. Vol I at 76.) Consequently, the Board should not heed Greene County’s criticisms and find that adequate setbacks have been proposed here.

6. Cedarville Township’s Concerns About Housing Density is Adequately Addressed

Cedarville Township opposes the Project because the housing density in this area is allegedly three times the average density of other Ohio solar projects located in southwest Ohio, but CohnReznick’s report adequately addresses many of the township’s concerns. (Cedarville Br. at 8.) Initially, Kingwood notes that Jeff Ewry, a Cedarville Township Trustee, presented the population density statistic in his direct testimony and also conducted the underlying analysis in support of this statistic. (Cedarville Ex. 1 at 5, Ex. F at 2.) Exhibit F attached to his testimony lists 15 solar projects located in southwest Ohio. (*Id.*) However, Mr. Ewry did not employ a specific boundary in his analysis of what constitutes southwest Ohio. (Tr. Vol. VI at 1515.) He also did not know what counties comprise southwest Ohio and only “kind of took the quadrant southwest of Columbus.” (*Id.* at 1516.) Consequently, it is unknown if the population density around the Project Area is actually three times the average density of other Ohio solar projects located in southwest Ohio. In fact, other intervenors appear to argue the exact opposite; that the Project Area is quiet and rural, with a low-density of single-family homes. (*See, e.g.*, CGA Br. at 8, 59; Greene County Br. at 15; Miami Br. at 4; and Xenia Br. at 4-5.)

In any case, the CohnReznick report considered projects **adjacent to residential development** and found **no corresponding property value decrease**. (Kingwood Ex. 1, Appx. F at 2-4.) Such examples include:

- Innovative Solar 42 (utility-scale): surrounding uses consist of agricultural land, forests, and single-family homes
- Rutherford Solar Farm (utility-scale): surrounding uses consist of agricultural land, vacant land, and single-family homes
- Elm City Solar Facility: surrounding uses consist of forest, industrial, vacant, and single-family homes
- Shoreham Solar Commons: surrounding uses primarily consist of single-family residences
- S-Power Shoreham Solar: surrounded primarily by single-family residences
- Dominion Indy Solar Farm III: surrounding uses consist of agricultural land to the east, west and south, and a single-family subdivision to the north

Consequently, based on the record evidence, the Board should not be persuaded by Cedarville Township's argument regarding population density.

7. The Board Has Relied on Mr. Lines's Analysis Before and Should do so Here

Mr. Lines's testimony has been previously accepted and relied on by the Board in **seven proceedings**. (Kingwood Ex. 9 at 2-3; Tr. Vol. II at 365.) These include:

Case Number	Proceeding	Accepted by the Board?
18-1578-EL-BGN	Alamo Solar I	Yes
18-1579-EL-BGN	Angelina Solar I	Yes; relied upon in Opinion and Order ¹⁰
19-1823-EL-BGN	Big Plain Solar	Yes
20-972-EL-BGN	Yellowbud Solar	Yes; relied upon in Opinion and Order ¹¹
20-1380-EL-BGN	Ross County Solar	Yes; relied upon in Opinion and Order ¹²
20-1405-EL-BGN	AEUG Union Solar	Yes

¹⁰ *In re Angelina Solar I, LLC*, Case No. 18-1579-EL-BGN, Opinion, Order, and Certificate (June 24, 2021), at ¶ 288.

¹¹ *In re Yellowbud Solar, LLC*, Case No. 20-972-EL-BGN, Opinion, Order, and Certificate (Feb. 18, 2021), at ¶ 69.

¹² *In re Ross County Solar LLC*, Case No. 20-1380-EL-BGN, Opinion, Order, and Certificate (Oct. 21, 2021), at ¶ 133.

20-1762-EL-BGN	Sycamore Creek Solar	Yes
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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. Mr. Lines has 19 years of real estate appraisal experience, has completed over 25 property value analyses, and has testified over 100 times about the potential impacts of solar projects on property values. (Kingwood Ex. 9 at 1, Tr. Vol. II at 366-67.) Unlike Ms. Clay, Mr. Lines routinely updates prior studies. (Tr. Vol. V at 1157-58; Kingwood Ex. 1, Appx. F at 15-16, 19). Mr. Lines also confirms results of studies with market participants (e.g. appraisers, brokers, developers, county and township assessors, etc.). (Kingwood Ex. 1, Appx. F at 3, 105; Kingwood Ex. 9 at 6-7.) In sum, the Board should rely on Mr. Lines’s testimony, **as it has done in many other proceedings**, and find that the Project will have no impact on local property values.

G. The Project’s Setbacks are Protective

CGA claims the proposed setbacks are inadequate and does not comply with R.C. 4906.13(A)(3); however, initially, Kingwood would note that **CGA is relying on inaccurate facts** to make that contention. First, CGA argues that the setback from a public road is only 25 feet. (CGA Initial Br. at 21.) This is false. Mr. Stickney testified that “the universal Project fence line setback from the public roads edge has been increased from 30 feet to 50 feet.” (Kingwood Ex. 7 at 17; Jt. Ex. 1 at 11.) Notably, Kingwood has also increased other roadway setbacks: minimum of **300 feet** from the public right-of-way to the Project fence line 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 fence line for Clifton Road on the western portion of the Project. (Jt. Ex. 1 at 11.) In fact, these revised setbacks were a direct result of extensive negotiations between Kingwood and the intervenors. (Kingwood Ex. 7 at 2.)

Next, CGA argues that the Project could be constructed as near as 25 feet to neighbors' yards and land. (CGA Initial Br. at 22.) This is misleading. Kingwood has committed to at least **250 feet** between non-participating residences and the Project's fence line and **500 feet** between non-participating residences and inverters. (Jt. Ex. 1 at 4.) Additionally, Mr. Stickney explained that there will be an additional setback distance of at least a minimum of 20 feet between solar panels and the Project fence line, providing a total setback between panels and a non-participating residence of at least 270 feet. (Tr. Vol. I at 76.)

Overall, the increased setbacks from roads and non-participating residences mitigate any potential viewshed of the Project from neighboring residences, traveling tourists or vehicle passengers. (Kingwood Ex. 107 at 13-14.) The proposed setbacks will also 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.*) Further, the setbacks on the eastern (OH-72 and Clifton Road, minimum of 300 feet from the public road right-of-way) and western portions of the Project (Clifton Road, minimum of 200 feet to the Project fence) will reduce views of the Project on routes traditionally taken by tourists driving from the Historic Clifton Mill towards Cedarville and the entrance to the 4-H Camp Clifton. (Kingwood Ex. 7 at 17-18.) Consequently, CGA's arguments misstate the record and the Board should not rely on these claims made by CGA.

Greene County, Cedarville Township, and In Progress all claim the Project's setbacks do not comply with the amendment to the original land use plan adopted by Greene County, "Perspectives 2020: A Future Land Use Plan for Greene County." (Greene County Br. at 9; Cedarville Br. at 8; In Progress Br. at 4.) However, pursuant to R.C. 4906.13, local zoning regulations are not applicable to the Project. Notably, Miami Township Trustee Don Hollister

admitted that any local zoning is not applicable to the Project. (Tr. VI at 1466-67.) Despite this fact, the Project complies with the amendment with regard to the enhanced setbacks on the eastern and western portions of the Project along OH-72 and Clifton Road. (Kingwood Ex. 7 at 18.)

Additionally, as explained in Kingwood's initial brief, it certainly appears that the portions of the amendment, which was passed on August 26, 2021, several months after Kingwood filed its application (April 16, 2021) and served a copy of the application to local officials (June 21, 2021), were designed to render the Project unfeasible and sway the Board. (Initial Br. at 21.) Specifically, two of the amendment provisions, a one-mile buffer from the Little Miami River and a universal 300-ft setbacks from all roadways and property boundaries, would eliminate approximately 1,000 acres of the Project Area. (Kingwood Ex. 107 at 5.) That would effectively kill the Project which as currently designed will occupy approximately 1,200 acres within the approximately 1,500-acre Project boundary. (*Id.* at 13.) That explains why the amendment was passed in August 2021.

Finally, the Board accepted **similar (and shorter) setback distances** in other solar proceedings. *See, e.g., In re Clearview Solar I, LLC*, Case No. 20-1362-EL-BGN, Opinion, Order, and Certificate (Oct. 21, 2021), at ¶ 87 (setbacks of 25 feet to the public road right-of-way; 25 feet from the property line of any non-participating parcel; 25 feet to any waterbody or wetland; 150 feet to a non-participating home; and 500 feet between an inverter and a non-participating home) and *In re Fox Squirrel Solar, LLC*, Case No. 20-931-EL-BGN, Opinion, Order, and Certificate (July 15, 2021) at ¶ 70 (minimum setback of 100 feet from solar equipment to a non-participating property line; a minimum setback of 200 feet from solar equipment to a non-participating residential structure; and a 100-foot setback from its solar equipment to a road right-of-way). Additionally, in this proceeding, Staff has identified no concerns with the enhanced setbacks. Furthermore, Staff had originally suggested a setback of 30 feet from the Project fence line to the

public roads edge line. (Staff Ex. 1 at 40, 53.) As noted above, Kingwood not only heeded this suggestion but enhanced this particular setback to 50 feet.

Overall, the Board should recognize the setbacks proposed for this Project are adequate to minimize impacts and similar to setbacks approved by the Board in **other proceedings**. Consequently, any arguments noting the inadequacy of these setbacks should be disregarded.

H. Visual Impacts will be Localized and Offset with Screening

The Visual Impact Analysis (“VIA”) prepared for this Project (submitted as Appendix Q to the application) determined the Project **will not be visible from any of the visually sensitive areas** (e.g. recreational areas, scenic resources, resources of historic significance, etc.) in its surroundings. (Kingwood Ex. 1, Appx. Q at 24, 31, 38.) The VIA indicated visibility of the Project will generally be concentrated to the open fields located immediately adjacent to the Project, including individual non-participating residences in the immediate proximity, and from the local roads that extend through and immediately around the Project Area. (Kingwood Ex. 1, Appx. Q at 31, 38.) The Project’s relatively modest visual impact is 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 345-kV and 138-kV electric transmission structures** that extend throughout the Project Area. (Tr. Vol. II at 261, 355; Kingwood Ex. 8 at 13.) Further, as explained below, enhanced screening proposed by Kingwood will further mitigate any visual impacts. Consequently, CGA’s misleading arguments, fully discussed below, including poorly designed simulations, should be disregarded by the Board.

1. The Project is Not Visible from Tourist Attractions

CGA misrepresents to the Board that the Project is potentially visible from the public recreational areas at Clifton Gorge, John Bryan State Park, the Little Miami Jacoby Road state

route access, the Upper Great Scott Trail, and the Glen Helen Natural Area. (CGA Br. at 24.) The Visual Impact Analysis (“VIA”) conducted for the Project notes that the modeling tool utilized for the Project is “conservative and is expected to overstate the potential for visibility” and is only a “first step of review.” (Kingwood Ex. 1, Appx. Q at 4, 6.) The report further notes the modeling tool “is a screening level review and **not realistic**, as considerable vegetation and other features exist that would screen or block line-of-sight views toward the Project.” (*Id.* at 4.) As Ms. Gresock testified, additional investigation by Haley & Aldrich, Kingwood’s primary consultant, revealed that all these tourist attractions are surrounded by existing dense vegetation and will be screened from any view of the Project. (*Id.* at 8-10; *see also* Tr. Vol. II at 270.) Haley & Aldrich’s findings have been confirmed by Ms. Amy Kramb, an architectural historian from Kramb Consulting LLC with 25 years of experience. (Kingwood Ex. 109, Ex. A at 23-24.) Even CGA’s own witness, Susan Jennings, agreed that the Project would not be visible from nearby recreational areas. (Tr. Vol. VI at 1373.) Consequently, the Board should accept the results of the VIA.

2. CGA’s Argument Regarding the Project’s View from Non-Participating Homes is Misleading

Evidence in the record does not support CGA’s contention that 145 non-participating homes within 1,500 feet of the Project will have “clear views” of the Project. (CGA Br. at 24.) The Board should once again turn to the Visual Impact Analysis, which states the “visibility of solar panels from distances greater than 1,000 feet will generally result in limited visual impacts; most non-participating viewers surrounding the Project would be approximately this far from viewed arrays.” (Kingwood Ex. 1, Appx. Q at 31.) **This measurement is from panels to residences**; though CGA appears to allude it is from the Project boundary to residences. Further, due to an increased setback commitment from Kingwood (250 feet between non-participating residences and the Project’s fence line and 500 feet between non-participating residences and

inverters), visual impacts will be further mitigated from neighboring residences, travelling tourists, or vehicle passengers. (Jt. Ex. 1 at 4; Kingwood Ex. 107 at 12-13.)

Further, simulations presented by CGA in its initial brief, purportedly to demonstrate views of the Project from non-participating residences, including those located on elevated land, are misleading. During cross-examination, Dr. George Landon, the creator of these simulations, admitted he did not use panel locations from the Project layout and the simulations show the panels closer to his home. (Tr. Vol. IV at 738-39.) Exhibit H, a Landon simulation included in the CGA initial brief, attempts to show a view looking to the west from the Landon home. (CGA Br. at insert after pg. 33). This simulation **does not accurately depict** the panel layout, which **will be located further from the Landon home than depicted in the simulation**. (Tr. Vol. IV at 746; Kingwood Ex. 25.) The same is true for Exhibit J, another Landon simulation included in the CGA initial brief, which attempts to portray views north/northwest from the Landon home. (CGA Br. at insert after pg. 33; Tr. Vol. IV at 746.)

Perhaps the biggest defect in these “simulations” is that they **do not include landscaping** proposed by Kingwood. (Tr. Vol. IV at 744, 746, 748.) Dr. Landon admitted he did not review any of the screening proposed by Kingwood, though he knew Kingwood has proposed screening for his residence. (*Id.* at 745, 754.) The lack of screening in the simulations provides an incomplete picture of what the Project will actually look like from non-participating residences. As the Board is aware, Kingwood has committed through the stipulation 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.) As it now stands, a large portion of the Project will either be screened by natural buffers or proposed

screening. (*Id.*) Moreover, the current Project layout has been reduced by approximately 300 acres. (Kingwood Ex. 18, Attach. A; Kingwood Ex. 107 at 13.)

Further, pursuant to Condition 16, the Landscaping Plan proposed by Kingwood has to consider the Project's visual impacts on a non-participating residence with a direct line of sight to the Project Area at any time of the year. (Jt. Ex. 1 at 5.) 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.) Consequently, the Landscaping Plan will reduce visual impacts to non-participating residences and the Board should disregard the Landon simulations.

3. Kingwood's Simulations were Appropriately Conducted

Initially, Kingwood notes that CGA has waived any arguments about Kingwood's alleged non-compliance with Ohio Adm.Code 4906-4-08(D)(4)(e), as further explained in Section IV. Additionally, CGA's argument that Kingwood did not provide appropriate simulations fails because it mischaracterizes Ohio Adm.Code 4906-4-08(D)(4)(e). This rule requires an applicant to:

Provide photographic simulations or artist's pictorial sketches of the proposed facility **from public vantage points that cover the range of landscapes, viewer groups, and types of scenic resources found within the study area.** The applicant should explain its selection of vantage points, including any coordination with local residents, public officials, and historic preservation groups in selecting these vantage points.

CGA appears to argue that Kingwood has flouted this rule by not providing simulations for every possible viewer group. (CGA Br. at 29-31.) **That is not what the rule requires.** Instead, the rule requires the applicant to provide simulations (or sketches) of the proposed facility from **public vantage points** that cover **a range of landscapes, viewer groups, and scenic resources** found in the Project Area and provide an explanation for the selections. Ohio Adm.Code 4906-4-08(D)(4)(e). And, that is exactly what Kingwood did:

Viewpoint	Explanation
Viewpoint 1 – Clark Run Road	Represents a local road populated by several non-participating landowners in an area where solar panels are proposed along both sides of Clark Run Road. The photograph is taken approximately 375 feet from the location of the closest array. (Kingwood Ex. 1, Appx. Q at 25.)
Viewpoint 2 – Clifton Road 4	Represents a location central to the Project Area and potential viewers include travelers driving along Clifton Road and residents with potential views . The photograph is taken approximately 2,800 feet northwest from the location of the closest array. (<i>Id.</i> at 26-27.)
Viewpoint 3 – Clifton Road 2	Represents a western portion of the Project Area. The closest array is approximately 1,000 feet southeast of the viewer, with the more distant panels located 1,300 feet south of the viewer. (<i>Id.</i> at 27-28.)
Viewpoint 4 – Camp Clifton	Represents Clifton Road at its intersection with one of the entrances to Camp Clifton, looking southeast toward the Project Area. Although most of Camp Clifton lies amongst woody vegetation which will obscure views of the Project, this location was selected as representative of the most direct view of the Project from this recreational resource. Additionally, a residence is located just outside of the photograph to the west. From this viewing location, the closet panels would be approximately 400 feet away. (<i>Id.</i> at 28.)
Viewpoint 5 – Route 72	Represents one of the more heavily traveled roads surrounding the Project Area. Represents travelers along the road and potential views from residences located in the vicinity . (Kingwood Ex. 1, Appx. Q at 29.)
Viewpoint 6 – Harbison Road Center	Reflects conditions along a local road where nonparticipating residents will have views of the Project . While many locations along this road have existing vegetative screening, this location was selected for its relative openness. This view is similar to views that would be experienced at locations along other local roadways, such as Tobias Road and Larkins Road. (<i>Id.</i> at 29-30.)
Viewpoint 7 – Harbison Road North	Reflects conditions along a local road where nonparticipating residents will have views of the Project . While many locations along this road have existing vegetative screening, this location was selected for its relative openness. (<i>Id.</i> at 30.)

Based on the results of the VIA, the testimony from Ms. Gresock and Ms. Kramb, as well as additional mitigation proposed through the Joint Stipulation, the Board has adequate evidence to determine that the Project will have minimal visual impact.

4. The Board has Approved Similarly Shaped Projects

CGA argues the Project has an “irregular and irrational” shape, but this contention is ludicrous because the Board regularly approves similarly shaped Projects. (CGA Br. at 23.) In fact, CGA cannot point to a single case where the Board approved a neatly organized “square or rectangular” shaped Project that CGA demands. (*Id.*) The Board is aware that solar projects are designed after contemplating various constraints, including site accessibility, landowners willing to lease land, proximity to existing electrical infrastructure, and minimizing impacts on sensitive environmental resources. (Kingwood Ex. 1 at 18-20.) The Board’s rules contemplate this. Ohio Adm.Code 4906-4-04(B)(1) (directing the applicant to provide a constraint map showing setbacks from residences, property lines, utility corridors, public rights-of-way, and other design constraints). (*See also* CGA Ex. 12, Ex. L at 2, depicting the Hardin Solar project’s non-rectangular shape). Consequently, CGA’s argument about the shape of the Project is baseless.

5. The Screening Proposed by Kingwood Adequately Protects Non-Participating Residences’ Views

CGA also argues that the landscaping proposed for this Project will be ineffective because of the Project’s shape. But the Board has previously approved **a similar landscaping condition as the one proposed here**. *See, e.g., In re Yellowbud Solar, LLC*, Case No. 20-972-EL-BGN, Opinion, Order, and Certificate (Feb. 18, 2021), ¶ 66 (13); *In re Fox Squirrel Solar, LLC*, Case No. 20-931-EL-BGN, Opinion, Order, and Certificate (July 15, 2022), ¶ 81 (13); and *In re Union Ridge Solar, LLC*, Case No. 20-1757-EL-BGN, Opinion, Order, and Certificate (Jan. 20, 2022), ¶ 97 (14). As CGA noted in its initial brief, Kingwood’s commitment to Condition 16 of the Joint

Stipulation filed on March 4, 2022 is **significant**. Through this condition, Kingwood is committing to an additional 4,000 feet of vegetative screening (47,000 linear feet total). (Kingwood Ex. 18 at 1-2; Kingwood Ex. 18, Attach. A; Jt. Ex. 1 at 5, Condition 16 and Attach. 1.)

Further, Condition 16 of the Joint Stipulation ensures that Kingwood will implement the enhanced Landscaping Plan attached to the Stipulation. (Jt. Ex. 1 at 5, Condition 16 and Attach. 1.) The condition allows Kingwood to update the Landscaping Plan as a result of communication with non-participating property owners. (Jt. Ex. 1 at 5-6.) 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.) 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. (Kingwood Ex. 18 at 3.) The Board should note Kingwood's landscaping expert, Andy English, based on his 26 years of prior landscaping experience, testified mitigation strategies of this type have been successful in reducing and minimizing visual impact. (Kingwood Ex. 17 at 1; Kingwood Ex. 18 at 4.)

CGA next claims the Project will be visible because of gaps in the screens, but Mr. English, a master of landscape architecture, explained that each screening type proposed by Kingwood provides a "good dense screen." (Tr. Vol. III at 652.) Mr. English also explained that an evergreen wall of vegetation for screening purposes would be out of character in the Project Area and draw attention to itself. (*Id.* at 651-52.) The vegetative screening proposed comprises of three landscape modules and each relies on certain vegetation types (e.g. the light screening is comprised of evergreen species). (*Id.*) This 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.*)

Notably, Board has **not previously found mere complaints about “visual blight” compelling**. *See, e.g. In re Angelina Solar I, LLC*, Case No. Certificate (June 24, 2021) at ¶ 136, 153 (not relying on local intervenor groups’ argument about “visual blight” and finding the applicant had adequately addressed the visual impact of the project through its visual resource assessment). Consequently, the Board should not place any emphasis on CGA’s arguments here regarding the visual impact of the Project, including the erroneous simulations produced by Dr. Landon.

Coordination with non-participating landowners will also allow Kingwood to adjust buffers and landscaping as appropriate, which is contemplated in Condition 16 of the Joint Stipulation. (Kingwood Ex. 8 at 14; Jt. Ex. 1 at 5-6.) In fact, the revised project layout, with increased setbacks and 4,000 feet of additional screening, is directly responsive to concerns raised by other parties. (Kingwood Ex. 7 at 2.) The Board has previously determined this condition adequate for the mitigation of visual impacts for other similarly shaped projects, and should do the same here. Further, the Board should recognize Kingwood’s additional landscape screening commitments will further mitigate any issues.

In sum, contrary to CGA’s arguments, Kingwood has thoroughly investigated and considered the minimal visual impacts of the Project, and proposed screening to effectively mitigate these impacts. On the other hand, the CGA Intervenors will not be appeased by any amount of screening, setbacks, or good faith negotiation. Instead, they will protest any planned improvement on neighboring property, even if that property does not belong to them. For example, Jenifer Adams testified she did not want a subdivision built near her because she prefers her natural views. (Tr. Vol. IV at 823.) Karen Mossing has opposed the Project since 2020 and will oppose it as long as it is in Greene County. (Tr. Vol. IV at 908.) And, Angie Hanna testified that as long

as the Project is proposed in Greene County, she will oppose the Project. (Tr. Vol. V at 1164.) Consequently, the Board should not give any credence to the any of the visual impact arguments raised by CGA.

I. The Project is Properly Designed for Severe Weather Events

As Alex Roedel testified, the Project does not pose a greater risk due to tornados than other forms of development in Greene County, nor does Greene County have a higher tornado risk than other areas of southwestern Ohio. (Tr. Vol. III at 626-27; 631.)

This Project was designed to adhere to ASCE 7-16 design codes and are designed to withstand wind speeds of at least 105 miles per hour (mph). (Kingwood Ex. 16 at 7.) The Project will have several design features to minimize damage during severe weather events: the ability for the panels to go into a 60-degree defense position in high winds; on-site anemometer wind sensors to identify conditions when the trackers should go into wind stow defense position; dampeners to reduce the effects of high winds; and the use of standard components, such as module fasteners, which are rated to exceed the 105-mph design. (Kingwood Ex. 16 at 5; Tr. Vol III at 600.)

Mr. Roedel testified that similar installations have withstood wind events in excess of 130 mph without damage. (Kingwood Ex. 16 at 5-6.) Furthermore, in those limited instances where severe wind has damaged solar installations, the damage is typically localized, without panels being completely ripped off in a way that presents a danger to adjacent properties. (Tr. Vol III at 613.) The Project does not present a unique tornado risk.

Multiple intervenors raised concerns about the risk of tornadoes in Greene County. (*See, e.g.,* Cedarville Township Ex. 1; CGA Ex. 5 at 27; CGA Ex. 8 at 10.) Yet none of those intervenors provided expert testimony showing that Greene County poses a unique risk of tornadoes. In fact, the only expert that testified in these proceedings was Mr. Roedel. (Kingwood Ex. 16, Tr. Vol III

at 586-636.) Mr. Roedel testified that Greene County has a **lower risk of tornadoes than other parts of Ohio and the country**. (Tr. Vol. III at 626-27, 631.) Greene County has had an estimated 17 tornadoes since 1950. (Tr. Vol III at 620, 631.) This is approximately half as frequent as the Ohio county with the most tornadoes, which had 33 tornadoes since 1950. (Tr. Vol III at 631.) Moreover, Ohio in general has fewer tornadoes than other areas of the country, particularly North Texas, Oklahoma, and Kansas, which are commonly referred to as Tornado Alley. (Tr. Vol III at 627, 631-32.) Mr. Roedel testified that Nextracker has trackers installed in those areas. (Tr. Vol III at 627.)

Overall, the Project is appropriately designed to withstand severe weather and, although Greene County does have a history of tornadoes, other areas in Ohio and many other places in the country have greater risks. The Project poses no more of a risk to the public than other buildings or even existing solar facilities in the area, whether a large generation facility permitted by the Board in another county with higher tornado risk, an array installed by a college, such as Cedarville University's array near the Project site, or solar panels installed on a business or residence throughout Greene County.

J. CGA's Claims that Kingwood is an Inexperienced Operator have no Merit

Since its founding in 2015, as Lendlease Energy Development ("Lendlease"), Vesper Energy ("Vesper"), Kingwood's parent company, has successfully commercialized more than 680 MW of solar projects in the United States. (Kingwood Ex. 6 at 2.) This includes the 80 MW Nestlewood Project in Ohio and other successfully operating projects in California, Texas, Connecticut, and Hawaii. (*Id.*) The company's current development pipeline represents three GW of renewable energy and energy storage projects around the country. (*Id.*) The mission of the original company, Lendlease, was purely the development of solar project assets. (Tr. Vol. I at

44.) The company went through a rebranding in 2020 and its current business model is to **develop, own, and operate** its own solar projects. (*Id.*)

Focusing on Lendlease's original business model, CGA claims that Vesper Energy is an inexperienced owner. (CGA Br. at 65.) However, as Mr. Stickney testified, "[t]here are a number of projects in the Vesper portfolio that are either in development, in pre-construction planning * * * or are in the early stages of construction." (Tr. Vol. I at 44.) Importantly, the Board has granted one of Vesper's Ohio projects, the Nestlewood Project located in Brown and Clermont Counties, a certificate. *In re Nestlewood Solar I LLC*, Case No. 18-1546-EL-BGN, Opinion, Order, and Certificate (Apr. 16, 2020). As of March 7, 2022, Vesper was preparing to go into construction activity on this project. (Tr. Vol. I at 208.) As such, any claims that Vesper does not have the experience to develop, construct, and operate this project are meritless and should not be considered by the Board.

VI. Adequate Information has been Presented Regarding 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))

CGA makes several claims about the Project's impacts on the local ecology and local waterbodies. It also points to alleged issues that could be created by the Project (noise and drainage). As demonstrated below, these arguments are meritless because Kingwood has adequately minimized Project impacts through the application or additional commitments made through specific conditions in the Joint Stipulation.

A. The Project will not have any Ecological Impacts

The record demonstrates that the Project will have a minimal adverse ecological impact. In addition to studies into the Project's impacts on surface waters, soil, and groundwater, the Applicant completed thorough investigations into the existing flora and fauna in the Project Area, with particular focus on threatened and endangered species. (*See generally* Kingwood Ex. 1 75-

91; Kingwood Ex. 1, Appx. M; Kingwood Ex. 1, Appx. N; and Kingwood Ex. 8.) In conjunction with the proactive steps the Applicant made to reduce or eliminate impacts, such as the avoidance of all wetlands, avoiding all permanent impacts to stream crossings, and siting the overwhelming majority of the Project on active agricultural fields, the net result of these studies clearly shows that the Project will have minimal ecological impact. (Kingwood Ex. 8 at 6-7, 10) This was also the conclusion by Staff after its review of the Project's potential impacts. (Staff Ex. 1 at 29.) As Staff wrote in the Staff Report: "This project would be expected to represent a reduced environmental impact when compared to the current land use of agricultural plant production." (*Id.*)

The Applicant's studies and investigations concerning the potential impacts on wildlife and plants were comprehensive and provided the Board with sufficient information to conclude that the Project represents the minimal adverse ecological impact. In its brief, CGA argues that the Applicant's desktop review to prepare for comprehensive field studies was deficient, since it was based primarily on the expert's existing knowledge of the ecosystems and location-specific consultations with the United States Fish and Wildlife Services and the Ohio Department of Natural Resources. (*See* CGA Brief at 38-42.) While CGA contends the ecological assessment was deficient, because it did not rely on an exhaustive literature search, CGA neither identifies what literature the Applicant should have consulted nor how the results of a literature search might have impacted the Applicant's extensive field surveys. (*Id.*)

CGA further argues that the Applicant's field surveys were "substandard" since they did not document every bird which might be observed near the Project Area during any season. (*Id.*) But such an argument cannot be supported. If CGA's interpretation of the rule—to list "the plant and animal species"—requires the Applicant to list every bird, then it would also require an

applicant to list every single species of mammal, reptile, amphibian, insect, invertebrate, tree, shrub, grass, and weed that exists anywhere within the Project area or within a quarter mile surrounding the Project area.¹³ (*See* Ohio Adm.Code 4906-4-08(B).) Clearly, such a detailed listing is unnecessary. Nor has such an exhaustive investigation been required for similar projects to which the Board has recently issued certificates. (*See, generally, In re AEUG Union Solar, LLC*, Case No. 21-1405-EL-BGN, Opinion, Order, and Certificate (Feb. 17, 2022) and *In re Union Ridge Solar, LLC*, Case No. 20-1757-EL-BGN, Opinion, Order, and Certificate (Jan. 20, 2022).) The Applicant's studies into the wildlife and plants in and near the Project Area were comprehensive, consistent with the rules, and provide sufficient information for the Board to determine the nature of the ecological impact.

Not only does the record show that the Project will have minimal ecological impacts, but they also show that the impacts are of similar magnitude to the impacts from other similar projects, which the Board has approved. *See, e.g., In re AEUG Union Solar, LLC*, Case No. 21-1405-EL-BGN; *In re Union Ridge Solar, LLC*, Case No. 20-1757-EL-BGN; and *In re Angelina Solar I, LLC*, Case No. 18-1579-EL-BGN. Just like many other solar projects for which the Board has granted certificates, this Project is located predominantly in active agricultural areas; will require minimal grading; will not require either the use of water or the discharge of wastewater for electrical generation; and will have groundcover in the areas between and under panels.

Furthermore, this Project will avoid all impacts to wetlands, will incorporate wildlife permeable fencing, will include pollinator-friendly plantings, and will contain proportionally more vegetative screening. (*See, generally, Kingwood Ex. 1 at 43-45; Kingwood Ex. 1, Appx. O at 4;*

¹³ CGA's argument is not, however, limited to listing every single species. CGA further argues that an exhaustive survey must occur in different seasons, since some species might only be present during spring migration. (*See* CGA Brief at 41.)

Kingwood Ex. 1, Appx. Q at 71; Kingwood Ex. 2; Kingwood Ex. 8 at 6, 10; Kingwood Ex. 17 at 3; Tr. Vol. III at 565.) Many of these commitments are memorialized in the Joint Stipulation in this case, and the language of those conditions are identical or similar to language used in the conditions included in previous Board Orders. (*See* Joint Ex. 1; *see also* Kingwood Brief at 64, 67.) Last, Staff not only stated that the Applicant determined the nature of the probable environmental impact, but also concluded that the Project would actually represent less of an environmental impact than the current use. (Staff Ex. 1 at 29-30 (“This project would be expected to represent a reduced environmental impact when compared to the current land use of agricultural plant production.”).)

Contrary to CGA’s claims, the Applicant’s ecological investigations were sufficient for the Board to determine that the Project represents the minimum adverse ecological impact.

B. The Project Incorporates Maximum Feasible Water Conservation Practices in Compliance with R.C. 4906.10(A)(8)

The Kingwood Solar Project inherently incorporates maximum water conservation measures, because it will use a *de minimus* amount of water during the construction and operation of the Project. (*See* Kingwood Ex. 1 at 45.) Unlike many other types of generation plants, the Project does not require any water for the normal operation. Therefore, the Project does not need any monitoring equipment; water pollution control equipment; federal, state or local permits; or any operational discharge. (*Id.*)

The only potential water required for the maintenance of the Project would be for the washing of the panels. (*Id.*; *see also* Kingwood Ex. 2 at 11.) The Applicant has estimated that the total annual amount of water used for the Project would be less than one gallon per acre per day; however, the actual use of the water might be less—or even zero—depending on the weather conditions. (Kingwood Ex. 2 at 11 (estimating annual water usage of 775 gallons per day on the

1,200-acre Project Area).) Staff, in its report, explicitly considered all this information and concluded that the Facility satisfies the statutory requirement to “incorporate maximum feasible water conservation practices.” (Staff Ex. 1 at 46, referencing R.C. 4906.10(A)(8).)

Despite Staff’s conclusion in its report, CGA argues in its brief that the Applicant has failed to comply with Ohio Adm.Code 4906-4-07(C)(3)(e) because the application does not include a detailed discussion of the Facility’s water conservation measures.¹⁴ (CGA Brief at 43.) CGA further contends that without that information, the Board lacks the necessary information to determine the nature of the Project’s environmental impact. Notwithstanding that CGA’s argument about rule compliance is untimely—as explained *supra* in Section IV—CGA’s argument is also disingenuous and unfounded. Ohio Adm.Code 4906-4-07(C) generally requires an applicant to provide information on compliance with water quality regulations, and Ohio Adm.Code 4906-4-07(C)(3) requires the Applicant to provide information on the water quality of the Project during the operation. *See* Ohio Adm.Code 4906-4-07(C) and Ohio Adm.Code 4906-4-07(C)(3). As explained in the application, the Project will comply with water quality regulations and will not require any permits for the operation of the Project. (Kingwood Ex. 1 at 45.) Moreover, as demonstrated in the hearing, the Project will not adversely impact the receiving streams of the Project Area or the Little Miami River. (*See, e.g.*, Kingwood Ex. 19 at 15-16.) Lastly, CGA failed to identify any water conservation measures (during either the hearing or the briefing) which the Applicant failed to consider to further conserve water.

¹⁴ Notably, CGA does not argue that the Applicant has failed to comply with R.C. 4906.10(A)(8), which explicitly references the water conservation measures. Instead, CGA argues that the information is necessary to determine whether the Project represents the minimum adverse environmental impact, presumably referencing R.C. 4906.10(A)(3).

CGA's argument lacks merit; the Applicant provided sufficient information for the Board to determine that the Project incorporates maximum feasible water conservation practices in compliance with both R.C. 4906.10(A)(3) and R.C. 4906.10(A)(8).

C. Operational Noise will not be an Issue and any Complaints can be Easily Addressed

Contrary to CGA's claims and as extensively discussed in Kingwood's initial brief, **operational noise from the Project will have a minimal impact on non-participating residences**. Further, as explained below, any operational noise issues can be effectively mitigated through post-construction noise controls. (Kingwood Ex. 102 at 2.) Finally, the Board has accepted routinely accepted the Leq + 5 standard for utility scale solar projects in Ohio, and the record supports doing the same in this proceeding. Accordingly, given the evidence in the record, the Board has more than adequate basis to find the Project will have minimal noise impacts.

1. The Board should not Rely Upon Mr. Rand's Hardin Solar Project Measurements

The Board should place no emphasis on CGA's position that solar projects are noisy because the measurements presented by Mr. Rand, CGA's noise expert, are inapplicable to the Project and not credible. The Hardin Solar project is unrelated to the Kingwood Solar Project and is **utilizing different equipment** than what is proposed for this Project. For example, these inverters are manufactured by a different company than what is being considered by Kingwood. (Tr. Vol. V at 950; Kingwood Ex. 1, Appx. J at 9-15.) Hardin Solar is also utilizing smaller rated inverters than what has been considered for this Project. (Tr. Vol. V at 970, 974-75.) Consequently, more would be required for the Hardin project. (*Id.* at 976.)

Mr. Rand's noise measurements were also suspect given that he took the measurements during active construction. The overall Hardin Solar project is comprised of several different phases. (*Id.* at 967-68; 1036-37.) Mr. Rand conducted his noise analysis during construction of

the Hardin Solar II phase of the project. (Tr. Vol. V at 1036-37.) The construction included pile driving and grading, which generate noise. (Tr. Vol. V at 978, 1075.) Construction noise was audible during Mr. Rand's analysis. (*Id.* at 978, 1075-1076.) In fact, Mr. Rand was not aware of the type of construction equipment that was operating in the area. (Tr. Vol. V at 1075-76.) He also did not know if any portable generators, which can produce tonal sound, were operating in the construction area. (*Id.* at 1076.) Overall, the way in which Mr. Rand conducted his measurements are unreliable.

While Mr. Rand states that he was able to discern the difference between noise emanating from the inverters from nearby construction noise by utilizing "trained listening," this is not a credible way to conduct an analysis of operational sound of any type of generation project. (Tr. Vol. V at 977.) Notably, Mr. Rand appears to have utilized maps for Hardin Solar III, which is separate from the Hardin Solar I project, to select his measurement locations. (Tr. Vol. V at 966-970.) As Mr. Rand admitted during cross-examination, the appropriate method to conduct a noise analysis is to measure operational sound without any background construction noise. (*Id.*) This is because inclusion of such noise can contaminate noise levels. (*Id.*)

The "analysis" conducted by Mr. Rand is also meager at best. It is comprised of **only two measurements of operational sound** from the Hardin Solar I project and one measurement of pile driving from the Hardin Solar II project. (Citizens Ex. 12, Ex. L.) These measurements were taken on **one day**, while construction on Hardin Solar II was ongoing. (Citizens Ex. 12, Ex. L; Tr. Vol. V at 1036-37.) Mr. Rand considers these one-time measurements a "study." (Tr. Vol. V at 949-50.) The Board should decline to place any emphasis on the "results" of Mr. Rand's one-time measurement of operational sound at another project with construction occurring at the same time.

Overall, Mr. Rand's flawed analysis cannot be considered by the Board as it is contaminated with construction noise, is not comprehensive, and involves equipment not considered for the Project. CGA's reliance on his measurements are misplaced.

2. Any Operational Noise Issue can be Adequately Mitigated Post-Construction

Importantly, the Board should recognize that both CGA and Kingwood's experts agree regarding the adequacy of post-construction mitigation of any operational noise. CGA glosses over the fact that its own expert, Robert Rand, testified that post-construction noise control will provide adequate mitigation. (Tr. Vol. V. at 954, 989-90; *see also* CGA Br. at 60.) CGA also ignores the fact that Kingwood's noise expert, Alex Odom, also testified that post-construction noise control can be easily implemented. (Kingwood Ex. 10 at 6.) 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 provided similar testimony, testifying that noise barrier walls can provide roughly 7 to 12 dBA noise reduction in sound levels for inverters and acoustical enclosures can reduce noise by 27 dBA.¹⁵ (Tr. Vol. V at 987.)

Mr. Odom has experience in post-construction noise mitigation for solar projects. (Tr. Vol. VIII at 1976.) Mr. Odom testified that **unlike a gas-fired power plant or wind farm, post-construction noise control**, as the ones described above, **can typically be applied easily to solar projects**. (Kingwood Ex. 102 at 2.) He noted that the concrete footings and equipment pads

¹⁵ Notably, Mr. Odom also 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.)

around the inverters and substation transformer could support a noise barrier wall to allow for easy post-construction mitigation. (*Id.*)

On the other hand, CGA believes post-construction noise control would be cost-prohibitive. (Tr. Vol. V at 1014; CGA Br. at 60.) But this belief is based on Mr. Rand's experience with power plants and not solar projects. (Citizens Ex. 12 at Ex. A.) The Board should place little emphasis on Mr. Rand's testimony, as Mr. Rand has never "done any mitigation for inverters for solar farms." (Tr. Vol. V. at 990.) And, as noted above, Mr. Odom has performed post-construction noise mitigation at solar farms, and testified that such noise controls can be easily applied after the Project is constructed.

3. The Board has Accepted the Leq + 5 Standard in Numerous Proceedings

The Board has previously approved a Leq + 5 dBA metric in operational noise conditions for other utility scale solar projects. (Kingwood Ex. 102 at 3); *see also In re AEUG Union Solar, LLC*, Case No. 20-1405-ELBGN, Opinion, Order, and Certificate (Feb. 17, 2022), ¶91 (16); *In re Tymochtee Solar, LLC*, Case No. 21-04-EL-BGN, Opinion, Order, and Certificate (Mar. 17, 2022) at ¶ 95 (26); and *In re Marion County Solar Project, LLC*, Case No. 21-36-EL-BGN, Opinion, Order, and Certificate (Nov. 18, 2021), at ¶ 95(21).

This standard, which is found in Ohio Adm.Code 4906-4-09(F)(2) and is applicable to wind turbine operational noise, states, in relevant part:

The facility shall be operated so that the facility noise contribution does not result in noise levels at any non-participating sensitive receptor within one mile of the project boundary that exceed the project area ambient nighttime average sound level (Leq) by five A-weighted decibels (dBA). During daytime operation only (seven a.m. to ten p.m.), the facility may operate at the greater of: the project area ambient nighttime Leq plus five dBA; or the validly measured ambient Leq plus five dBA at the location of the sensitive receptor.

Ohio Adm.Code 4906-4-09(F)(2)

Mr. Odom testified that the Board's wind turbine operational noise standard in its rules supports the use of an Leq + 5 design goal for this Project. Mr. Odom explained that while there are some differences between wind turbine noise and solar farm noise, human perception of hearing is best represented by the A-weighted sound levels. (Kingwood Ex. 102 at 3.) Mr. Odom also explained that while solar farms can be tonal, their tonal sounds are typically at frequencies in the audible range, which will be captured in A-weighted sound levels (dBA). (Kingwood Ex. 102 at 3.) Consequently, applying an Leq + 5 dB design goal for this Project is consistent with the Board's approach for wind farms and also consistent with the Board's approval of an Leq + 5 dB metric in operational noise conditions for other utility scale solar projects.

When applying an Leq +5 dBA requirement in certificates, the Board also consistently approves conditions to ensure proper mitigation of any noise issues. *See, e.g., In re Sycamore Creek Solar, LLC*, Case No. 20-1762-EL-BGN, Opinion, Order, and Certificate (Nov. 18, 2021), at ¶ 95(19). Similar conditions are proposed for the Project. For example, proposed Joint Stipulation Condition 31 will ensure that the Project will meet its noise design goals. This condition requires additional noise modeling or measurements to verify the Project sound levels when final equipment selections have been made. (Kingwood Ex. 10 at 8; Kingwood Ex. 102 at 2.) If Kingwood's noise modeling indicates that the final selected equipment exceeds the Project's design goals, then Kingwood would implement additional mitigation. (Kingwood Ex. 102 at 2; Jt. Ex. 1 at 31.) As Staff witness Mark Bellamy testified during the hearing, 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. VII at 1682.) Mr. Odom confirmed the same. (Tr. Vol. II at 466-67.) Consequently, using the Leq + 5 standard in this proceeding is consistent with past Board approach.

The Board should not be swayed by CGA's argument that L90 is an appropriate standard for noise emanating from solar projects. (CGA Br. at 59; Tr. Vol. V. at 1000-01.) As Mr. Odom explained, utilizing the L90 standard **will always produce a lower sound level** than the Leq standard when measuring ambient sound in a given area. (Tr. Vol. II at 447.) Leq is the measure of an average of **all sound energy** measured during an hour. (*Id.*) In contrast, the **L90 measures the quietest portion of the hour** which is exceeded 90% of the time. (*Id.*) Specifically, the L90 disregards spikes and even steady state sounds that may occur for a portion of the hour not in excess of 90% of the hour. (*Id.*) Such examples of steady state sounds include high level noises from traffic or agricultural equipment which are typically experienced during the day but not consistently throughout the day. (Tr. Vol. II at 448-49.) Simply put, the **L90 is an extremely conservative measure of background sound**. Moreover, by accepting the Leq + 5 standard, the Board has indicated that **some noise changes are acceptable**, as long as the changes are not higher than the existing average ambient Leq level by 5 dBA.

Further, Mr. Odom explained that it is **difficult to predict noise complaints** in a community as a result to noise. (Kingwood Ex. 102 at 4; Tr. Vol. VIII at 1972.) According to him, if increases over ambient level were a clear marker of how to predict complaints, it would be a more standardized criteria applied in different cases. (Tr. Vol. VIII at 1994.) For example, where the ambient level of noise is already low, such as 30 dBA, an increase of 5 dBA might not be as noticeable; however, an increase from 55 dBA to 60 dBA in an already noisy area may bring the noise level to an intolerable level. (*Id.* at 1980.) Consequently, the Board should accept the Leq + 5 standard in this proceeding as it has in the past in conjunction with the mitigation condition in the Joint Stipulation.

4. Mr. Rand has Little Experience Evaluating Noise from Solar Projects

Finally, Kingwood notes that CGA's noise expert, Robert Rand, has, at best, **meager experience in analyzing noise** emanating from a utility scale solar project. For example:

- Mr. Rand's only experience analyzing noise from a utility scale solar facility is from his visit to the Hardin Solar I project in 2021. (Tr. Vol. V at 947.)
- He has never been retained to work on any other solar project (other than the Kingwood Solar Project). (*Id.* at 948-49.)
- Mr. Rand has not conducted any research on the sound power output for inverters for utility-scale solar facilities. (*Id.* at 949.)
- He has not conducted any investigations into the sound power output of tracker motors. (Tr. Vol. V at 950.)
- He has not done any mitigation for inverters for solar farms. (Tr. Vol. V at 990.)
- He has never been inside the fence of a utility-scale solar facility. (*Id.* at 1070.)

On the other hand, Mr. Odom frequently works on environmental noise measurement and modeling in the energy sector, including solar projects. (Kingwood Ex. 10, Attach. A.) Of the two noise experts presented, the Board should find Mr. Odom more credible.

In sum, Mr. Odom's testimony, as well as the remainder of the record, supports the Board finding that there will be minimal impact from operational noise from the Project. The Board has previously approved this existing Leq + 5 dBA metric in operational noise conditions for various other utility scale projects. (Kingwood Ex. 102 at 3). Post-construction sound mitigation, if needed, will be easy to implement. (Kingwood Ex. 102 at 2.) Further, various commitments in the Stipulation will further work to minimize noise impacts. These include:

- An increased setback of 500 feet for inverters, which will reduce the operational Project noise experienced by non-participating residences. (Kingwood Ex. 11 at 3.)
- Joint Stipulation Condition 30, which will prevent the Project from producing more than 5 dBA of noise from the average ambient Leq level existing at each non participating residence. (Kingwood Ex. 10 at 8; Tr. Vol. II at 466-67; Jt. Ex. 1 at 9).

- Implementation of a complaint resolution program, submitted as Appendix E to the application, which will ensure that any complaints from the public, including noise, are addressed expeditiously. (Kingwood Ex. 1 at 32; Kingwood Ex. 1, Appx. E.) The program will be filed 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.) A list of all complaints and resolution status also has to be filed on the public docket quarterly through the first five years of operations. (Jt. Ex. 1 at 8-9.)

Consequently, the Project will have minimal noise impacts, contrary to CGA's general claim that the Project will be "noisy."

D. The Project will not Create Runoff or Drainage Problems in the Area

The Applicant has designed the Project to prevent or mitigate drainage problems caused by the construction and operation of the Project. First, the Applicant designed the Project in a manner that will minimize grading and earthwork. (Kingwood Ex. 1 at 16, 122.) Second, the Applicant has committed to providing pre- and post-construction runoff calculations to both the Greene County Department of Building Regulation and the Greene County Soil & Water Conservation District. (Joint Ex. 1 at 6). The Applicant will also submit detailed construction drawings for any necessary stormwater control measures. (*Id.*) Third, the Applicant has committed to incorporating applicable guidance for post-construction stormwater management controls that comply with Ohio EPA's October 2019 Guidance on Post-Construction Storm Water Controls for Solar Panel Arrays. (*Id.*) Last, the Applicant has committed to Joint Stipulation Conditions 33, 34, and 35 related to repairing drain tiles. (Joint Ex. 1 at 9-10). Notably, the conditions are more protective of the existing drainage infrastructure than those recommended by Board Staff in the Staff Report. (*See* Kingwood Br. at 83-84 and Ex. B.)

Despite these preventive measures, CGA argues in its brief that the Board does not have sufficient information to assess the Project's drainage impacts (CGA Br. at 60-64.) To support this, CGA mainly relies on two main arguments: 1) its own interpretation of Ohio Adm.Code 4906-

4-07(C) and 2) anecdotal information in the record that flooding issues already exist adjacent to and downstream of the Project Area. (*Id.*, see also CGA Ex. 1 at 8; CGA Ex. 2 at 4-5; CGA Ex. 8 at 3-5). As an initial matter, as discussed in more detail in Section IV above, any argument about failure to comply with Ohio Adm.Code 4906-4-07(C) is unfounded. The Board Staff previously determined that the Application was complete and CGA failed to object to that determination. Therefore, the Board should ignore any procedural argument about the information provided by the Applicant. CGA's argument about the existing drainage concerns are similarly groundless; the Applicant has done nothing at this time that would influence the existing drainage problems that CGA has entered into the record.

Furthermore, the anecdotal evidence that is in the record is unverified by any experts, is not documented by any hydrological models, and cannot be relied on by the Board. (*Cf* CGA Ex. 1 at 8; CGA Ex. 2 at 4-5; and CGA Ex. 8 at 3-5 (anecdotal reports of flooding by CGA members), *with* Kingwood Ex. 19 at 15; Kingwood Ex. 14 at 1, 5; Tr. III at 565 (Applicant's experts' opinions on the Project's anticipated impacts on drainage).) Ultimately, while CGA attempts to shift the responsibility for correcting any existing drainage issues onto the Applicant, such an argument is disingenuous. (*See generally*, CGA Brief at 60-63). Instead, the Applicant's duty is limited to minimizing impacts to downstream drainage caused by the Project. (*See* R.C. 4906.10(A).)

Moreover, Staff agrees that Applicant's commitments will minimize any potential drainage impacts that could be attributed to the Project. Based in part on its evaluation of the Applicant's commitments related to drain tiles, Staff found that the Project was unlikely to "pose a significant adverse impact to existing land use[.]"¹⁶ (Staff Ex. 1 at 33.) Further, the Applicant has designed

¹⁶ Note, this conclusion was reached before the Joint Stipulation was finalized and did not incorporate the additional commitments the Applicant has made to protect drain tiles, such as the current Stipulation Condition #33. (*See* Kingwood Brief, Ex. B.)

the Project to minimize drainage impacts. Mr. Waterhouse testified at the hearing that, in his expert opinion, the drainage from the Project will not be dissimilar from a farmed field with crops growing and should have superior drainage as compared to a fallow field. (Kingwood Ex. 14 at 1, 5; Tr. Vol. III at 565.) Similarly, Mr. Saunders testified that he “would expect post-construction stormwater flows to have superior drainage and runoff characteristics . . . when compared to an agricultural field[.]” (Kingwood Ex. 19 at 15.) In conclusion, the Project will not create or exacerbate drainage issues in or near the Project Area.

E. The Project will not Adversely Impact Groundwater, the Nearby Streams or the Little Miami River

The Applicant has provided substantial information demonstrating that it designed the Project to minimize impacts to groundwater, nearby streams and the Little Miami River. As an initial matter, the Applicant is avoiding all impacts to delineated wetlands and all permanent impacts to streams within the Project Area. (Kingwood Ex. 8 at 6; Kingwood Ex. 2 at 3.) Second, the actual Project construction will involve minimal grading or ground disturbance and the Applicant will comply with all applicable stormwater regulations. (Kingwood Ex. 19 at 11; Kingwood Ex. 1 at 42, 93.) Last, the Project will not discharge water or waste into streams or waterbodies during construction or operation of the Project. (Kingwood Ex. 1 at 8, 43-45.)

Despite the information provided by the Applicant, CGA argues in its brief that the Applicant failed to provide sufficient information for the Board to evaluate the Project’s impacts. CGA specifically misinterprets selected portions of Ohio Adm.Code 4906-4-07(C) to argue that the Applicant has failed to provide water quality information. (CGA Brief at 64-65). However, as explained in the application, such information is not relevant because the Project will not have any discharges to surface waters aside from stormwater runoff. (Kingwood Ex. 1 at 8, 43-45); *see also In Re Angelina Solar I, LLC*, Case No. 18-1579-EL-BGN, Post Hearing Brief of the Citizens

of Preble County, LLC (Dec. 11, 2021), at 74 and Opinion, Order and Certificate (June 24, 2021) at 63-64, 99 (where the Board considered and **expressly denied** an opposition group's similar argument that the Applicant failed to meet the requirements of Ohio Adm.Code 4906-4-07(C)).

Mr. Saunders explained that the Project does not pose a risk of surface water contamination and described, in detail, the specific measures that the Applicant will implement to protect receiving streams, such as construction best management practices, compliance with spill prevention regulatory requirements, and nominal use of herbicides. (Kingwood Ex. 19 at 12.) Moreover, in further support of the sufficiency of the information about the Project's impacts on water quality, the Little Miami Conservancy, a local non-profit dedicated to the restoration and protection of the Little Miami, informed Mr. Stickney that it did not have a concern about the Project. (Kingwood Ex. 6 at 7.) Similarly, Staff concluded in its report that the Project would comply with all applicable water pollution laws and regulations. (Staff Ex. 1 at 37-38).

Similarly, the Project will not threaten area groundwater sources, such as for 4-H Camp Clifton. As Kingwood witness John Nealon testified, the placement of piles to support solar arrays within the inner management zone of the 4-H Camp Clifton source water protection area would not represent a threat to the Camp's drinking water supply. (Kingwood Ex. 106 at 5-6.) He further explained that piles driven into native soils (soil not containing any backfill), as is the case for this Project, generally experience nominal corrosion because natural soil normally contains limited amounts of oxygen, resulting in only limited corrosion. (*Id.*)

Overall, the Board has sufficient information to conclude that the Project will not adversely impact groundwater, the nearby streams or the Little Miami River. The Board also has enough information, as explained above, to determine that the Project satisfies the criteria under R.C. 4906.10(A)(2) and (A)(3).

VII. Conclusion

Upon reviewing the record, the Board can come to but one conclusion: Kingwood has presented a well-designed Project, which will cause only minimal impacts. As fully explained in this reply brief and the initial brief, the Project's layout and Joint Stipulation take into consideration concerns presented by intervenors. Enhanced setbacks (250 feet between non-participating residences and the Project's fence line and 500 feet between non-participating residences and inverters) and screening will minimize visual (an additional 4,000 feet and totally 47,000 feet in total) and noise impacts. The Project is not visible from any of the tourist areas in the Project Area, including Clifton Gorge, John Bryan State Park, the Little Miami Jacoby Road state route access, the Upper Great Scott Trail, and the Glen Helen Natural Area. The Joint Stipulation, comprised of 39 conditions, provides significant additional protections. Further, most of these conditions have been approved by the Board in other solar project proceedings. This Project is no different than the numerous other ones approved by the Board previously, and consequently, the Board should issue a certificate for the Kingwood Solar Project. To do otherwise and defer to local opinions is contrary to the Board's governing statutes and the record. Power siting is not a popularity contest but a broad analysis of the impacts versus the statewide benefits.

Respectfully submitted,

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CERTIFICATE OF SERVICE

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