BEFORE THE OHIO POWER SITING BOARD

In the Matter of the Application of Alamo Solar I, LLC for a Certificate of Environmental Compatibility and Public Need	**)** **)** **)** **)**	**Case No. 18-1578-EL-BGN**

INITIAL POST-HEARING BRIEF OF ALAMO SOLAR I, LLC

Michael J. Settineri (0073369), Counsel of Record
Gretchen L. Petrucci (0046608)
Clifford W. Lauchlan (0092357)
VORYS, SATER, SEYMOUR AND PEASE LLP
52 East Gay Street
P.O. Box 1008
Columbus, Ohio 43216-1008
(614) 464-5462
(614) 719-5146 (fax)
mjsettineri@vorys.com
glpetrucci@vorys.com
cwlauchlan@vorys.com
Attorneys for Alamo Solar I, LLC

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I. INTRODUCTION

Alamo Solar I, LLC ("Alamo") requests that the Board issue a certificate of environmental compatibility and public need ("Certificate") to Alamo, including the conditions recommended in the Amended and Restated Joint Stipulation and Recommendation ("Amended Joint Stipulation"), for the Alamo Solar Project. The Alamo Solar Project is a proposed solar-powered electric generation facility with a capacity of 69.9 megawatts ("Project"). (Company Ex. 1 at 1). The Project will be located on approximately 919 acres of private land in Preble County, Ohio ("Project Area"). (Company Ex. 1 at 2). Alamo has provided ample evidence satisfying each of the applicable eight subsections of R.C. 4906.10 as well as the Board's three prong test for stipulations. Having met the Board's test as well as the statutory requirements, Alamo respectfully requests that the Board issue a Certificate to Alamo.

In addition to satisfying the Board's requirements for issuance of the Certificate, the Project also enjoys the support of the Ohio Power Siting Board Staff ("Staff") and numerous local authorities. Staff has recommended that the Board grant the Certificate subject to certain conditions, (Staff Ex. 1 at 33-37), and testified that it fully supports the Amended Joint Stipulation. (Staff Ex. 1 at 33-37; Staff Ex. 10 at 1:14-15). In addition to the support of Staff, the Project is supported by the Preble County Commissioners, Preble County Engineer, Preble

Soil & Water Conservation District, Board of Trustees of Gasper Township, Board of Trustees of Washington Township, the Preble County Planning Commission, and the Ohio Farm Bureau Federation, all of whom, along with Staff, signed the Amended Joint Stipulation recommending approval of the Project. (Joint Ex. 2 at 21-22).

The Project will also bring numerous benefits to the community including increased emission-free power, greater revenues to local government, and significant job creation. The addition of emission-free power will assist in the attainment of air quality goals in southwestern Ohio. (Company Ex. 1 at 42). Further, the Board of County Commissioners of Preble County recently passed a resolution that will require Alamo to make annual service payments totaling $9,000 per megawatt to local government amounting to at least $629,100 per annum. (Company Ex. 7 at 7; Company Ex. 14 at 14). This revenue far exceeds the amount of property taxes currently being paid on the parcels forming the Project Area. (TR at 86 and 605)

The Project will create 515 to 986 direct and indirect construction-related jobs with corresponding payrolls of $24 million to $49 million. (Company Ex. 1 at 31; Company Ex. 1 at Ex. C; Staff Ex. 1 at 14-15)). Following construction, during the operation phase of the Project, the Project will create approximately 13 direct and indirect jobs with corresponding annual payrolls of approximately $673,000. (Id.) In sum, the Project is expected to generate new economic output of approximately $58 million to $151 million during the construction phase and $1.2 million to $1.5 million annually from operation. (Company Ex. 1 at 32).

Despite the support of Staff and local authorities and the clear benefits to the local community, the CCPC, consisting of a small number of residents and private entities, oppose the Project. CCPC has voiced numerous concerns in its testimony to the Board. (CCPC Ex. 2 at 4-7; TR at 460). These include alleged concerns over visibility, vegetation management and

maintenance, construction and operation noise, wildlife, property devaluation, light locations, and repair of drain tile, among others. As an initial matter, CCPC admits that these concerns are neither expert opinions nor conclusions, but merely unsupported concerns about imagined impacts that have no evidentiary value. (TR at 454-55, 460). Nevertheless, Alamo has provided evidence and adopted numerous conditions that address each of CCPC's concerns. By way of example, the record establishes the following:

- Local traffic, including agricultural vehicles, will continue to be able to use local roads during construction and operation. (Company Ex. 9 at 4).
- The area surrounding the Project Area will not see an influx of wildlife that has been excluded from the Project Area. (Company Ex. 11 at 7).
- Any electromagnetic fields that are generated by the Project will not affect the use of electrical devices. (Company Ex. 1 at 66).
- Construction noise from the Project at any given location will be short in duration.
- Operational noise at the closest adjacent non-participating property line would, at the most, "be hardly audible if audible at all." (TR. at 639:20-21).
- Drain tile will be mapped and assessed prior to construction, and Alamo is committed to taking prompt action to repair damaged drain tile. (Joint Ex. 2 at 16).
- Adequate drainage in the Project Area and surrounding properties will be maintained and new Ohio Environmental Protection Agency (EPA) Guidance on stormwater control will be accounted for in any required stormwater management efforts. (Company Ex. 8 at 5-6; Joint Ex. 2 at 12).
- There is no risk of soil or water contamination from the Project. (Company Ex. 7 at 17).
- The Project will not burden on emergency services in the area, nor will it cause an increase in crime. (TR at 158-160, 164)
- The Project is not expected to cause any decrease in property values. (Company Ex. 12 at 7).

Given the evidence addressing each of CCPC's concerns, it appears that CCPC's true purpose is to keep the Project out of Preble County, regardless of the conditions Alamo accepts and whether the Project causes any actual impact. (TR at 439-440 (CCPC witness Joseph DeLuca testifying that he "will oppose the Project so long as it's located in Preble County.")). In other words, despite Alamo's genuine efforts to address all of CCPC's concerns, it appears that no condition or modification will satisfy CCPC because it is determined to oppose the Project and ignore the many benefits it will bring to Preble County, the surrounding region, and the State of Ohio.

In sum, and as set forth more fully below, Alamo has met its burden of proof as to the statutory criteria under R.C. 4906.10(A), and the Amended Joint Stipulation satisfies the Board's three-pronged test. First, it is the product of serious bargaining among capable parties. (TR at 110, 134, 168-169). Second, the Amended Joint Stipulation does not violate any important regulatory principle or practice. (Company Ex. 14 at 15). Finally, and most importantly, the Amended Joint Stipulation is in the public interest, providing substantial benefits to the public in the form of jobs and direct and indirect economic benefits. In addition, the Amended Joint Stipulation includes a number of conditions to ensure that the impact of the Project on the public is minimized, including conditions regarding setbacks, hours of construction, the maintenance and repair of drain tile, vegetation and noxious weeds, traffic and road maintenance, training and equipping local emergency services, and decommissioning. (Joint Ex. 2 at 6-12). The record establishes that the Amended Joint Stipulation should be approved without modification and a Certificate issued to Alamo for the Project.

II. SUMMARY OF THE PROCEEDING

On December 10, 2018, Alamo filed its Application (Company Ex. 1) and motion for certain waivers. On January 31, 2019, Alamo filed a Supplement to its Application (the "Supplement") shifting the location of the Project's substation. (Company Ex. 2). On February 8, 2019, the Board established that the Application complied with Chapters 4906-01, et seq., of the Ohio Administrative Code.

On July 5, 2019, following negotiations in which all parties to this proceeding participated, Alamo along with the Ohio Farm Bureau Federation, the Preble County Commissioners, the Preble County Engineer, the Preble Soil & Water Conservation District, the Board of Trustees of Gasper Township, the Board of Trustees of Washington Township, and the Preble County Planning Commission entered into and filed the original joint stipulation. (Company Ex. 7 at 2-3, 19; Joint Ex. 1). The Board held its initial hearing in this matter over three days on July 17, 18, and 19, 2019.

Following these hearings, Alamo continued its work to develop the Project. Alamo also engaged in a series of discussions and negotiations with the other parties to this proceeding regarding the potential for a revised and amended stipulation based, in part, on issues that were raised during the initial hearing and in the post-hearing briefing. That effort proved successful and resulted in the Amended Joint Stipulation, entered into by Alamo, Staff, the Ohio Farm Bureau Federation, the Preble County Engineer, the Preble Soil & Water Conservation District, the Preble County Planning Commission, the Preble County Commissioners, the Board of Trustees of Gasper Township, and the Board of Trustees of Washington Township, and which was filed on July 30, 2020.

The Amended Joint Stipulation includes both new and revised conditions. The Amended Joint Stipulation incorporated a new condition (Condition 29) related to the management of potential post-construction stormwater flows and also a new condition (Condition 30) regarding certificate authority that has been recently incorporated by the Board into other certificates. It also revised ten previously proposed conditions, including conditions addressing Project setbacks, cultural resources, visual screening and lighting, complaint resolution, drainage and drain tile, road maintenance, and decommissioning (Conditions 1, 3, 10, 14, 15, 16, 18, 20, 25 and 28). These new and revised conditions reflect the negotiations between the parties to this matter, the ongoing development of the Project, as well as additional commitments being made by Alamo.

Accordingly, also on July 30, 2020, the signatories to the Amended Joint Stipulation jointly moved the Board to reopen the record to allow for additional testimony regarding ongoing Project development and the additional commitments being made by Alamo reflected in the Amended Joint Stipulation. The Board subsequently granted the motion to reopen the record. The second hearing in this matter occurred on October 26, 2020.

III. PROPOSED FACILITY

Alamo intends to build the Project as a 69.9 MW solar-powered generating facility in Preble County, Ohio. (Company Ex. 1 at 3, 5). The Project would consist of large arrays of ground-mounted photovoltaic ("PV") modules, commonly referred to as solar panels. The Project also includes support facilities, such as access roads, meteorological stations, buried electrical collection lines, inverter pads, and a substation. The Project would occupy up to 919 acres within a 1,002.5-acre project boundary. (Id. at 6).

The solar panels would be attached to metal racking. The racking would include piles driven or rotated into the ground. The solar panel arrays would be grouped in large clusters that would be fenced for public safety and equipment security, with locked gates at all entrances. (Company Ex. 1 at 7). The entire perimeter of the Project Area will be fenced. (TR at 604). The Project will use crystalline or thin-film solar panels and fixed-tilt or single-axis tracking racking. (Company Ex. 1 at 8). Both racking systems would accommodate either crystalline or thin-film solar panel modules. Alamo has not selected the specific solar panel vendor, but intends to use a manufacturer that has the capability and experience to provide approximately 186,400 to 279,600 solar panels for the Project. (Id.)

Alamo will install an underground collector system made up of a network of electric and communication lines that would transmit the electric power from the solar arrays to a central location. (Company Ex. 1 at 9). Alamo proposes to install up to 20.5 miles of buried cable. (Id. at Exhibit G at Table 7-1). Installation of the cable would require an approximately 20-foot wide temporary work area along its entire length. The electricity from the solar panels would be generated in direct current ("DC"). DC power from the solar panels would be collected in circuits, which would be routed through cable trays, then to combiner boxes. Power from the combiner boxes would be transmitted to groups of components, collectively called inverters, each of which would include a DC-to-alternating current ("AC") inverter, a step-up transformer that would increase the voltage to 34.5 kV, and a cabinet containing power control electronics. (Company Ex. 1 at 9). Each inverter would deliver AC power to a common substation through a system of buried electric lines and associated communication lines. (Id.)

The Project substation would occupy approximately three acres of land adjacent the proposed point of interconnection. The major components of the Project's substation would be

collection line feeders and breakers, a 34.5 kV bus, a main power transformer to step up the voltage to 69 kV, a high-voltage breaker, metering/relaying transformers, disconnect switches, an equipment enclosure containing power control electronics, and a lightning mast that would be up to approximately 70 feet in height. (Company Ex. 1 at 9).

IV. STANDARD OF REVIEW

A. Statutory Criteria

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

(1) The basis of the need for the facility if the facility is an electric transmission line or gas pipeline;

(2) The nature of the probable environmental impact;

(3) That the facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations;

(4) In the case of an electric transmission line or generating facility, that the facility is consistent with regional plans for expansion of the electric power grid of the electric systems serving this state and interconnected utility systems and that the facility will serve the interests of electric system economy and reliability;

(5) That the facility will comply with Chapters 3704., 3734., and 6111. Of the Revised Code and all rules and standards adopted under those chapters and under sections 1501.33, 1501.34, and 4561.32 of the Revised Code. In determining whether the facility will comply with all rules and standards adopted under section 4561.32 of the Revised Code, the board shall consult with the office of aviation of the division of multi-modal planning and programs of the department of transportation under section 4561.341 of the Revised Code.

(6) That the facility will serve the public interest, convenience, and necessity;

(7) In addition to the provisions contained in divisions (A)(1) to (6) of this section and rules adopted under those divisions, what its impact will be on the viability as agricultural land of any land in an existing agricultural district established under Chapter 929 of the Revised Code that is located within the site and alternative site of the proposed major utility facility. Rules adopted to evaluate impact under

division (A)(7) of this section shall not require the compilation, creation, submission, or production of any information, document, or other data pertaining to land not located within the site and alternative site.

(8) That the facility incorporates maximum feasible water conservation practices as determined by the board, considering available technology and the nature and economics of the various alternatives.

The evidentiary record in this matter supports a Board finding that the criteria under Section 4906.10, Revised Code are either not applicable or are satisfied

B. Stipulation Criteria

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

(1) Is the settlement a product of serious bargaining among capable, knowledgeable parties?

(2) Does the settlement package violate any important regulatory principle or practice?

(3) Does the settlement, as a package, benefit ratepayers and the public interest?

The evidentiary record in this matter supports a Board finding that this three-prong test has been satisfied.

V. ARGUMENT

The record in this proceeding supports the Board finding and determining that all eight of the statutory criteria under R.C. 4906.10(A) have been met. Alamo's witnesses are experienced,

knowledgeable, and have decades of collective experience working in their respective fields. The record includes their testimony, and provides adequate evidence for the Board to find that the Project will have a minimal environmental impact; that the Project will serve the interests of electric system economy and reliability; that the Project will comply with air pollution, solid and hazardous waste, water pollution, aeronautics, and water consumption statutes; that the Project will serve the public interest; that the Project will have a minimal impact on the viability of agricultural district land; and that the Project will incorporate maximum feasible water conservation practices. The record also includes adequate evidence for the Board to find that the Amended Joint Stipulation satisfies the Board's three-pronged test, that the Amended Joint Stipulation (1) is the product of serious bargaining among capable parties; (2) does not violate any important regulatory principle or practice; and (3) is in the public interest.

A. Alamo's Witnesses are Experienced and Knowledgeable about Solar Projects

In support of its application and the Amended Joint Stipulation, and to address the "concerns" of the CCPC, Alamo presented eight expert witnesses, each with significant experience working with renewable generation and solar facilities in particular, who provided testimony over four days of hearing addressing certain specific subject areas. In contrast, the CCPC failed to offer a single expert witness. Given the experience, expertise, and knowledge demonstrated by Alamo's exert witnesses, the Board should be fully confident in relying on their testimony in determining that the Project meets the required criteria.

A summary chart setting forth the witnesses, their titles, places of employment, the topic areas of their testimony, and references to their pre-filed and hearing testimony is set forth in the chart below followed by a brief summary of their relevant experience.

NAME	COMPANY	TOPICS	TESTIMONY REFERENCES
Doug Herling, VP of	Open Road	All aspects of the	• Company Ex. 7 – Direct

NAME	COMPANY	TOPICS	TESTIMONY REFERENCES
Development	Renewables, LLC	Project's development	Testimony • Company Ex. 14 – Direct Suppl. Testimony • Transcript: 13-174 and 580-613
Noah Waterhouse, Director of Solar / Professional Engineer	EVS, Inc.	Drainage and drain tile	• Company Ex. 8 – Direct Testimony • Company Ex. 17 – Direct Suppl. Testimony • Transcript: 175-211 and 572-579
Mark Bonifas, Civil Engineering Practice Leader / Professional Engineer	Hull & Associates, Inc.	Traffic management , decommissioning and vegetation management	• Company Ex. 9 – Direct Testimony • Company Ex. 19 – Direct Suppl. Testimony • Transcript: 212-229
David Hessler, Vice President / Professional Engineer	Hessler Associates, Inc.	Noise impacts	• Company Ex. 10 – Direct Testimony • Company Ex. 15 – Direct Suppl. Testimony • Transcript: 237-269 and 617-645
Ryan Rupprecht, Senior Project Manager / Practice Lead for the Renewable Energy Group in the Midwest region	Cardno, Inc.	Environmental impacts	• Company Ex. 11 – Direct Testimony • Transcript: 269-312
Andrew Lines, Principal	CohnReznick LLP	Property valuation	• Company Ex. 12 – Direct Testimony • Transcript: 314-337
Mathew Robinson, Visualization Project Manager	Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C.	Visual impacts, mitigation, and landscaping	• Company Ex. 13 – Direct Testimony • Company Ex. 16 – Direct Suppl. Testimony • Transcript: 338-393 and 646-662
Mathew Marquis, Project Engineer / Professional Engineer and Certified Floodplain Manager	Hull & Associates, Inc.	Stormwater management	• Company Ex. 18 – Direct Testimony • Transcript: and 663-673

1. Doug Herling – Vice President of Development and Project Manager

Doug Herling has specific experience in the development of six different solar projects. (TR at 26). His role in development has been wide ranging, including, but not limited to, working on outreach and acquiring land rights; working with local officials; negotiating tax agreements; selling the output of projects; permitting the projects; doing land title work; coordinating environmental and cultural studies; and drafting applications for permits and requests for proposal. (Id. 29). In addition, Mr. Herling has spent a great deal of time working in the local community to understand and try to address concerns. (TR at 24-25; Company Ex. 14 at 9).

2. Noah Waterhouse – Professional Engineer – Drainage

Noah Waterhouse has extensive experience evaluating drain and runoff and drain tile issues at more than 50 solar projects. (Company Ex. 8 at 1-2). His experience in Ohio includes acting as the engineer of record for the 20-megawatt Bowling Green, Ohio solar project, as well as working on another 150-megawatt project with an extensive drain tile network. (TR at 180-181, 209).

3. Mark Bonifas – Professional Engineer – Transportation, Decommissioning

Mark Bonifas has been performing civil engineering services on renewable energy projects for over 10 years. (Company Ex. 9 at 2). Mr. Bonifas's experience includes managing multi-disciplinary teams to engage with local and state agencies to assess and meet regulatory requirements in the permitting and construction phases of projects, and has been involved the development of a number of traffic management plans. (TR at 222).

4. David Hessler – Professional Engineer – Acoustics

David Hessler has been the principal acoustical designer and/or test engineer on hundreds of power station projects all over the world, roughly 70 wind energy projects and, more recently, a number of large-scale solar projects, including several in the State of Ohio. (Company Ex. 10 at 1-2).

5. Ryan Rupprecht – Senior Project Manager – Environmental

Ryan Rupprecht is responsible for developing, managing and performing consulting work involving environmental permitting, terrestrial and aquatic ecological resource studies, wetland and stream delineations, surface water quality assessments, and oversees technical experts in biology/ecology, wetland sciences, cultural resources, and rare, threatened and endangered ("RTE") species habitat assessments. (Company Ex. 11 at 1). He has over 15 years of professional environmental experience with specific expertise in, among other areas, water resources, fisheries, habitat and wildlife valuation/identification, and soil/sediment evaluation. (Company Ex. 11 at 2). In addition, Mr. Rupprecht worked with a Cardno team during field surveys and to develop information in the Application and in his testimony. (TR at 276; Company Ex. 11 at 7).

6. Andrew Lines – Certified Real Estate Appraiser – Property Valuation

Andrew Lines oversees a staff of 30 appraisers and valuation experts in all types of real estate. (Company Ex. 12 at 1) He has testified before numerous governmental bodies regarding proposed new developments, including solar power installations, addressed community concerns regarding those proposed developments, and has completed valuation impact studies on solar farms as well as other large scale utility projects including, landfills, and electric power transmission lines. (Id. at 2).

7. Matthew Robinson – Visualization Project Manager – Visual Impacts

Matthew Robinson is responsible for the oversight of all technical analyses associated with visual impact assessments conducted by EDR. Mr. Robinson has previously overseen visual assessments, visual screening, and landscaping design for a number of solar projects, including Mohawk Solar in New York State and the Battle Creek 1 Solar Project, Ryegate GLC Solar, and Otter Creek I & II Solar Projects in Vermont. (Id. at 1-2).

8. Matt Marquis – Project Engineer – Stormwater

Matt Marquis's project experience includes a wide range of hydrologic and hydraulic ("H&H") analyses, surface water management and erosion and sediment control design. (Company Ex. 18 at 2). In his role as a project engineer at Hull & Associates, Inc., Mr. Marquis serves as the H&H lead on many large and small engineering design projects and flood studies for public and private clients covering dams, landfills, ash ponds, site development and redevelopment, and site remediation, among others. (Id.).

B. The Project is not an Electric Transmission Line or Gas Pipeline, and therefore the Board is not required to determine the basis for need (4906.10(A)(1))

The Project is an electric generation facility, not an electric transmission line or gas pipeline. (Company Ex. 1 at 1). Therefore, this statutory criterion is inapplicable.

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

Staff considered the Project's socioeconomic impacts, ecological impacts, and public services, facilities, and safety impacts as "environmental impacts" in the Staff Report. (Staff Ex. 1 at 12-23.) After summarizing the impacts, Staff recommended to the Board that it make a finding of determination as to the nature of the probable environmental impact and that the

Project will have a minimum adverse environmental impact, subject to Staff's recommended conditions. The record supports these same findings under the conditions recommended in the Amended Joint Stipulation.

1. The Board has Adequate Evidence to Find and Determine that the Socioeconomic Impacts are Minimal

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

The Project will be located on previously disturbed land that has been mostly cleared for agriculture and is extremely level. (Company Ex. 7 at 3-4). Existing features in the Project Area include electric transmission lines, a communications tower, public roads, single family homes and farm buildings. The Project Area itself does not include any population centers, major industries or notable landmarks. (Id.) Alamo anticipates relocating only one residence and associated farm structures to accommodate the Project. (Company Ex. 1 at 78). As Mr. Herling testified, the predominant industry in the Project Area is agriculture. (Company Ex. 7 at 3-4). However, there are no agricultural or conservation easements in the Project Area. (TR at 588). The Project Area is rural, and characterized by medium to large-sized farms with interspersed pockets of trees. (Company Ex. 7 at 4). Population densities in the townships composing the Project Area range from 45-351 people/sq.mi. (Company Ex. 1, Exhibit C at 10).

The Project is not expected to have any significant adverse effect on regional development, including housing, commercial and industrial development, schools, transportation system development, or other public services and facilities. (Company Ex. 1 at 81). Rather, the Project advances the goals espoused in Preble County's 2011 Comprehensive Economic Development Strategy and Land Use Plan. (Company Ex. 1 at 81). Specifically, the Project allows farms to diversify income, preserves land for future generations, increases township and county tax revenues, and creates temporary and permanent jobs in the County. (Id.)

Not only will the Project promote Preble County's current land-use goals, the Project will not cause any long-term impacts that would preclude the land's use for farming following the useful life of the Project. (Company Ex. 7 at 15). Indeed, CCPC's own witness, Donn Kolb, a man who has been farming in Preble County adjacent to the Project Area for nearly fifty years, acknowledged the Project Area could be returned to agriculture. (CCPC Ex. 3 at 1; TR at 501-502).

Because the Project will have a limited impact on land, promote Preble County's current land use goals, and because the land can be returned to its current use at the end of the Project's useful life, the Board has adequate evidence to find that the Project will have a minimal impact on land use.

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

The Project will have minimal impact on cultural and historic resources. Alamo identified registered landmarks of historic, religious, archaeological, scenic, natural, or other cultural significance within two miles of the Project Area. (Company Ex. 7 at 10). No such resources occur within the Project Area itself. (Id.) There will be no direct effects from construction or operation on any landmarks outside of the Project Area. (Company Ex. 1 at 85). To confirm these findings, Alamo has also prepared its Phase I cultural resource survey program in conjunction with Staff and the Ohio Historic Preservation Office ("OHPO").

On February 19, 2020, OHPO issued correspondence to Alamo approving its proposed work plans for the cultural resource survey program. (Company Ex. 14 at 7). Alamo will perform this survey prior to finalizing the Project layout to identify any cultural resources that were not already identified. (Id.) If this survey identifies cultural resources eligible for inclusion on the National Register of Historic Places, then the Amended Joint Stipulation commits Alamo

to present a modification or mitigation plan detailing how such sites will be avoided or impacts minimized. (Joint Ex. 2 at 8). The Board has approved similar conditions for mitigation of cultural resources in other solar projects. *In re: Willowbrook Solar I, LLC*, Case No. 18-1024-El-BGN, Joint Stipulation, filed February 2, 2019, at Condition 9.

Given Alamo's initial analysis and conclusion that no cultural resources exist within the Project Area, its further coordination and cooperation with Staff and OHPO to complete additional survey work, and Alamo's commitment to mitigate any potentially impacted cultural sites that may be identified, the Board has adequate evidence to find that the Project will have a minimal impact on cultural resources in the Project Area and surrounding area.

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

To assess the Project's impact on visual resources, Alamo performed a Visual Resource Assessment ("VRA") of the Project Area. (Company Ex. 13 at 2, 4). The VRA—which took into account topography and vegetation, and was not dependent on deciduous tree foliage—demonstrated that solar panels would be potentially visible from only 11.8% of the 5-mile visual study area, the proposed substation would be potentially visible from only 6.3% of the study area, that at distances beyond 0.5 miles any view of the Project would be minimal, and that at distances of 2.0 miles the Project will generally not be visible at all. (Id. at 4 and 8; TR at 344-345). In short, the VRA demonstrates the Project will have minimal visual impact. This finding is significant because Mr. Robinson testified that the VRA is a conservative, "worst-case-scenario" estimate. (TR at 346). In other words, if the VRA were to be performed again using the Project's final layout it "would probably find less visibility" impact. (Id.)

Mr. Robinson further explained that his use of the term "visible," in context of the VRA, should not be understood as meaning that the entire Project is visible from a particular area, but,

rather, could merely mean that a single panel might be visible through an opening in a hedgerow, for example. (TR at 386-387).

Despite the limited visibility of the Project, the Amended Joint Stipulation commits Alamo to implement visual mitigation measures to minimize any potential impact, especially with respect to non-participating adjacent properties. (Joint Ex. 2 at 9). Visual mitigation measures will include development of a landscape plan that includes use of vegetative buffers to screen the Project Area for owners of non-participating parcels. (Id.; Company Ex. 16 at 4). This landscape plan, which must be approved by an Ohio-licensed landscape architect, will also be included as part of the final design for the Project and will be submitted to Staff prior to the start of construction. (Joint Ex. 2 at 8, Condition 15). To that end, Alamo has already prepared a Preliminary Landscape Plan showing how the setbacks and vegetative screening will be incorporated into the final plan. (Company Ex. 16 at 5 and at Attachment 1).

The Preliminary Landscape Plan details various screening modules including those that provide, depending on the character and sensitivity of the adjacent land use: 1) roadside pollinator habitat with native seed, 2) vertical softening of views through clustered arrangements of native shrubs and trees, or 3) adjacent resource screening that creates a hedgerow of mixed deciduous and evergreen native material. (Company Ex. 16 at Attachment 1).

The Amended Joint Stipulation requires setbacks from the Project Area that are more than adequate to allow for robust visual screening for non-participating adjacent property owners. (Joint Ex. 2 at 6; Company Ex. 16 at 1; TR at 653). As Mr. Robinson has testified, the setback distances allow for "greater options and flexibility…[and] provide[] more room for vegetation to grow and become an established part of the existing landscape…providing a more natural appearance that blends the Project into the background." (Company Ex. 16 at 2).

The use of native shrubs and plantings would serve to soften the overall visual effect of the Project and help to better integrate the Project into the surrounding landscape. (Company Ex. 16, Attachment 1 at 2). In addition to helping blend the Project into the surrounding landscape, use of native plant species would also provide environmental benefits to the local animal and insect communities. (Id.; Company Ex. 13 at 6). Additionally, the different plantings and vegetation that EDR recommends for the Project are similar to those used to reduce the visual impact of substations and new construction, which in general are taller than solar panels and more visually impactful before the use of screening and mitigation. (Company Ex. 13 at 7). Mr. Robinson testified that he "had good success mitigating the impact of substations, and [that he] would expect similar mitigation to be successful for the Project as well." (Id.)

Further, the Amended Joint Stipulation requires Alamo to not only provide the vegetative screening, but maintain that screening for the entire life of the Project. (Joint Ex. 2 at 9; Company Ex. 16 at 4). In addition, Alamo is committed to replacing any failed plantings so that after 5 years at least 90 percent of the vegetation has survived in order to "further ensure that the visual impact remains mitigated and does not degenerate over time." (Company Ex. 16 at 4).

Based on the results of the VRA, as well as Alamo's commitment to mitigation of visual impact, the Board has sufficient evidence to find that the Project will have minimal impact on visual resources.

2. Ecological Impacts

Alamo identified the ecological impacts of the Project in its Application and through direct testimony at the evidentiary hearings. Ecological impacts may be broadly divided into five categories: surface waters, threatened and endangered species, other wildlife, vegetation and noxious and invasive weeds, and soil and water impacts. Alamo's Application, the Staff Report

and the testimony in this proceeding provide sufficient evidence to allow for a finding that the Project will have a minimal ecological impact. The Project Area is land that has already been disturbed seasonally/annually for agriculture. Mr. Rupprecht testified that Alamo has designed the Project to avoid and minimize impacts to wetlands, waterbodies, woodlots, and aquatic and terrestrial wildlife species where possible. (Company Ex. 11 at 7-8).

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

The Project will have a minimal impact on surface waters. There are 4.71 acres of wetland located within the Project Area, but there will be no wetland impacts resulting from the Project. (Company Ex. 11 at 4-5). A total of 30 waterbodies are located in the Project Area, but the Project will have a minimal impact on only 95 linear feet of stream. (Id. at 5). Mitigation measures, including the use of horizontal directional drilling ("HDD"), will be used to avoid impacts to other streams in the Project Area. (Id. at 6). The Board has adequate evidence to find that the Project's impact on surface waters will be minimal.

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

The Project will have an insignificant impact on any rare, threatened, and endangered ("RTE") species. The Project Area and the surrounding area within a ¼-mile buffer are not expected to provide habitat for any listed or other RTE species, as testified by Mr. Rupprecht. (Company Ex. 11 at 4). During Cardno's November 2017, April 2018, and October 2018 field surveys, no RTE species were identified. (Id.) While no species were identified, the historic ranges of the endangered and/or threatened Indiana bat, northern long-eared bat, Sloan's crayfish, and eastern massasauga rattlesnake include the Project Area. (Staff Ex. 1 at 18). However, USFWS concluded that, other than the Indiana bat, "due to the project type, size, and

location, we do not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species." (Company Ex. 1 at Exhibit G, Appendix B).

To avoid any potential adverse impact to the Indiana bat, the Amended Joint Stipulation requires Alamo to "adhere to seasonal cutting dates … unless coordination with the Ohio Department of Natural Resources (ODNR) and the U.S. Fish and Wildlife Service (USFWS) allows a different course of action." (Joint Ex. 2 at 10).

Based on the RTE evaluations performed for the Project, the Board has adequate evidence to find that the Project's impact, if any, on RTE species will be minimal.

c. The Board has Adequate Evidence to Find that the Project's Impacts on Other, non-RTE Wildlife will be Minimal

In addition to avoiding impact to RTE species, Alamo also evaluated the Project's potential impact on other wildlife in the area. Alamo's consultant Cardno "found that the Project would not significantly impact wildlife or wildlife habitat." (Company Ex. 11 at 6). The Project has been designed to locate the majority of infrastructure on active agricultural land, which only provides habitat for a limited number of wildlife species. (Id.)

Mr. Rupprecht testified that on a landscape scale, there is abundant availability of similar agricultural fields within the Project Area and surrounding area that can be used as similar habitat. (Company Ex. 11 at 6). In addition, the Project Area and ¼-mile buffer are not known to provide significant habitat for sensitive bird species. (Id.) The few birds and mammals that may forage within these fields would likely avoid these areas that are being disturbed by construction of the Project. (Id.; TR at 271-272). Due to this lack of adequate habitat in the immediate Project Area, it is likely many birds and wildlife will opt for higher quality habitat nearby for roosting, foraging, and breeding. Mr. Rupprecht noted that this was confirmed through direct observation by Cardno's field surveys. (TR at 272).

Mr. Rupprecht also led a Cardno team that determined that deer in the area surrounding the Project Area would increase by less than 5%, or 0.01 deer per acre, as a result of construction of the Project, and assuming that all deer are excluded from the Project Area. (Company Ex. 11 at 2, 7). Cardno derived that figure by using:

> "ODNR data, because they have data for deer population for hunting management, so we compiled their information for Preble County. Using what's called a HUF factor, which is Habitat Utilization Factors, we determined the use of the different land uses within the Project Area and the deer use and, therefore, what the displacement would be when that habitat is no longer available to the deer … It's taking basically the estimated population of deer per acre or per square mile, depending on how you want to look at it, again applying a HUF factor to the available land use with and without the fence line in existence, and then what that change would be after the fence line exists."

(TR at 297-298).

Mr. Rupprecht further testified that even though Cardno used deer population as the basis for its less than 5% estimate, other wildlife would likely have the same reaction as deer to the construction of the Project, and thus the conclusion could be applied to other terrestrial species. (TR at 311). Thus, because the Project Area is composed of low quality wildlife habitat, the actual increase in wildlife that is displaced into the surrounding area will be minimal, despite the fact that the Project Area is largely surrounded by similar habitat.

The Board has adequate evidence to find that the Project's impact on non-RTE wildlife will be minimal.

d. <u>The Board has Adequate Evidence to Find that the Project's Impacts on Vegetation will be Minimal and that the Project will not contribute to Noxious and Invasive Weeds</u>

The Project's impact on vegetation will be minimal. Construction of the Project requires, at most, tree clearing approximately 1.37 acres or approximately 0.13% of the 1,002 acres making up the Project Area. (Company Ex. 1 at 12; Staff Ex. 1 at 18-19; Company Ex. 19 at Attachment 1 at 7). Further, the large woodlots in the Project Area will be maintained. Also,

during construction the majority of the Project Area will not require excavation of soils because the Project Area is already relatively level. (Company Ex. 1 at 46; Company Ex. 16 at Attachment 1 at 7). In the limited circumstances where excavation may be necessary, the topsoil will be stockpiled separately and then placed back on top of the final contour, with the goal of retaining soil characteristics and nutrient content. (Company Ex. 16 at Attachment 1 at 7). In short, the Project will have minimal impact on the existing vegetation.

Alamo will also add vegetation to the Project Area, as testified by Mr. Robinson and provided in the Preliminary Landscape Plan. Plantings may include, depending on the character and sensitivity of the adjacent land use, 1) roadside pollinator habitat utilizing native seed, 2) vertical softening of views through clustered arrangements of native shrubs and trees, or 3) adjacent resource screening that creates a hedgerow of mixed deciduous and evergreen native material. (Company Ex. 16 at Attachment 1). In addition, as noted by Mr. Herling, areas inside of the Project Area will be planted with vegetative ground cover. (TR at 105).

Alamo is also committed to the control of noxious weeds primarily through mechanical means (as opposed to the widespread use of commercially-available herbicides). (Company Ex. 7 at 9; Company Ex. 1 at 76; TR at 106). Herbicide application will only occur when necessary and will be discontinued at least one year prior to decommissioning to ensure the breakdown of residual herbicides prior to return to agricultural use. (Company Ex. 19 at Attachment 1 at 8). Alamo, like others near the Project Area, also will be bound by Ohio law requiring the removal or destruction of noxious weeds upon notice. R.C. 5579.05. Further, Alamo's Vegetation Management Plan makes clear that the Project Area will be monitored post-construction, for the presence of any noxious weeds, as identified in OAC 901:5-37. In addition, the Amended Joint Stipulation requires Alamo, to the extent practicable, to purchase seed stock from a vendor

recommended by the Ohio Seed Improvement Association. (Joint Ex. 2 at 10, Condition 18). If Alamo is unable to purchase seed stock from such a vendor, it will still seek a source of seed that would not have noxious or invasive weed species. (TR at 151).

Finally, Alamo's Vegetation Management Plan also details the steps for preserving existing trees, using native and pollinator-friendly plant species, preservation of topsoil, and returning the land to agricultural use following the Project's useful life. (Company Ex. 19 at Attachment 1).

Based on the foregoing, the Board has adequate evidence to find that the Project will have a minimal impact on vegetation and will not contribute to noxious or invasive weeds.

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

There is no risk of either soil or water contamination from the panels to be used for the Project. The panels are composed primarily of readily recyclable materials such as glass, aluminum, and copper. (Company Ex. 7 at 17). Suppliers of solar panels that will be used for the Project have demonstrated that their products pass U.S. EPA's "Toxicity Characteristic Leaching Procedure" qualifying them as routine "solid" waste that can be disposed of in standard landfills. (Id.; TR at 129-130; Company Ex. 1 at 39). This includes Ohio-made solar panels based on cadmium telluride chemistry. (Company Ex. 7 at 17).[1]

Furthermore, as Mr. Herling testified, if a solar panel is damaged, nothing liquid or gaseous can leak out of it. (TR at 46-47). As an example, Mr. Herling provided testimony regarding solar panels at a solar farm in California that was struck by a tornado. (Id. at 48). Those panels were damaged, but soil testing confirmed that no leak of any material had occurred. (Id.) If a panel at the Project is damaged, Alamo will quickly be aware of the issue due to the

[1] Although solar panels may be disposed of in standard landfills, Alamo's decommissioning plan commits it to attempting to recycle those panels. (Company Ex. 19 at Attachment 3; Company Ex. 1 at 39).

constant monitoring provided by a supervisory control and data acquisition ("SCADA") system that will be used at the Project. (Id. at 47.) Panels will also be periodically inspected by on-site staff. (TR at 54-55).

Further, Alamo is committed to mitigating any potential effect the Project may have on stormwater. Specifically, Condition 29 of the Amended Joint Stipulation states that if an acre or more of ground is disturbed, Alamo will obtain a Construction General Permit from Ohio EPA and determine whether post-construction stormwater best practices are required. (Joint Ex. 2 at 12). As Mr. Marquis testified, Condition 29 will "help ensure that post-construction stormwater flows are appropriately managed." (Company Ex. 18 at 5). Mr. Marquis further testified that it is his opinion that "the vegetation beneath the panels [will be] more than adequate for the management of stormwater." (TR at 670).

Based on the benign nature of the panels, their negligible effect on stormwater, and Alamo's commitment to effectively manage post-construction stormwater, the Board has adequate evidence to find that the Project will have a minimal impact on soil and water.

3. Public Services, Facilities, and Safety

a. <u>The Board has Adequate Evidence to Find that the Project's Impacts on Traffic will be Minimal</u>

Once operational, the Project will not significantly contribute to traffic on local roads. (Company Ex. 1 at 76). State and local roads in the vicinity of the Project Area will experience increased traffic during Project construction due to the delivery of materials and equipment. (Company Ex. 1 at 36). As noted by Mr. Bonifas in his testimony, only a very small percentage of the loads to be brought to the Project Area will be overweight or oversized loads, which are those that exceed limits established by the Ohio Department of Transportation ("ODOT"), and will require a special permit. (TR at 216).

A preliminary route evaluation study was performed for the Project by Hull & Associates. (Company Ex. 1 at 36). U.S. Route 127 will be the primary road to access the Project Area vicinity. (Company Ex. 9 at 3.) Local roadways are generally in good condition, but the route evaluation study recommended that the use of certain roads be minimized due to their condition. (Company Ex. 1 at 36). Mr. Bonifas made clear the recommendation to minimize use does not mean that these roads could not be used for the Project, but they would likely need to be repaired post-construction or improved prior to construction if they were to be used. (TR at 215). To that end, on January 15, 2020, Alamo entered into a Road Use and Maintenance Agreement for Solar Projects and Infrastructure ("RUMA") with Preble County local authorities including the Board of County Commissioners and the Trustees of Gasper and Washington Townships. (Company Ex. 19 at Attachment 2). The RUMA requires Alamo to work with the Preble County Engineer to repair all portions of the impacted roads that may be damaged by Alamo's activity, at Alamo's sole expense, to a level consistent with the condition of such roads at the commencement of Alamo's use. (Id.) As added security to ensure that there is funding for any necessary repairs, the RUMA also requires Alamo to deliver a bond in an acceptable form prior to beginning any on-site construction work on the Project (i.e. before construction equipment may make use of the local roadways). (Id. at ¶ 10). Mr. Bonifas testified that road use and maintenance agreements "such as the one entered into in this matter…are a common practice for large construction projects, and in my experience effective at minimizing damage to local roads and ensuring repairs are made in a timely manner." (Company Ex. 19 at 3-4).

Further, Alamo will also work with the Preble County Engineer, the trustees for the impacted townships, and ODOT to ensure that any impacts to traffic flow are accounted for and

rectified. (Company Ex. 1 at 36). Where possible, deliveries on single lane roads to the Project will be limited despite low traffic volumes in and around the Project Area. (Id.)

Summarizing the Project's impact on traffic, Mr. Bonifas testified that:

> "[B]ased on the results of the Route Evaluation Study and my experience, I would not expect the construction or operation of the Project to have a negative effect on the travelling public. I would also not expect the construction or operation of the Project to have a negative effect on the condition of the local roadways that could not be maintained during construction or restored post-construction."

(Company Ex. 9 at 4).

In addition to the completed Route Evaluation Study and the RUMA, Alamo intends to implement a traffic management plan, as required by Amended Joint Stipulation Conditions 24 and 25. The traffic management plan will determine the routes that can be used by the contractor building the Project and it would be shared with local authorities. (Joint Ex. 2 at 10; TR at 224-225).[2] Mr. Bonifas went on to note that, for other traffic plans he has designed for solar projects, "the contractors are typically very accommodating for the local landowners and the public that are using the roads on a regular basis." (Id. at 225).

Further, as acknowledged by CCPC witness Joanna Clippinger, agricultural traffic does not have priority over other traffic on a road. (TR at 475). In fact, in all the years that Ms. Clippinger has been farming her property in Preble County (on a farm that has been in her family for over 110 years), she has not had an issue with a blockage of the road because of equipment going against each other. (TR at 477).

Based on the record, the Board has adequate evidence to find that the Project's impact on traffic will be minimal.

[2] Conditions 24 and 25 in the Amended Joint Stipulation refer to a "final traffic plan" and "transportation management plan," respectively. These references are to a single plan, not two different plans. (TR at 93, 155).

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

Mr. Hessler, in his Noise Report, concluded that, in contrast to other forms of power generation, sound emissions during construction of the Project are expected to be dramatically lower in magnitude and duration. (Company Ex. 2 at Noise Report at 15). The Project will not involve extensive excavation or other earth-moving work or construction of significant concrete foundations. (Company Ex. 1 at 57). Although numerous piles will be driven, they likely will be only to a depth of less than ten (10) feet and the activity will be relatively brief at any particular location. (Id.) Table 6.0.1 of the Noise Report provides representative sound levels from construction equipment at a distance of 50 feet away, which may be conservatively interpreted as the site property boundary. (Id.) In general, the Noise Report concluded that construction-related noise would be modest and intermittent, and would result in only minimal, unavoidable impacts. (Id.) Notably, agricultural equipment such as grain dryers are already utilized near the Project Area, are operated day-and-night, and, as the CCPC's witness, Ms. Clippinger, testified, "can be loud." (Id. at 481-482).

Despite the minimal potential construction noise, Alamo is committed to, and the Amended Joint Stipulation requires, mitigating any such noise by limiting the hours of construction, maintaining vehicles in proper working condition, and working with the local community to advise residents of those periods when sustained construction activity is expected to take place in relatively close proximity to their homes. (Company Ex. 1 at 59; Joint Ex. 2 at 8, Condition 13).

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

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

The potential sources of operational noise from the Project are from the Project's central inverters and it's substation and associated transformer. (Company Ex. 1 at 58). The record establishes that both potential sources will have minimal—if any—impact. First, with respect to the substation and transformer, Mr. Hessler concluded that the noise levels from the substation at the nearest residence would be "below the existing environmental sound level, which means in qualitative terms that there will be no, or no significant, change in what is audible at the houses." (Company Ex. 10 at 3). Not only did Mr. Hessler establish there would be minimal (or no) impact from the substation at the nearest residences, he made this determination using a very conservative measure.

Mr. Hessler compared projected noise emissions from the substation with the daytime L90 (near minimum) sound level in the area, which he determined via field survey to be 34 dBA. (Company Ex. 2 at Noise Report at 2). This L90 baseline comparison level represents "the quietest (not necessarily consecutive) 1 minute of each 10 minute interval making it a conservative measure of the near-minimum background sound level." (Id. at Noise Report at 4). In other words, the L90 level is lower than the average background sound level in the area—a measure known as the Leq level. (Id. at Noise Report at 5). To provide some context, Mr. Hessler testified a level of L90 is so quiet so there is "no ability for it to cover anything up." (TR 252).

In sum, with respect to the substation, Mr. Hessler concluded that "any noise from the new transformer will be insignificant at the nearest non-participating residences and beyond." (Company Ex. 2 at Noise Report at 4-5). This conclusion is true regardless of the time of day

because, as Mr. Hessler testified, "the sound emissions from the substation are negligible at the distances of concern here, whether it's during the day or at night." (TR at 238-239).

The same is true of the sound from the Project's central inverters. As Mr. Hessler testified, sound from inverters "is only perceptible at short distances and it is highly unlikely to be significant or problematic at any residences." (Company Ex. 10 at 4). Following this testimony, Alamo committed to expansive setbacks regarding inverters—a minimum of 500 feet between any central inverter and any residence on a non-participating parcel—and prepared a preliminary layout of the Project based on this restrictive setback. (Joint Ex. 2 at 6; Company Ex. 14 at Attachment DH2). Accordingly, Mr. Hessler has been able to confirm, through a detailed noise model that he developed, his original conclusion that inverter noise would be imperceptible at any nearby residences..

Mr. Hessler modeled the sound contours of the solar panel inverters using the Project's preliminary layout, which incorporates the new restrictive setbacks, coupled with a recent noise data report provided by the manufacturer of a common inverter model, the SMA SC4600-UP. (Company Ex. 15 at 2). Regarding the noise data report, Mr. Hessler testified that "[y]ou couldn't ask for a more thorough and detailed analysis," and that it provided "the ideal information required for modeling." (TR at 622 and 626). Mr. Hessler's model established that "the sound contours from the Project during normal operation on a sunny day projected out to an extremely quite sound level of 35 dBA," and that "all non-participating residences are either close to or, in the vast majority of cases, outside the 35 dBA contour." (Company Ex. 15 at 2).

For context, 35 dBA is "considered inconsequential even in rural environments where the background sound level is essentially negligible." (Id. at 3). In one case, a *property line* of a non-participating residence had a "sound level…about 40 dBA." (TR at 635). But, again, when

asked to explain how a sound level of 40 dBA compared to the existing ambient background noise, Mr. Hessler made clear that even at 40 dBA "[t]he background level is almost equivalent to the Project level at that property line **which means that the Project would be hardly audible if audible at all**." (TR at 639) (emphasis added). Mr. Hessler's personal experience also confirms that that sound from inverters is "barely audible" once one walks away from them. (TR at 249). Although Mr. Hessler, utilized a preliminary layout for the sound model, he made clear that "[w]ith an inverter setback of 500 feet…their exact location is immaterial from a noise impact perspective." (Company Ex. 15 at 4).

Although highly unlikely given the extremely quiet operation of inverters, in the event of a noise complaint regarding an inverter, "options, such as cabinet damping and ventilation silencers, would be available to retroactively mitigate noise from these devices and resolve any issue." (Company Ex. 2 at Noise Report at 13). Indeed, the Amended Joint Stipulation expressly commits Alamo to "promptly retrofit any inverter as necessary to effectively mitigate any off-site noise issue identified during operation of the facility." (Joint Ex. 2 at 6).

In sum, operational noise will not be an issue for the Project and it has been adequately evaluated for the Board to consider. As Mr. Hessler ultimately concluded, "I would not expect the operational sound emissions from the Project in general to have any negative impact on the surrounding community." (Company Ex. 10 at 5). Mr. Hessler'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.

d. <u>The Board has Adequate Evidence to Find that the Project's Electromagnetic Fields will be Minimal</u>

Any electromagnetic field ("EMF") generated by the Project will dissipate rapidly within short distances and will not impact signals or electronic devices. (Company Ex. 1 at 66).

Mr. Herling provided uncontroverted testimony regarding EMF establishing that any electric field generated by the inverters or substation will be shielded by other aspects of the Project, (TR at 100; 128); that any magnetic field generated will dissipate rapidly, and at 150 feet will be at background levels; that even at the edge of an inverter, magnetic field strength is below national and international standards, (TR at 128); and that the Amended Joint Stipulation commits Alamo to setbacks of at least 500 feet between any inverter and any residence located on a non-participating parcel. (Joint Ex. 2 at 6). Accordingly, the Board may find that EMF from the Project will have no impact on the area surrounding the Project Area.

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

Given the modest impact of construction of the Project, it will be relatively easy to decommission. (Company Ex. 1 at 37). Although the Amended Joint Stipulation requires that a comprehensive decommissioning plan be submitted at least 60 days prior to the start of construction, Alamo has already prepared a preliminary decommissioning plan that outlines how the Project Area will be restored to its prior use and estimates the costs to do so. (Company Ex. 19 at Attachment 3). In accordance with the Amended Joint Stipulation, the plan requires the Project Area be restored to use for cultivation, unless circumstances prevailing shortly in advance of the start of decommissioning indicate that another use is more appropriate or explicitly desired by the land owner. (Company Ex. 19 at Attachment 3 at 8). Restoration will include the removal of all solar panels, all electrical equipment, all buried cables less than 3 feet deep, all concrete foundations and support pads, and all access roads (unless a participating landowner chooses to retain the road). (Id. at 5-7). Decommissioning will return the Project Area to the same or functionally similar preconstruction drainage patterns, including farm drainage tiles, decompaction of soil, and seeding with an appropriate, low-growing vegetative

cover, such as clover, to stabilize soil, enhance soil structure, and increase soil fertility. (Id. at 8-9).

The preliminary decommissioning plan also includes an estimate of the net decommissioning costs—as required by the Joint Amended Stipulation. (Id. at 13; Joint Ex. at 12). Although the plan includes the estimated net decommissioning costs, the Amended Joint Stipulation makes clear that the Board retains the authority to accept or reject the engineer chosen by Alamo to conduct this cost analysis. (Joint Ex. 2 at 12). This arrangement ensures Board oversight and control over the decommissioning plan, and allows for greater transparency regarding the decommissioning cost estimates. (Company Ex. 19 at 5).

Because the life of the Project is estimated to be approximately forty years, two other requirements of the Amended Joint Stipulation will ensure decommissioning costs will be fully funded. First, the decommissioning costs are to be re-estimated at least every five years, and can only be adjusted upward. (Joint Ex. 2 at 12). Second, Alamo is required, if necessary, to provide financial security in the form of performance bond with the Board named as obligee, and which will be adjusted to reflect any increases in the net decommissioning costs. (Id.) This is significant because, prior to beginning construction, Alamo has committed to post the necessary financial security to ensure the availability of funds to pay for the net decommissioning costs at the end of the Project's life. As testified by Mr. Bonifas, Condition 28 "ensures that an effective plan can be put into place for the appropriate decommissioning of the Project so that the Project Area can be returned to another use after the end of the Project's useful life." (Company Ex. 9 at 5). The Board had adequate evidence to find that the Project will be decommissioned, and the decommissioning will have minimal impact.

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

i. Drainage and Runoff

The record evidence establishes that the Project's environmental impact on drainage and runoff will be minimal, if any. As an initial matter, Alamo's preliminary investigation concluded that "the soils in the Project Area…is suitable for…drainage for the Project, and there are no soil-related inadequacies to remedy in connection with the Project." (Company Ex. 1 at 63). Further, Mr. Waterhouse—a licensed professional engineer with extensive experience evaluating drainage, runoff, and drain tile issues at more than 50 solar projects, (see supra at Section V.A.2)—concluded that: "**The Project should not have an impact on drainage, nor should it result in an increase in runoff**." (Company Ex. 8 at 5). Indeed, far from having a negative impact, Mr. Waterhouse's expert opinion is that "when compared to a fallow field, I would expect the Project to have **superior drainage and runoff characteristics, due to the year-round vegetation maintained in and around the Project Area"** and that "**in this typical type of project condition, our modeled results always show a reduction in runoff**." (Company Ex. 8 at 5; TR at 203-204) (emphasis added).

Mr. Waterhouse's expert conclusion was also confirmed by Mr. Marquis in his discussion regarding stormwater runoff when he stated that "**the vegetation coverage beneath the panels…is more than adequate for the management of stormwater**." (TR at 670) (emphasis added). Both Messrs. Waterhouse and Marquis agree that the only impact, if any, to drainage and runoff would be a positive one.

Nevertheless, Alamo is also committed to satisfying a General Permit Authorization for Storm Water Discharges Construction Associated with Construction Activities ("Construction General Permit") issued by Ohio EPA and will perform pre- and post-construction stormwater

calculations to determine if post-construction best management practices are required per the Construction General Permit. (Joint Ex. 2 at 12). Further, if any such practices are required, Alamo is also committed to incorporate guidance from the Ohio EPA titled, "Guidance on Post-Construction Storm Water Controls for Solar Panel Arrays." (Id.) In short, although no negative impact on runoff or drainage is anticipated, Alamo has committed to mitigate any such impacts per the Construction General Permit and Ohio EPA guidance. For these reasons, the Board should find that the Project's impacts on drainage and runoff will be minimal.

ii. Drain Tile

Alamo is also committed to avoiding damage to drain tile in the Project Area, where possible, and if any tile in the Project Area is damaged, to repairing it promptly no later than 30 days after such damage is discovered. (Company Ex. 1 at 93; Joint Ex. 2 at 9). In order to ensure the impact to drain tile is minimized, Alamo is engaged with Mr. Waterhouse in an effort to identify all drain tile in the Project Area to ensure it has the best understanding it can of where drain tile is located prior to beginning construction. (TR at 57, 185-186). Mr. Waterhouse testified that efforts to map out the drain tile taken to date include: 1) working with the Preble County Engineer and the Preble Soil & Water Conservation District to obtain maps of any drain tile in the Project Area, 2) discussions with landowners in the Project Area to identify drain tile locations, and 3) conducting an on-site review to identify drain tile indicators visually. (Company Ex. 8 at 6).

In addition, Mr. Herling testified that "Starting in February 2020 [Alamo] conducted a targeted mailing campaign…[seeking] information from adjoining landowners regarding drain tile or other drainage infrastructure on their property." (Company Ex. 14 at 9; TR at 586; Joint Ex. 2 at 9). The purpose of this effort is to identify all drain tile information "that exists within the community" to ensure it is "considered in the mapping and assessment efforts," which, in

turn, will aid Alamo in its commitment to "avoid, where possible…any damage to functioning…field tile." (Company Ex. 14 at 8-9; Joint Ex. 2 at 9). To further ensure an understanding of how drainage operates in the Project Area, the Amended Joint Stipulation also requires Alamo to establish benchmark drainage conditions, pre-construction. (Joint Ex. 2 at 9; Company Ex. 17 at 2).

In the event damage to drain tile cannot be avoided, Alamo is committed to "promptly" repair any such damage "no later than 30 days after such damage is discovered, and be returned to at least original conditions or their modern equivalent at [Alamo's] expense." (Joint Ex. 2 at 9). As testified by Staff witness Mark Bellamy, the requirement to repair tile "promptly" is synonymous with "as quickly as feasible" or, barring any unforeseen circumstances, "as soon as possible." (TR at 539-540). In other words, Alamo's obligation to repair drain tile "promptly" requires immediate action, where circumstances allow. And, where immediate action is not immediately feasible, under no circumstances can the damage go unrepaired for more than 30 days. (TR at 550).

This 30-day deadline is more than reasonable considering that current repair practices on the farms in the surrounding area can take much longer. For example, CCPC witness Donn Kolb testified that some repairs to drain tile in the area adjacent to the Project Area, even to main tiles, can take months for before work even begins:

> …[The] main collapsed on that neighbor's property in May of this year, correct? A. Yes. Q. Okay. And you and the -- you and the neighbor hired a contractor to repair that main about a week ago or so? A. Yes. He started a little bit before the 4th of July and finished the week after the 4th of July.

(TR at 498-499). He also noted that in a situation where the County needed to be petitioned to repair drain tile, that process could also take weeks, if not months. (TR at 505-506). Mr. Kolb also readily admitted that there are instances where he "would not

immediately repair a damaged drain tile," as the timing of repair depends on numerous factors including "the time of the year, what crops are out there, and what the potential damage could be; there's many factors involved." (TR at 505).

Regarding the logistics of repairing drain tile between rows of solar panels, there is sufficient room between the solar panel rows for larger equipment to repair or replace drain tile, potentially including "mini-excavators" or "small diggers," as testified by both Mr. Herling and Mr. Waterhouse. (TR at 124, 184).

Although Alamo has robust safeguards in place to ensure the prompt repair of any damaged drain tile, such damage is highly unlikely. Mr. Waterhouse testified that in his experience gained from working on over 50 solar projects, **he has not encountered a single issue of tile breakage or drainage resulting from construction at a solar farm**. (TR at 179). In fact, in the sole instance where he was called to investigate ponding at a project, he determined that the ponding issue was a downstream issue, completely unrelated to the drain tile within that project area. (TR at 182).

Given Alamo's efforts to fully identify the Project Area's drain tile in order to minimize potential impacts, and its commitment to promptly repair any damage to that drain tile, the Board has adequate evidence to determine that the impact of the Project on drain tile will be minimal.

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

PJM Interconnection LLC ("PJM") analyzed the bulk electric system with the Project modeled as if it were interconnected to it to determine compliance with North American Reliability Corporation reliability standards and PJM reliability criteria. The PJM analysis indicated that no reliability violations would occur during single and multiple contingencies.

(Company Ex. 1 at Exhibit B; Staff Ex. 1 at 25). In addition, no potential violations were found during the short circuit analysis. (Id.) Accordingly, the Project is consistent with regional plans for expansion of the regional power system, and will serve the interests of electric system economy and reliability.

E. The Board has Adequate Evidence to Determine that the Project will comply with Chapters 3704, 3734, and 6111 of the Revised Code and all rules and standards adopted under those chapters and under sections 1501.33, 1501.34, and 4561.32 of the Revised Code (4906.10(A)(5))

The Project will comply with Chapters 3704 (air pollution control), 3734 (solid and hazardous waste control), and 6111 (water pollution control) of the Revised Code, and all rules and standards adopted under those chapters. The Project will also comply with R.C. Chapter Section 4561.32 (aeronautics), and R.C. 1501.33 and R.C. 1501.34 (water consumption), to the extent that they are applicable. A discussion of each of these areas follows.

1. The Project will Comply with R.C. Chapter 3704 and all rules and standards adopted thereunder

Small amounts of fugitive dust will be generated during construction and, therefore, the fugitive dust rules set forth in Chapter 3704, Revised Code, may be applicable. Alamo will use best management practices to minimize emissions. Those practices will include (1) retention of licensed construction firms that are knowledgeable about the importance of minimizing dust creation during construction activities; (2) maintenance of construction vehicles in proper working condition; and (3) use of water and/or dust suppressant on unpaved roads as needed to reduce dust creation. (Company Ex. 1 at 43.)

Because the Project will generate electricity without releasing pollutants into the atmosphere, air-related regulations are not triggered during operation. The Project does not require any air permits. (Id. at 42-43.)

Staff concluded that both construction and operation of the Project, as described and as subject to the conditions set forth by the Staff, will be in compliance with air emission regulations in Chapter 3704, Revised Code, and the rules and laws adopted thereunder. (Staff Ex. 1 at 28).

Accordingly, the Board may find that the Project will comply with the requirements of Chapter 3704, Revised Code and the regulations adopted under that chapter.

2. The Project will Comply with R.C. Chapter 3734 and all rules and standards adopted thereunder

The Project Area is relatively free of debris and solid waste already. (Company Ex. 1 at 48). During construction, some solid waste will be generated, but it will be minimal. (Id. at 49). Primarily, this may include package-related materials, such as crates, nails, boxes, containers, and packing materials, damaged or otherwise unusable parts or materials, and occasional litter and miscellaneous debris generated by workers. (Id.) Waste that cannot be re-used or recycled will be disposed of in a municipal landfill. (Company Ex. 1 at 49).

During operation, only exceedingly small amounts of waste will be generated, which will be of the same general nature as the waste generated during construction. (Company Ex. 1 at 50). No licenses or permits will be required for waste generation, storage, treatment, transportation and disposal. (Id. at 50-51). Staff concluded that, with Alamo's planned measures, all solid waste generated will comply with solid waste disposal requirements in R.C. Chapter 3734, and the rules and laws adopted under that chapter. (Staff Ex. 1 at 28).

Based on the record, the Board may conclude that the Project will comply with all solid waste disposal requirements.

3. The Project will Comply with R.C. Chapter 6111 and all rules and standards adopted thereunder

Construction and operation of the Project will require virtually no water. (Company Ex. 1 at 48). Construction will involve only limited activities requiring the management of storm-water related pollutants. (Id. at 46). Construction will necessitate little earth-moving and grading because the Project Area is relatively level. (Id.) Construction will include only the occasional clearing of trees, and the Project's design will avoid the need to clear large blocks of active wildlife habitat. (Id.) Construction also will necessitate little excavation, which will be limited primarily to the creation of road beds and efficient trenching for collection lines. (Id. at 48). Nonetheless, as noted above, the Project will satisfy the General Construction Permit, which was promulgated under the National Pollutant Discharge Elimination System ("NPDES"), including the development and implementation of a Stormwater Pollution Prevention Plan ("SWPPP") for erosion control and the management of stormwater. (Id. at 45-46).

As testified by Mr. Rupprecht, **there will be no impacts resulting from the Project on the 4.71 acres of wetlands located within the Project Area.** (Company Ex. 11 at 4-5). Mr. Rupprecht further testified that 30 non-wetland waterbodies (streams, ponds, or ditches) are located in the Project Area. (Id. at 5; Company Ex. 1 at Exhibit G, Table 6-4). Of those 30 non-wetland waterbodies, the Project will have a minimal impact on only 95 linear feet of streams or ditches. (Company Ex. 11 at 5; Company Ex. 1 at Exhibit G, Appendix E, Table E-2).

To the extent necessary, Alamo intends to utilize a limited number of "nationwide permits" issued by the U.S. Army Corps of Engineers under Section 404 of the federal Clean Water Act for crossings of certain "waters of the U.S." and, if required in connection with those nationwide permits, receive a water quality certification from Ohio EPA pursuant to Section 401 of the federal Clean Water Act. (Company Ex. 1 at 45-46).

With the permit measures and mitigation efforts planned by Alamo, Staff concluded that construction and operation of the Project will comply with the requirements of Chapter 6111, and the rules and laws adopted under this chapter. (Staff Ex. 1 at 27).

Given these facts, the Board may conclude that with the above measures, construction and operation of the Project will comply with the requirements in Chapter 6111, Revised Code, and the rules adopted under that chapter.

4. The Project will Comply with R.C. 1501.33 and 1501.34 and all rules and standards adopted thereunder, to the extent they are applicable

R.C. 1501.33 and R.C. 1501.34 impose permitting requirements on facilities that will result in a new or increased consumptive use of more than two million gallons per day. R.C. 1501.33(A). Because the Project has near zero water consumption requirements, no such permit will be required. The Project will comply with these statutory sections, to the extent they are applicable.

5. The Project will Comply with R.C. 4561.32 and all rules and standards adopted thereunder

The highest point of the Project will be a single lightning mast located at the Project substation, which will be up to approximately 70 feet in height. (Company Ex. 1 at 83). The solar panels themselves will be no more than 15 feet above ground level. (Id.) There are no public use airports, helicopter pads, or landing strips within five (5) miles of the Project Area. (Id. at 51). The closest public use airport is located approximately 10 miles from the Project Area. (Company Ex. 1 at 53). Because the Project Area is well outside the vicinity of Richmond Indiana Municipal Airport, an aeronautical study regarding glare is not warranted (14 CFR 77.17(a)(2)). (Company Ex. 1 at 28).

In addition, Mr. Robinson testified that glare from the Project is not a concern. (Company Ex. 13 at 7). In fact, the potential for reflectivity or glare from solar panels is

generally lower than the glare and reflectance generated by common surfaces in the surrounding environment, including, grasslands, water and glass. (Id. at 7-8).

The evidence demonstrates that Section 4906.10(A)(5), Revised Code, has been met.

F. The Board has Adequate Evidence to Determine that the Project will Serve the Public Interest, Convenience and Necessity (4906.10(A)(6))

As addressed above, the Board has adequate evidence to determine that the Project will have minimal environmental impacts. In addition, the Board has adequate evidence to find that the Project is in the public interest and will not have a negative impact on the local community. The Board has adequate evidence to determine that the Project will have no effect on property values in the local area around the Project and that the Project will have no negative impact on emergency services, and will not result in an increase in crime.

1. Public Interaction

Alamo has involved the public in the development of the Project. Mr. Herling testified that Alamo has met with a variety of public officials, including township, fire, and EMS officials, and attended and participated in public meetings, beginning in March 2017. (TR at 21-22, 24). Alamo also reached out to area landowners to gauge interest in participating in the Project or to attempt to understand any concerns related to the Project, beginning in late 2016 and continuing through 2018. (Id. at 24-25). As a part of the Ohio Power Siting Board process, Alamo held a public information meeting in November 2018 (Company Ex. 1 at 22). Alamo also made public notice mailings and newspaper publications regarding the Project (Company Ex. 5; Company Ex. 6). Beginning in February 2020, Alamo conducted a targeted mailing campaign to landowners adjacent to or near the project to solicit information regarding drain tile infrastructure. (Company Ex. 14 at 9; TR at 586).

As required by the Amended Joint Stipulation, Alamo has prepared a complaint resolution program to ensure a clear process is in place to allow for identification and resolution of concerns voiced by members of the community during Project construction and operation. (Company Ex. at Attachment DH4). Pursuant to the plan, Alamo will establish and publish in the community a toll-free telephone number to report complaints. (Id.) Alamo is obligated to respond to any such complaints within 48 hours. (Joint Ex. 2 at 7, Condition 10)

These efforts support a finding that the Project is in the public interest.

2. Property Values

Alamo commissioned Andrew Lines of CohnReznick LLP to evaluate the potential impact of the Project on property values in the area surrounding the Project. (Company Ex. 12 at 2-3). Mr. Lines is a designated Member of the Appraisal Institute with over 16 years of real estate appraisal experience. (Id. at 1). He is also a Certified General Real Estate Appraiser with active licenses in 9 states. (Id. at 1-2). CohnReznick conducted an in-depth study of other large-scale solar farms to determine what impact, if any, the Project may have on the value of surrounding properties. (Company Ex. 12 at 3). Mr. Lines testified that the study included an evaluation of the effects of a 100 megawatt solar project in Minnesota, which is the only project in existence in the Midwest that is as large as or larger than the Project. (TR at 321-322).

As testified by Mr. Lines, the study determined that "no consistent and measurable negative impact had occurred to adjacent property that could be attributed to proximity to the adjacent, commercial-scale, solar energy use, with regard to unit sale prices or other influential market indicators such as marketing time." (Company Ex. 12 at 6). These results have been corroborated by a study of the Minnesota project performed by a local county assessor using a different methodology from that used by Mr. Lines. (Id. at 7; TR at 332). Mr. Lines ultimately

concluded in his testimony that "I would not expect the Project to be the cause of a decrease in property values in the project area." (Company Ex. 12 at 7).

Mr. Lines's expert testimony and the study his firm conducted provide the Board with sufficiently information to find that the Project will not have an impact on local property values.

3. Safety and Emergency Services

The fields hosting solar arrays for the Project will be enclosed with fencing and locked gates. (Company Ex. 1 at 7). Mr. Herling also testified to the safety measures that would be in place at the Project. For example, personnel will be at the Project every day. (TR at 54). In addition, the Project also may be monitored remotely via motion-activated security cameras. (TR at 127-128). Personnel visiting the Project, for any reason, will be checking gates and fences for security. (Id.)

Alamo intends to develop an emergency response plan for local officials and emergency personnel. (Company Ex. 1 at 55). The Amended Joint Stipulation also commits Alamo to provide initial, pre-construction training to the local fire and EMS service providers as well as providing ongoing safety meetings, and any specialized equipment to local fire and EMS service providers. (Joint Ex. 2 at 11-12, Condition 27). The initial training "would introduce the department in various jurisdictions to the idea of the solar farm, how to respond and help design any kind of emergency plan." (TR at 159). Moving forward, safety meetings will be held on an ongoing basis. (Joint Ex. 2 at 11-12, Condition 27). As testified by Mr. Herling (a former EMT), such safety meetings are "common for EMS when you're coordinating between departments or jurisdictions…to walk through your emergency management plan, your response plan." (TR at 158). The ongoing safety meetings will contribute to and maintain the local fire and EMS service providers' institutional knowledge regarding the Project. (TR at 159-160).

Finally, there simply is no evidence in the record, beyond mere conjecture or the "concerns" of CCPC, that the Project will somehow lead to an increase in crime in the Project Area. (CCPC Ex. 2 at 6). Mr. Herling testified that the County Sheriff has not indicated any issues "out of the norm" near the Project Area. (TR at 164). Despite CCPC's speculation to the contrary, there is no testimony or other evidence in the record showing that there will be a crime issue associated with the Project.

The Board has adequate evidence in the record to determine that the Project will not have a negative impact on emergency services in the local area and no impact on crime, and thus will serve the public interest.

G. The Board has Adequate Evidence to Determine the Project's Impact on the Viability of Agricultural District Land (4906.10(A)(7))

The Project will impact up to 504.6 acres of agricultural district land. (Company Ex. 3 at 1). After the conclusion of the Project's useful life, the Project will be decommissioned and will be restored to potential use as an agricultural area. The Project will have only modest impacts to the Project Area. (Company Ex. 7 at 15). Specifically, the solar panels and racking will be installed on simple posts driven or rotated into the ground, likely to a depth of less than ten feet. (Company Ex. 1 at 37-38). Inverters and pyranometers will be installed on gravel pads, or on prefabricated foundations, which can be lifted out of place. (Id. at 38). The Project's substation will be installed on poured concrete, but will not cover a large area, and will be broken up and removed during decommissioning of the Project. (Id.; Company Ex. 19, Attachment 3 at 6). Roads will be constructed of aggregate material or covered in grass, not paved, and participating land owners may choose to retain roads for their own use following decommissioning. (Id.)

There will not be any long-term impacts from the Project that would preclude its use for farming after the useful life of the Project. (Company Ex. 1 at 92). In fact, CCPC's own

witness, Donn Kolb, a man who has been farming in Preble County adjacent to the Project Area for nearly fifty years, acknowledged that the Project Area could be returned to agriculture. (CCPC Ex. 3 at 1; TR at 501-502).

Furthermore, the decommissioning plan requires that the Project Area be restored to use for cultivation, unless circumstances prevailing shortly in advance of the start of decommissioning indicate that another use is more appropriate or explicitly desired by the land owner. (Company Ex. 1 at 39; Company Ex. 19, Attachment 3 at 8). Mr. Herling testified as to the decommissioning process, stating that restoration will include a return to the same or functionally similar preconstruction drainage patterns, including farm drainage tiles, decompaction of soil, and seeding with an appropriate, low-growing vegetative cover, such as clover, to stabilize soil, enhance soil structure, and increase soil fertility. (Company Ex. 7 at 15-16). The restoration process outlined in Mr. Herling's testimony is also reflected in the draft decommissioning plan prepared by Hull & Associates. (Company Ex. 19, Attachment 3).

Finally, the Amended Joint Stipulation requires not only that the Project be decommissioned, but that the Project avoid damage to drain tile in the Project Area where possible, and repair tile that is damaged. (Joint Exhibit 2 at 9).

Given the information in the Application and witness testimony, the Board may find, as Staff did, that the impact of the Project on the viability of existing agricultural land in agricultural districts has been determined, and is minimal.

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

During operation, the Project will use only an extremely small volume of water for occasional cleaning of solar panels. (Company Ex. 1 at 10). No wastewater discharge is expected from the Project, and there will be no impacts to water quality due to construction or

operation of the Project. (Company Ex. 1 at 45). Because of the minimal water demands for the Project, the Project incorporates maximum feasible water conservation practices.

I. The Board has Adequate Evidence to Determine that the Amended Joint Stipulation Meets the Board's Criteria for Approval

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

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

The original Joint Stipulation, filed on July 5, 2019, was the product of negotiations held with all parties to this proceeding, all of whom were represented by Counsel. (Company Ex. 7 at 18; TR at 110, 134, 168-169). Evidencing the serious nature of the bargaining that led to the original Joint Stipulation, the signatories all agreed to modify some of the conditions recommended by Staff, and to add new conditions that were not present in the Staff Report. (Company Ex. 7 at 18; *compare* Staff Ex. 1 at 33-37 to Joint Exhibit 1 at 5-11).

In the nearly 12 months following the filing of the original Joint Stipulation, plans for the Project, called for by that original document, continued to be developed and revised. Alamo engaged all parties in order to negotiated and finalize the Amended Joint Stipulation, which all the signatories acknowledge "presents both revised and new conditions that are more protective than the conditions in the original stipulation submitted on the record." (Joint Motion to Reopen Hearing Record, filed July 30, 2020 at 3). In short, like the original, the Amended Joint Stipulation is also a product of serous bargaining. All parties had the opportunity to participate, all the signatories to the Amended Joint Stipulation were represented by counsel, and the

changes made to the Amended Joint Stipulation reflect input by all signatories. (Company Ex. 14 at 12).

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

As detailed above, the Project as described in the Application, Staff Report, and testimony, meets the criteria for issuance of a Certificate under R.C. 4906.10. Thus, the Amended Joint Stipulation, in recommending conditions on the Project, furthers the regulatory principles and practices of the Ohio Power Siting Board. As testified by Mr. Herling, the Amended Joint Stipulation does not violate any important regulatory principle or practice. (Company Ex. 14 at 15). Indeed, the Amended Joint Stipulation represents a significant achievement given that it was executed by Staff, the Ohio Farm Bureau Federation, the Preble County Commissioners, the Preble County Engineer, the Preble County Soil & Water Conservation District as well as the Board of Trustees for both Washington and Gasper Townships. (Joint Ex. 2 at 21-22).

3. The Amended Joint Stipulation is in the Public Interest

The Amended Joint Stipulation was a product of intense negotiation among the parties to this proceeding. Recommended conditions in the Amended Joint Stipulation require the Project to take steps and meet certain requirements during the construction and operation of the Project to minimize impacts of the Project. Thus, the Amended Joint Stipulation is in the public interest.

a. <u>The Amended Joint Stipulation is in the Public Interest because it would Approve a Project with Many Public Benefits</u>

The Amended Joint Stipulation is in the public interest because, through it, a facility with substantial benefits would be constructed. These benefits include the generation of emission-free power, which will assist in the attainment of air quality goals in southwestern Ohio. (Company Ex. 1 at 42). The Project will also make payments to local government, including Preble County,

Gasper and Washington Townships, and the local school districts, far in excess of the property taxes currently being paid on the parcels forming the Project Area. (TR at 86). In general, payments to local government from the Project will be a minimum of $629,100. (Company Ex. 7 at 7; Company Ex. 14 at 14). This revenue far exceeds the amount of property taxes currently being paid on the parcels forming the Project Area. (TR at 86 and 605).

The Project will also create approximately 515 to 986 direct and indirect construction-related jobs with corresponding payroll of $24 million to $49 million. (Company Ex. 1 at 31; Company Ex. 1 at Exhibit C; Staff Ex. 1 at 14-15). During operation, the Project is expected to create approximately 13 direct and indirect jobs with corresponding annual payroll of approximately $673,000. (Id.) The Project is expected to generate new economic output of approximately $58 million to $151 million during construction and $1.2 million to $1.5 million annually from operation. (Company Ex. 1 at 32).

b. The Amended Joint Stipulation is in the Public Interest because it Increases Setback Distances from Public Rights-of-way (Condition 3)

The original stipulation revised Staff's recommended conditions so that setbacks would be measured from road rights-of-way rather than the edge of roadways (compare Staff Ex. 1 at 33, Recommended Condition 3, to Joint Ex. 1 at 6, Condition 3). The Amended Joint Stipulation preserves this change, but goes even further to establish clear setbacks distances, specifically the following: 25 feet between the Project fence and any property line of a non-participating property or any edge of right-of-away of a public road; 150 feet between the Project fence and any residence on a non-participating parcel; and 500 feet between any central inverter and any residence on a non-participating parcel. (Joint Ex. 2 at 3). As Mr. Herling testified, these setbacks are in addition to the minimum setbacks already contained in the application (TR at 589-590).

These greater setback distances benefit both the vegetative screening and the potential noise from any central inverter. First, as testified by Mr. Robinson, these revised setbacks "will allow for greater screening of the Project from residences." (Company Ex. 16 at 1). "The increased space which will further allow the proposed modules to achieve the goals set forth in the Landscape Mitigation Plan." (Id. at 2).

Second, Mr. Hessler, Alamo's sound consultant, modelled the sound from the central inverters using the Project's preliminary layout, which incorporated the 500 foot setback. (Company Ex. 15 at 2). Mr. Hessler's conclusion was that "all non-participating residences are either close to, or in the vast majority of cases, outside the 35dBA contour," which he explained "is generally considered inconsequential even in rural environments." (Id. at 2-3).

c. The Amended Joint Stipulation is in the Public Interest because it Limits the Hours of Construction Activities (Condition 13)

In his testimony, Mr. Hessler stated that "[c]onstruction noise in general would be brief in duration and would only occur during the daytime." (Company Ex. 10 at 4). Condition 13 of the Amended Joint Stipulation—which was unchanged from the original stipulation—reinforces this by limiting the hours of construction. (Joint Ex. 2 at 7). These limits are in the public interest because they prevent any noise-producing construction from occurring after daylight hours, when it may be more noticeable to nearby receptors.

d. The Amended Joint Stipulation is in the Public Interest because it requires the Preparation of a Landscape and Lighting Plan and Maintenance of Fencing in Good Repair (Condition 15)

In accordance with Staff's recommendations, the Amended Joint Stipulation requires Alamo to develop a landscape and lighting plan to address aesthetic and lighting impacts of the Project on non-participating adjoining parcels containing a residence. (Compare Staff Ex. 1 at 35, Condition 15 with Joint Ex. 2 at 9). Condition 15 in the Amended Joint Stipulation,

however, goes considerably further than Staff's recommendations. First, it requires that the landscape and lighting plan be developed in consultation with a landscape architect licensed by the Ohio Landscape Architects Board, ensuring the plan is developed by an individual who is professionally certified. (Joint Ex. 2 at 9). Second, although the Staff recommendation suggested, but did not require vegetative screening, the Amended Joint Stipulation makes clear that unless alternative mitigation is agreed upon with the owner of an adjacent non-participating parcel, then "the plan shall provide for the planting of vegetative screening," commits Alamo to ensure that at least 90% of the plantings have survived after five years, and further commits Alamo to maintain the vegetative screening for the entire life of the Project. (Id.)

The Amended Joint Stipulation also goes further than Staff's recommendations in that although Staff requested a lighting plan, the Amended Joint Stipulation mandates that any lights "shall be motion-activated and designed to narrowly focus light inward toward the facility, such as being downward-facing and or fitted with side shields." (Compare Staff Ex. 1 at 35, Condition 15 with Joint Ex. 2 at 9).

As discussed above, these measures will soften the visual impact of the Project, and, as testified by Mr. Robinson, will improve Alamo's "ability to effectively screen and mitigate the Project's visual impact." (Company Ex.16 at 3).

The Amended Joint Stipulation also includes a requirement to submit a plan describing methods of fence repair and also a requirement to maintain perimeter fencing for the Project. (Joint Ex. 2 at 9, Condition 15). This requirement will help to ensure the security of the Project, as well as minimizing any negative visual impact that may be created by a damaged fence. (Company Ex. 7 at 19).

e. The Amended Joint Stipulation is in the Public Interest because it requires Alamo to Avoid and Minimize Damage to, and Repair Drain Tile in the Project Area (Condition 16)

The Amended Joint Stipulation also includes detailed language on drainage systems (both publicly and privately maintained) and requires consultation with the County Engineer or Staff prior to repairing county maintenance/repair ditches (Joint Ex. 2 at 9, Condition 16). Specifically, Condition 16 requires that Alamo "avoid, where possible, or minimize to the extent practicable, any damage to functioning surface and subsurface field tile drainage systems and soils resulting from the construction, operation, and/or maintenance of the facility in agricultural areas, whether such drainage systems are publicly or privately maintained." (Id.) Through that condition, Alamo commits that "[d]amaged field tile systems shall be promptly repaired no later than 30 days after such damage is discovered, and be returned to at least original conditions or their modern equivalent at the Applicant's expense." (Id.) Further, Alamo is committed to working with adjoining landowners to secure all available information regarding the Project Area's drainage systems in order to effectively minimize any potential damage. (Id.; Company Ex. 17 at 2). Further, the Condition commits Alamo to determine the benchmark conditions of the affected drainage systems by measuring both surface and subsurface drainage. (Id.)

Condition 16 also requires Alamo to engage with the Preble County Engineer who, as testified by CCPC Witness Mr. Kolb, has the experience necessary to inspect tile repairs, and that the County Engineer will be timely in inspecting these repairs. (TR at 503-504).

As Mr. Waterhouse testified, the condition "continues to benefit the public interest by ensuring the protection of drain tile and existing drainage in the Project Area." (Company Ex. 17 at 2).

f. The Amended Joint Stipulation is in the Public Interest because it Requires Alamo to Develop a Vegetation Management Plan, Minimize, to the Extent Practicable, the Clearing of Wooded

Areas, and Take Steps to Avoid the Propagation of Noxious Weeds (Conditions 18 and 23)

Construction of the Project will involve only a minimal amount of tree clearing, conservatively estimated to be 1.37 acres. (Company Ex. 1 at 12; Staff Ex. 1 at 18-19). Even beyond this minimal amount of tree clearing, the Amended Joint Stipulation commits Alamo to "minimize, to the extent practicable, the clearing of wooded areas…." (Joint Ex. 2 at 11, Condition 23). As testified by Mr. Herling, clearing would be required "[i]n those situations [Alamo would] need to bury a collection line through that area, we need to take down some trees or scrub/shrub to do so while trenching for example" but that tree clearing would be minimal. (TR at 153-154).

The Amended Joint Stipulation also requires that Alamo develop a plan that includes "the steps to be taken to prevent establishment and/or further propagation of noxious weed identified in. Ohio Adm. Code 901:5-37 during implementation of pollinator-friendly plantings." (Joint Ex. 2 at 10, Condition 18). And, in fact, Alamo has already prepared a draft Vegetation Management Plan that does exactly that. (Company Ex. 19, Attachment 1 at 8). Finally, the Amended Joint Stipulation requires Alamo, to the extent practicable, to purchase seed stock from a vendor recommended by the Ohio Seed Improvement Association. (Joint Ex. 2 at 10, Condition 18). These changes are in the public interest.

g. The Amended Joint Stipulation is in the Public Interest because it Requires Alamo to Develop a Traffic Management Plan and Addresses the Road Use Maintenance Agreement with Local Authorities (Conditions 24 and 25)

The Amended Joint Stipulation requires that Alamo provide Staff with a transportation management plan and any change to the RUMA entered into between Alamo and the Preble County Board of County Commissioners, the Preble County Engineer, Gasper Township and Washington Township 30 days prior to the preconstruction conference. (Joint Ex. 2 at 11,

Condition 25). The original stipulation required Alamo to enter into a road use agreement that provides for a (a) preconstruction survey of road conditions; (b) post-construction survey of the road conditions; (c) an objective standard of repair that obligates Alamo to restore the road to equal or better condition than they were prior construction; and (d) a timetable for posting of financial bond. Condition 25 now reflects the current reality that Alamo already has entered into the required RUMA, which includes provisions meeting each of the prior requirements. (Company Ex. 19, Attachment 2 at ¶ 10 and Appendix A). As detailed above, the transportation management plan "would determine the routes that can be used by the contractor that's building the Project, and that would be shared with all of the local … authorities, as well as submitted to the Staff." (TR at 224-225).

As testified by Mr. Bonifas, the Amended Joint Stipulation ensures that the Project will not have a negative impact on local roads after Project construction and decommissioning. (Company Ex. 9 at 4). Mr. Bonifas further testified that "[r]oad use and maintenance agreements, such as the one entered into in this matter…are a common practice for large construction projects, and in [his] experience are effective at minimizing damage to local roads and ensuring repairs are made in a timely manner." (Company Ex. 19 at 4). Mr. Bonifas ultimately concluded that Condition 25 of the Amended Joint Stipulation is in the public interest. (Id. at 5)

h. <u>The Amended Joint Stipulation is in the Public Interest because it requires Alamo to Train Local EMS and Fire Organizations and Provide Specialized Equipment (Condition 27)</u>

The Amended Joint Stipulation adds Condition 27 (as did the original Joint Stipulation) to the conditions recommended by Staff. (Joint Ex. 1 at 10-11; Company Ex. 7 at 19). Condition 27 obligates Alamo to provide opportunities for training to local first responders, as well as any specialized equipment, if needed. (Id.) As Mr. Herling testified, offering this

training and equipment will help to ensure that local fire and EMS service providers are familiar with the Project and are able to effectively respond to any emergency at the Project. (Company Ex. 7 at 19). Alamo is also committed, under Condition 27, to hold safety meetings with fire and EMS service providers on an on-going basis. The addition of Condition 27 will assist local fire and EMS service providers in being prepared to respond to any emergency at the Project. (Id. at 20). Mr. Herling's testimony is especially credible on this subject because of his years of volunteer EMS experience. (TR 159).

i. The Amended Joint Stipulation is in the Public Interest because it requires Alamo to Implement a Decommissioning Plan, including Financial Assurance Requirements (Condition 28)

Alamo had already committed in its Application to put a decommissioning plan in place. (Company Ex. 1 at 37-40). But the Amended Joint Stipulation expressly requires the creation and implementation of a decommissioning plan, including financial assurance requirements. (Joint Ex. 2 at 12, Condition 28). And, to that end, Alamo has already had prepared a preliminary decommissioning plan, outlining how the Project will be returned to agricultural use at the end of its useful life and detailing the initial estimate for decommissioning costs. (Company Ex. 19, Attachment 3). As Mr. Herling testified, a decommissioning plan will ensure the Project does not become an inconvenience to the surrounding community at the end of its useful life, and will allow the Project Area to be converted to another use, including potentially returned to agricultural production. (Company Ex. 7 at 20). This testimony was confirmed by Mr. Bonifas, who likewise testified that a decommissioning plan "ensures that an effective plan can be put into place for the appropriate decommissioning of the Project so that the Project Area can be returned to another use after the end of the Project's useful life" and will benefit the public interest. (Company Ex. 9 at 5).

Condition 28 also requires Alamo to post financial security in the form of a performance

bond with the Board as obligee in order to ensure there are funds available to pay for the net decommissioning costs. (Joint Ex. 2 at 12, Condition 28). Condition 28 accounts for the expected life of the Project by requiring the net decommissioning costs to be recalculated every five years, with the bond increased accordingly. As Mr. Bonifas testified, this will "ensure that the Board has greater oversight and control over the decommissioning plan and that the plan will be adequately and appropriately funded." (Company Ex. 19 at 5).

j. The Amended Joint Stipulation is in the Public Interest because it Requires Alamo to Obtain an Ohio EPA Construction General Permit and Determine Whether Post-Construction Stormwater Best Management Practices are Required (Condition 29)

The Amended Joint Stipulation includes a new Condition, Condition 29, that requires Alamo to obtain a General Construction Permit if one or more acres of ground are disturbed. (Joint Ex. 2 at 12, Condition 29). This new condition serves the public interest because the General Construction Permit will require Alamo to perform pre- and post-construction stormwater calculations to determine if any post-construction best management practices are required. (Id.; TR 667). In addition, Alamo will submit those calculations, along with a copy of any stormwater submittals made to the Ohio EPA, to the Preble County Office of Land Use Management and the Preble Soil & Water Conservation District. (Joint Ex. 2 at 12, Condition 29). As Mr. Marquis testified, this condition "will help to ensure that post-construction stormwater flows are appropriately managed," and, if post-construction measures are required, this condition ensures they will be designed in accordance with Ohio EPA regulations. (TR at 665).

k. The Amended Joint Stipulation is in the Public Interest because its Signatories are the Elected Officials and Appointed Bodies that Represent the Public in the Project Area

While CCPC seeks to stop the Project, CCPC's local public representatives have recognized the benefits to the public, and, in recognition of those benefits, are signatories to the Amended Joint Stipulation. (Joint Ex. 2 at 21-22). The public entities that have signed the Amended Joint Stipulation are:

(1) The Preble County Commissioners;

(2) The Preble County Engineer;

(3) The Preble Soil & Water Conservation District;

(4) The Board of Trustees of Gasper Township;

(5) The Board of Trustees of Washington Township; and

(6) The Preble County Planning Commission.

(Id.) Their support and signing of the Amended Joint Stipulation are indicative of the balancing of interests in the negotiations about the Project. The Amended Joint Stipulation is in the public interest, and being the result of extensive negotiations and not violating any regulatory principle or policy, should be approved.

VI. CONCLUSION

The Project is supported by six separate local government entities. It is supported by the Ohio Farm Bureau Federation. It is supported by Staff. It is supported by the hundreds of pages of information that Alamo introduced into the record through the Application and associated exhibits, the Supplement, and the testimony of expert witnesses with years of experience in their respective fields. All of which supports a finding by the Board that Alamo has provided evidence satisfying each of the criteria set forth in Section 4906.10(A), Revised Code, and that the Amended Joint Stipulation meets the Board's three-prong test. Alamo's application for a

Certificate should be granted subject to the recommended conditions contained in the Amended Joint Stipulation, without modification.

Respectfully submitted,

/s/ Michael J. Settineri
Gretchen L. Petrucci (0046608)
Clifford W. Lauchlan (0092357)
VORYS, SATER, SEYMOUR AND PEASE LLP
52 East Gay Street
P.O. Box 1008
Columbus, Ohio 43216-1008
(614) 464-5462
(614) 719-5146 (fax)
mjsettineri@vorys.com
glpetrucci@vorys.com
cwlauchlan@vorys.com
Attorneys for Alamo Solar I, LLC

CERTIFICATE OF SERVICE

The Ohio Power Siting Board's e-filing system will electronically serve notice of the filing of this document on the parties referenced in the service list of the docket card who have electronically subscribed to this case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being served upon the persons below via electronic mail this 9th day of December 2020.

/s/ Michael J. Settineri

Werner Margard
werner.margard@ohioattorneygeneral.gov

Kathryn West
kwest@prebco.org

Thaddeus Boggs
tboggs@fbtlaw.com

Leah Curtis
lcurtis@ofbf.org

Jack Van Kley
jvankley@vankleywalker.com

W. Joseph Scholler
jscholler@fbtlaw.com

Chad Endsley
cendsley@ofbf.org

Amy Milam
amilam@ofbf.org

Chris Walker
cwalker@vankleywalker.com

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