BEFORE
THE OHIO POWER SITING BOARD

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

APPLICATION FOR REHEARING OF CITIZENS OF PREBLE COUNTY, LLC, ERIC AND KELLY ALTOM, MARY BULLEN, CAMDEN HOLDINGS, LLC, JOHN AND JOANNA CLIPPINGER, JOSEPH AND LINDA DELUCA, DONN KOLB AS THE TRUSTEE FOR THE DONN E. KOLB REVOCABLE LIVING TRUST, DORIS JO ANN KOLB AS THE TRUSTEE FOR THE DORIS JO ANN KOLB REVOCABLE LIVING TRUST, KENNETH AND ELAINE KOLB, JAMES AND CARLA LAY, CLINT AND JILL SORRELL, JOHN AND LINDA WAMBO, JOHN FREDERICK WINTER, AND MICHAEL AND PATTI YOUNG

Pursuant to R.C. 4903.10 and Ohio Administrative Code ("OAC") 4906-2-32(A), the above-named intervenors (hereinafter collectively referred to as "Citizens" or "Concerned Citizens") apply for rehearing in this case. As their grounds for rehearing, the Citizens submit that the Opinion, Order, and Certificate ("Opinion") of the Ohio Power Siting Board ("Board") dated June 24, 2021 is manifestly against the weight of the evidence, is so clearly unsupported by the record as to show misapprehension, mistake, or willful disregard of duty, fails to show in sufficient detail the facts in the record upon which the Opinion is based and the reasoning followed in reaching its conclusion, and is unlawful and unreasonable for the following reasons:

The Board did not find and determine the nature of the probable environmental impact of the Alamo Solar I wind project ("Project" or "Facility") under R.C. 4906.10(A)(2), because Alamo Solar I, LLC ("Alamo") failed to provide the information in the evidentiary record required by the Board's rules necessary to make such a finding and determination.

The Board erred in finding and determining that the Project 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, pursuant to R.C. 4906.10(A)(3).

All of the paragraphs in this Application for Rehearing below are examples of the Board's failures to comply with R.C. 4906.10(A)(2), (3), and (6).

The Board erred by not requiring Alamo to submit the simulations, plans for installing and maintaining vegetative barriers, adequate setbacks, and other mitigation measures, and other information pertaining the Project's visual impacts required by OAC 4906-4-08(D)(4)(a), (e), and (f).

The Board erred by not requiring Alamo to submit the locations of lights, vegetation plans and other mitigation measures, and other information pertaining to the Project's light pollution required by OAC 4906-4-08(D)(4) and OAC 4906-4-08(D)(4)(f).

The Board erred by not requiring Alamo to submit measurements or modeling of the operational noise from inverters expected at the nearest property boundary and at residences, and by not requiring Alamo to submit adequate setbacks, other mitigation measures, and other information pertaining to the Project's inverter noise that is required by OAC 4906-4-08(A)(3)(b), (c), and (d).

The Board erred by not requiring Alamo to submit information on equipment and procedures adequate to mitigate noise from constructing the Project as required by OAC 4906-4-08(A)(3)(d).

The Board erred by not requiring Alamo to submit information on mitigation procedures and avoidance of damage to field tile systems as required by OAC 4906-4-08(E)(2)(c).

The Board erred by not requiring Alamo to submit information on equipment and measures to be taken to prevent criminal access to the Project as required by OAC 4906-4-08(A)(1).

The Board erred by not requiring Alamo to submit information on groundwater and surface water impacts from contaminants released by solar panels, as required by OAC 4906-4-08(A)(4).

The Board erred by not requiring Alamo to submit information on emergency plans as required by OAC 4906-4-08(A)(1)(e).

The Board erred by not requiring Alamo to submit information to determine whether proposed setbacks from public roads are adequate to allow motorist visibility at road intersections.

The Board erred by not requiring Alamo to submit information on mitigation measures to protect vegetation and control noxious and invasive weeds as required b y OAC 4906-4-08(B)(3), OAC 4906-4-08(B)(2), and OAC 4906-4-08(E)(2)(c).

The Board erred by not requiring Alamo to submit literature searches and field surveys of plants and animals as required by OAC 4906-4-08(B)(1)(c) and (d).

The Board erred by not requiring Alamo to submit information to assess, avoid, and mitigate impacts on wildlife as required by OAC 4906-4-08(B)(3).

The Board erred by not requiring Alamo to submit information on flooding, drainage, and quantity of flows during construction and operation as required by OAC 4906-4-07(C).

The Board erred by not requiring Alamo to submit information on pollution, erosion, and water quality of surface water flows as required by OAC 4906-4-07(C).

The Board erred by not requiring Alamo to submit estimates of the quantities of solid waste as required by OAC 4906-4-07(D).

The Board erred by not requiring Alamo to submit information about mitigation of traffic impacts as required by OAC 4906-4-06(F)(4).

The Board erred in finding that the Project will have minimal adverse impact on agricultural land.

The Board erred by not requiring Alamo to provide wider setbacks between solar facilities and neighboring properties and homes.

The Board erred in ruling that the evidentiary record contains enough information for the Board to find and determine the nature of the Project's probable environmental impact under R.C. 4906.10(A)(2), to find and determine that the Project represents the minimum adverse impact under R.C. 4906.10(A)(3), and to find and determine whether the Project will serve the public interest, convenience, and necessity under R.C. 4906.10(A)(6), with respect to the Project's visual impacts, light pollution, inverter operational noise, construction noise, damage to field tile systems, criminal damage, surface water impacts from contaminants released by solar panels, emergency response planning, motorist safety from lack of visibility at road intersections, damage to vegetation, the propagation of noxious and invasive weeds, damage to and from wildlife, flooding, drainage, and quantity of flows, pollution, erosion, and water quality of surface water flows, solid waste pollution, traffic impacts and congestion, loss of agricultural land, and inadequate setbacks between solar facilities and neighboring properties and homes.

The Board erred in finding and determining that the Project represents the minimum adverse impact under R.C. 4906.10(A)(3) and will serve the public interest, convenience, and necessity under R.C. 4906.10(A)(6), because such findings and determinations are inconsistent

with the adverse effects of the Project's visual impacts, light pollution, inverter operational noise, construction noise, damage to field tile systems, criminal damage, surface water impacts from contaminants released by solar panels, emergency response planning, motorist safety from lack of visibility at road intersections, damage to vegetation, the propagation of noxious and invasive weeds, damage to and from wildlife, flooding, drainage, and quantity of flows, pollution, erosion, and water quality of surface water flows, solid waste pollution, traffic impacts and congestion, loss of agricultural land, and inadequate setbacks between solar facilities and neighboring properties and homes.

The Board erred by delegating its duties to the Staff and other governmental agencies for approving post-certificate plans and submittals, which unfairly undermines the purpose of the evidentiary hearing, relieves Alamo of its burden of proof during the adjudication, circumvent the Board's application of the statutory criteria under R.C. 4906.10(A), circumvent statutory rights of public participation and public notice, and deprive the intervenors of due process.

The Board erred by finding the Amended Stipulation to be in the public interest and by approving it.

The basis for this Application for Rehearing and more detailed descriptions of the Board's errors are set forth in the attached Memorandum in Support, which is incorporated in its entirety as part of this Application for Rehearing.

Respectfully submitted,

/s/ Jack A. Van Kley_____
Jack A. Van Kley (0016961)
Van Kley & Walker, LLC
132 Northwoods Blvd., Suite C-1
Columbus, Ohio 43235
(614) 431-8900 (telephone)
(614) 431-8905 (facsimile)
Email: jvankley@vankleywalker.com

MEMORANDUM IN SUPPORT

I. Alamo Solar's Lack Of Due Diligence And Failure To Communicate With The Persons Adversely Impacted By Its Solar Facility Have Resulted In An Incomplete Project Design.

On December 10, 2018, Alamo Solar I, LLC ("Alamo") submitted an application for a certificate to construct and operate a solar-powered electric generation facility ("Facility" or "Project") within about 1002 acres of land (the "Project Area") in Gasper and Washington Townships in Preble County, Ohio. Company Exhibit 1, Application ("Applic."), pp. 1, 5. On January 31, 2019, Alamo filed a supplement to its original application. Hereinafter, the original application and its supplement will be referred to as the "Application."

The proposed Facility is not a typical, benign collection of solar panels that might be installed on the roofs of homes or in school yards. Alamo proposes to convert up to 919 acres, most of which is prime farmland used for food production, into this industrial facility. *Id*. at pp. 6, 92. Arrays of solar panels will be grouped into large clusters called "solar fields" that will cover entire farm fields of 40 to 300 acres in size. Herling, Tr. I 40:5-8, 55:4-7.[1]

Of the prime farmland to be lost to this project, 505 acres is located in an agricultural district. Applic., pp. 6, 92; Bellamy, Tr. III 521:13-24. An agricultural district is farmland that has been set aside exclusively for agricultural purposes, in exchange for tax benefits. Bellamy, Tr. III 520:4-9. The goal of this arrangement is to encourage farmland preservation. *Id*. at 520:10-16. Notwithstanding that commitment, the landowners in the Project Area have agreed to lease this land for Alamo's industrial facility for 40 years.

This Facility threatens the quality of life and livelihood of nearby residents, including the Concerned Citizens of Preble County ("CCOPC") and its members who have intervened in this

[1] Citations to the transcript of the hearing are abbreviated as "Tr." following the last name of the witness whose testimony is being cited.

case (collectively, the "Concerned Citizens" or "Citizens"). The Facility threatens to expose them to unsightly views, intrusive lighting, noise, crop and livestock destruction by wildlife, loss of wildlife, noxious and invasive weeds, flooding and wet fields, drainage tile damage, sedimentation of streams, crime, road obstructions, and other hazards.

The Concerned Citizens are 67 persons and companies that live, work, and own property in communities that will be harmed by the Alamo and Angelina solar projects if constructed. CCOPC Exh. 2, Direct Testimony of Joanna Clippinger ("Clippinger Testimony"), p. 2, A.7 and A.8. Seventeen of the citizens are located adjacent to the proposed Alamo Project Area. *Id*. at p. 4, A.11, p. 3, A.10, and Exh. A (map of their locations); Clippinger, Tr. III 493:6-8. Twelve of them would be bordered on two or three sides by Alamo's solar panels. *Id*. at Exh. A. Joseph and Linda DeLuca bought land that is now bordered on three sides by the Project Area, on which they had hoped to build a retirement home and use as a retirement investment. CCOPC Exh. 3, Direct Testimony of Joseph DeLuca ("DeLuca Testimony"), p. 2, A.6.

The most troubling aspect of this case is the scarcity of information in the Application for evaluating the project's threats and for identifying measures to avoid or minimize these threats. To a large extent, the Facility's impacts are unknown, because the Application does not accurately or adequately evaluate them. While the conditions proposed in an Amended Stipulation filed by some of the parties seek to fill in some of this missing information by requiring Alamo to submit numerous studies and plans to the Staff after the certificate is issued, that approach is an insufficient substitute for informed decision-making on whether to grant the certificate and what conditions to include in it. This approach also is unlawful, as explained later in this brief.

This project has been plagued by Alamo's lack of transparency since its beginning stages. While Alamo discussed its Project early and often with local officials to enlist their support for the project and solicited landowners of farmland it wanted to lease, it made no effort to inform the citizens who would bear the brunt of the harm from the project until such time as OPSB's rules required this communication.

Alamo had its first meeting with local officials in March 2017, when it met with the Economic Development Board. Herling, Tr. I 21:21-23. Alamo met privately with the Board's Staff in mid-2018 to discuss the project. Herling, Tr. I 23:16 to 24:2. Alamo sent letters to some landowners from 2016 to 2018 asking them to lease their land for the project. Herling, Tr. I 24:20 to 25:6. But, unless Alamo wanted to lease the landowners' land, it did not bother to provide them with information about the project until required by the Board's rules to do so in the third quarter of 2018. Herling, Tr. I 25:7-24. Generally, Alamo did not send letters or make other contact informing neighbors about the Project before required by the Board's rules, except for letters sent to people with whom they wanted to negotiate leases. Herling, Tr. I 114:6-14.

Alamo's reluctance to communicate with the Project's neighbors has resulted in an evidentiary record that is wholly deficient in the details necessary to identify and deal with the threats to the neighbors. A couple of examples illustrate this point. Because Alamo has not worked out arrangements with neighbors for screening their homes and land from the objectionable sights of mammoth arrays of solar panels and annoying exterior lighting, the record contains no meaningful, enforceable commitments to protect the neighbors against these intrusions. And if Alamo had solicited advice from its farming neighbors, it would have known to include procedures to prevent the propagation of noxious and invasive weeds that could spread from the Facility to adjoining farm fields and natural areas. The result of Alamo's lack of due

diligence is a record filled with generic unenforceable promises instead of specific, legally enforceable commitments for mitigation. The large number of concerns raised by the Concerned Citizens is the inevitable outgrowth of Alamo's incomplete investigation of the Project's adverse impacts, its failure to design and commit to mitigation for these impacts, and its lack of communication with the citizens affected by its project.

Rather than becoming more forthcoming with information, Alamo and the Staff have now collaborated on a scheme to insulate the public from involvement and input into many of the issues posed by the Project. Because the evidentiary record lacks the necessary detail on project threats and mitigation, these parties have proposed stipulated conditions that would allow them to fill the gaps with 12 post-certificate studies that will be proposed and approved without public involvement.

II. The Amended Stipulation Is An Unlawful Attempt To Circumvent The Board's Statutory And Regulatory Mandates For A Complete Evidentiary Record So That Citizens Can Provide Meaningful Input On Siting Decisions That Affect Them.

As explained in Section III below, the evidentiary record is missing many of the studies and information needed to evaluate the Facility's threats and the mitigation of those threats. Seeking to compensate for the record's deficiencies, Alamo, the Staff and other parties filed a Joint Stipulation and Recommendation on July 5, 2019 ("original Stipulation") designed to allow them to fill the gaps with post-certificate plans and studies that would be proposed and approved in secret. The Board then held an adjudicatory hearing from July 17-19, 2019 ("original hearing"), and the parties thereafter filed their post-hearing briefs.

On July 31, 2020, one year after the original hearing, Alamo filed a motion to reopen the record, along with a "Restated and Amended Joint Stipulation and Recommendation" ("Amended Stipulation"). The Amended Stipulation tried to compensate for the lack of

information in the record by requiring 12 other studies and plans to be performed after certification: (1) detailed engineering drawings of final project design under Condition 3; (2) any changes to project layout after the submission of final engineering drawings under Condition 4; (3) a public information program under Condition 9; (4) a modification or mitigation plan for avoiding cultural resources or minimizing impacts on them under Condition 14; (5) a landscape and lighting plan under Condition 15; (6) a Storm Water Pollution Prevention Plan under Condition 16; (7) a vegetation management plan under Condition 18; (8) a construction access plan under Condition 22; (9) a final traffic plan under Condition 24; (10) a transportation management plan under Condition 25; (11) a comprehensive decommissioning plan under Condition 28; and (12) pre- and post-construction stormwater calculations under Condition 29. Jt. Exh. 2, pp. 6-12. So the Amended Stipulation requires Alamo to perform and submit 12 studies to the Staff after the certificate is issued, instead of properly testing them in the adjudicatory process.

On October 26, 2020, OPSB held a supplemental hearing ("supplemental hearing") to receive testimony on the Amended Stipulation. During this hearing, Alamo's acoustics expert David Hessler submitted testimony about a noise study he had conducted after the original hearing to model the sound from the Facility's central inverters, which was intended to fill the information gap left by the absence of an inverter noise study in the Application. A contour map of projected noise levels from central inverters was attached to David Hessler's supplemental testimony. Co. Exh. 15, Exh. DMH-S1.

By the time of the supplemental hearing, Alamo had completed a number of studies and plans that had been slated for completion after the original stipulation. However, the Amended Stipulation, and the Board's Opinion adopting the Amended Stipulation, do not require Alamo to

comply with these studies or plans. Because Alamo is free to completely disregard these studies and plans in finishing the Project design, the Board cannot rely on them to determine whether the Project complies with the criteria in R.C. 4906.10(A). The supplemental testimony of Douglas Herling (Co. Exh. 14) included attachments consisting of a preliminary site plan (Attachment DH2), a letter from the Ohio State Historic Preservation Office about Alamo's proposed cultural resources survey (Attachment DH3), a complaint resolution program (Attachment DH4), and a road use and maintenance agreement (Attachment DH5), none of which were made binding on Alamo by the Amended Stipulation. The supplemental testimony of Mathew Robinson included a preliminary landscape plan for mitigating the Facility's visual impacts on the neighborhood. Co. Exh. 16, Attachment 1. Mr. Robinson's testimony stated that the preliminary landscape plan is subject to revision prior to finalization after Facility certification. *Id*., p. 5, lines 4-6. The supplemental testimony of Mark Bonifas included a preliminary vegetation management plan, which is subject to revision. Co. Exh. 19, Bonifas Testimony, Attachment 1; Co. Exh. 16, Herling Testimony, p. 5, lines 4-6. The supplemental testimonies are not part of the Application. Conway, Tr. IV 682:7-12. The Amended Stipulation does not require Alamo to follow any of these studies or plans, nor does the Amended Stipulation require Alamo to incorporate any of their language into the final studies and plans submitted pursuant to the Amended Stipulation.

OAC Chapter 4906-4 describes the information that the Board must obtain, and the applicant must supply, in order to determine whether the criteria of R.C. 4906.10(A) have been met. In this case, the evidentiary record does not contain much of the information required by OAC Chapter 4906-4, and the Board cannot issue a certificate without an evidentiary record containing this information. An administrative agency such as OPSB is required to follow its own rules, as well as applicable statutes. *State ex rel. Cuyahoga Cty. Hosp. v. Ohio Bureau of*

Workers' Comp., 27 Ohio St.3d 25, 27–28 (1986); *Parfitt v. Columbus Corr. Facility*, 62 Ohio St.2d 434, 436 & 437 (1980). The rules being violated are designed to benefit the Concerned Citizens by providing them with the information about the Project that they need to provide the Board with input on an Alamo Facility that could seriously impact them, and the Citizens are prejudiced by OPSB's failure to comply with these authorities. Cf., *id*., at 436-37.

The Concerned Citizens' rights to vet Alamo's studies through the application and adjudicatory process, including a review of the study, receiving a Staff investigation and Staff Report, conducting discovery, submitting comments at the public comment session of the hearing, and participating in the adjudicatory session of the hearing, will be bypassed by the Amended Stipulation's acquiescence to receiving studies only for Staff review and approval after this case has ended. The post-certificate studies will not be submitted to the public for review and comment, nor will they be subject to adjudication.

An example of this principle is Alamo's argument that the Board does not need the water quality data required by rule to determine whether soil erosion from construction will pollute the streams, because the Project supposedly will involve only a small amount of grading. However, without the water quality data, the Board cannot tell how much sediment will be washed into the streams or whether this sediment will damage the streams. The Board must base its conclusion on data that it independently evaluates, not on a blanket assertion from a self-interested applicant that stream pollution will not be a problem. The record contains so little empirical evidence on this issue and many other issues that the Board cannot make an informed judgment as to whether the criteria of R.C. 4906.10(A) have been met. Compliance with the rules is necessary to provide this evidence, and Alamo has fallen well short of that goal in many ways.

III. The Evidentiary Record Lacks The Information Required By The Board's Rules, The Board Has Erred In Determining That It Has The Information Necessary To

Find And Determine The Nature Of The Project's Probable Environmental Impact Under R.C. 4906.10(A)(2), The Board Has Erred In Opining That The Project Represents The Minimum Adverse Impact Under R.C. 4906.10(A)(3), And The Board Has Erred In Opining That The Project Will Serve The Public Interest, Convenience, And Necessity Under R.C. 4906.10(A)(6).

R.C. 4906.10(A)(3) prohibits OPSB from issuing a certificate, unless "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." Emphasis added. The dictionary meaning of "minimum" is "the least quantity assignable, admissible, or possible." See the Merriam-Webster Dictionary, found online at https://www.merriam-webster.com/dictionary/minimum. Thus, Alamo does not satisfy its obligations by just somewhat reducing the adverse impacts of its facility. Alamo must reduce the impacts to the least amount possible considering the state of available technology, the nature and economics of the various alternatives, and other pertinent considerations. As explained below, Alamo has not demonstrated that its Project achieves the minimum adverse environmental impact with respect to the many harms that the Project will cause. Alamo also has not provided the information required by the Board's rules that is necessary for the Board to determine the nature of the Project's probable environmental impact. Finally, the company has not demonstrated that the Project will serve the public interest, convenience, and necessity.

A. With Respect To Visual Impacts, (1) The Evidentiary Record Does Not Contain The Data On The Project's Visual Impacts And Mitigation Measures Required By OAC 4906-4-08(D)(4), (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to visual impacts, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the

Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

1. The Board's Rule Requires The Evidentiary Record To Describe The Visual Impact Of The Facility And To Describe The Measures That Will Taken To Minimize The Facility's Adverse Visual Impacts.

OAC 4906-4-08(D)(4) provides:

> (4) Visual impact of facility. The applicant shall evaluate the visual impact of the proposed facility within at least a ten-mile radius from the project area….The applicant shall:
>
> (a) Describe the visibility of the project, including a viewshed analysis and area of visual effect, shown on a corresponding map of the study area. The viewshed analysis shall not incorporate deciduous vegetation, agricultural crops, or other seasonal land cover as viewing obstacles.
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> ****
>
> (e) Provide photographic simulations or artist's pictorial sketches of the proposed facility from public vantage points that cover the range of landscapes, viewer groups, and types of scenic resources found within the study area. The applicant should explain its selection of vantage points, including any coordination with local residents, public officials, and historic preservation groups in selecting these vantage points.
>
> (f) Describe measures that will be taken to minimize any adverse visual impacts created by the facility, including, but not limited to, project area location, lighting, turbine layout, visual screening, and facility coloration. In no event shall these measures conflict with relevant safety requirements.

Emphasis added. The Application violates this rule in two respects. First, its simulations do not accurately portray the Facility. Second, it makes no commitments for mitigation measures that will be taken to minimize adverse visual impacts, even though the rule requires that the applicant describe the "measures that will be taken." Nothing in the evidentiary record fills these information gaps. These deficiencies are more specifically addressed below.

2. The Evidentiary Record Does Not Adequately And Accurately Describe The Facility's Visual Impacts.

The Facility, if approved, would impose a serious blight on the scenic views in Preble County. Figure 7, Sheet 2 of the viewshed analysis shows that the solar equipment will be potentially visible for most of the area surrounding the Project Area. *See* the green colored area around the Project Area in this figure. Applic., Exh. I. And this figure is based on the assumption that no one can see the equipment if vegetation is higher than five feet, six inches tall, even though the panels may be as high as 14 feet. Robinson, Tr. II 346:16-24, 348:3-24. The Application states the panels may be as high as 15 feet. Robinson, Tr. II 353:20-23. The fences around the solar equipment will take the form of a 7-foot tall chain link fence or a 6-foot tall chain link fence with three strands of barbed wire at the top, bringing the total height to 7 feet. Applic., Exh. I, p. 14.

The Project will potentially be visible from 73.4 % of the area within a half mile of the project, even if obstacles of vegetation, structures and topography are taken into consideration. Robinson, Tr. II 364:23 to 365:2; Applic., Exh. I, p. 22, Table 1. This is of particular concern to the Concerned Citizens, as evidenced by Joanna Clippinger's testimony that "[s]eeing hundreds of acres of solar panels near our properties and on nearby public roads will spoil the visual and aesthetic enjoyment of living and working there." CCPC Exh. 2, Clippinger Testimony, p. 4, lines 11-13. Alamo's viewshed report advises that, within a half mile, "a viewer is able to perceive details of an object with clarity. Surface textures, small features, and the full intensity and value of color can be seen on foreground objects." Applic., Exh. I, p. 18. The Facility equipment will potentially be visible from 26.3% of the area between a half mile and one mile. Robinson, Tr. II 365:3-6. *See* Exh. I, p. 22, Table 1.

The neighbors within a half mile of the Project will bear the brunt of its visual impacts. Answer 8 of Robinson's initial testimony states: "Visual simulations from selected viewpoints

where the Project is proposed in open agricultural fields adjacent to the viewer, indicate a high degree of visibility and appreciable visual contrast with the existing landscape." "The effect really is for adjacent properties….For adjacent resources or adjacent public roadways, seeing panels in the field is certainly going to be a contrast to what is used to being seen." Robinson, Tr. II 355:16-20. The Amended Stipulation drives this point home, establishing a setback of a mere 25 feet between the solar facility and neighbors' yards and land and only 150 between the solar facility and neighbors' houses. Jt. Exh. 2, p. 6, Condition 3.

Alamo's Application employs deceptive techniques in an attempt to conceal the Project's adverse visual impacts. Alamo did not bother to correct these misleading tools during the hearings. The Board's Opinion lets Alamo get away with this misconduct, even though it violates the Board's rules.

For example, Alamo attempts to disguise the Project's actual visual impact by focusing on its visibility between a half mile and five miles, instead the dominant area of concern within a half mile where the solar equipment is visible from 73.4% of the area. Of course, the views within a half mile are of the greatest concern to the Concerned Citizens, since that is where they live and farm. Even the Application admits that the visual effect will be "adverse" when largely unscreened and viewed in the immediate foreground. Applic., p. 89. Alamo's statistics for the percentage of viewers impacted at longer distances are a rank attempt to divert the Board's attention from the Project's actual visual impacts within a half mile. The Board's Opinion (at Page 57) erroneously follows the same approach, repeating Alamo's statistics about visibility beyond a half mile without mentioning the visibility within a half mile.

The Board's Opinion states (at Pages 57-58) that Condition 15 will mitigate and limit the visual impact of the Project by requiring the preparation of a landscape plan. The short setbacks provided in the Application aggravate the situation by allowing solar fences and equipment to be placed right next to non-participants' properties. Alamo proposes to install fences and equipment only 25 feet and 40 feet respectively from the edge of public roads. Applic., p. 54. Condition 3 does little to correct this intolerable situation, allowing ridiculously short setbacks of 25 feet between solar fences and neighbors' yards/land and 150 feet between solar equipment and neighbors' houses. Not many plants with a size providing screening can fit into a space of 25, 40, or 150 feet. And, in fact, Condition 15 does not require any screening whatsoever in the 25-foot and 40-foot setbacks, and only ambiguously requires planting between the Project and neighbors' homes "to enhance the view from the residence and be in harmony with the existing vegetation and viewshed in the area." At these short distances and with the foregoing vague directive, the neighbors will have no respite from the views of solar panels and fences.

The preliminary landscape plan attached to Mr. Robinson's supplemental testimony provides additional pictorial evidence of just how starkly visible the residents' views of the solar project will be from their homes unless effective mitigation is provided. Co. Exh. 16, Robinson Suppl. Testimony, Attachment 1. Section 5.0 of the preliminary landscape plan is an aerial photograph of the entire Project Area showing locations, depicted as green dots, of many residences throughout and surrounding the Project Area with potential views of the solar fields. *Id*., pp. 12-13. Section 6.0 of the preliminary plan contains aerial photographs of three non-participating residential properties abutting solar fields. *Id*., pp. 15-17. The aerial photographs show that three of these homes and their yards have close, unobstructed views of solar panels. *Id*. The descriptions for each of these three properties echo this fact, stating: "Residence

adjacent to proposed solar array field, no existing hedgerow" and "Open views towards agricultural field with solar panel array". *Id*.

Alamo's statistics on the percentage of the surrounding area having views of the Facility were reasonably based on the visibility of 14-foot solar panels. However, the visual simulations set forth in Section 3.3.2 and Figures 11 and 13 of visual resource assessment are deceptively based on eight-foot tall panels. Robinson, Tr. II 349:13 to 350:5; Applic., Exh. I, pp. 28-33, and Figures 11 & 13 at pdf pp. 61-70. Fifteen-foot panels are a probable feature of the Facility, as revealed by the preliminary site plan attached to Mr. Herling's supplemental testimony depicting the solar panels to be a maximum of 15 feet high. Co. Exh. 14, Attachment DH2, Sheet C.601, pdf p. 70. The Application provides Alamo with the option to install solar panels that are up to 15 feet high, so the simulations must portray them at that height in case Alamo installs panels of that height. Otherwise, these simulations do not accurately portray the public's views of the Facility's equipment and structures. These simulations do not comply with the mandate in OAC 4906-4-08(D)(4)(e) for photographic simulations or artist sketches to show the Board and public what the Facility will look like.

In addition, Condition 3 provides for ridiculously short setbacks of 25 feet between solar fences and neighbors' yards/land and 150 feet between solar equipment and neighbors' houses. Based on these setbacks, the record does not contain the "photographic simulations or artist's pictorial sketches of the proposed Project from public vantage points that cover the range of landscapes, viewer groups, and types of scenic resources found within the study area" required by OAC 4906-4-08(D)(4)(e). The photographic simulations in the Application's Visual Resource Assessment do not depict the views from these setbacks. Figure 9 of the assessment shows views from 300, 600, and 900 feet away, but not from 25 or 150 feet away. Applic., Exh.

I, pdf p. 59. Figure 11 of the assessment simulates a distant view of the solar panels and fence adjacent to a resident's backyard, but portrays the solar equipment from the vantage point of someone standing on the public road to the front and side of the resident's yard, with a soybean field between the road and the yard, rather than the up-close view the resident will be forced to endure from the house or the backyard. *Id*., p. 31 & pdf p. 66. None of simulations depicts the yard of the unfortunate residents whose yards will be surrounded on two or three sides by solar panels. Moreover, because Alamo could decide to install 15-foot high solar panels as allowed by the Application, these simulations fail to portray the panels' appearance at elevations of eight feet above the seven foot fences at the close distances allowed by the setbacks in Condition 3. Since the panels may be as high as 15 feet, the eight-foot simulations do not accurately portray the public's views of the Project's equipment and structures that will tower above the short plants in front of them. The simulations should have shown the panels to be almost double the height as inaccurately depicted in the simulations. If Alamo had decided for sure to install eight-foot panels, then it should have and undoubtedly would have stated as such in the Application or Amended Stipulation. A 15-foot solar panel is more intrusive and imposing than an eight-foot panel, and the simulations must accurately depict the appearance of the tallest model that the Application is applying for permission to use. These simulations do not comply with the mandate in OAC 4906-4-08(D)(4)(e) for photographic simulations or artist sketches to show the Board and public what the Project will look like.

Alamo's visual simulations fail to show the ugly, imposing views of the 15-foot (or eight-foot) solar equipment that nonparticipating residents will have from only 25 feet and 150 feet away in their yards and houses. The visual impact assessment contains no simulations depicting the view of solar panels 25 feet from the yard or 150 feet from the house of the unfortunate

residents whose yards will be surrounded on two or three sides by solar panels. Based on these setbacks, the record does not contain the "photographic simulations or artist's pictorial sketches of the proposed Project from public vantage points that cover the range of landscapes, viewer groups, and types of scenic resources found within the study area" required by OAC 4906-4-08(D)(4)(e). By requiring an applicant to "cover the range of landscapes, [and] viewer groups" (emphasis added), OAC 4906-4-08(D)(4)(e) requires simulations from the perspective of every "viewer group" exposed to Project views. The term "range" means "the amount, number, or type of something between an upper and a lower limit." See the Cambridge Dictionary, found online at https://dictionary.cambridge.org/us/dictionary/english/range. This language requires Alamo to "cover the" range, *i.e.*, cover the entire range, of landscapes, viewer groups, and scenic resources. At the very least, the worst-case view in that range must be simulated, and that was the view that Alamo deceptively omitted from the Application and the record. The rule does not give Alamo leave to skip the landscapes, viewer groups, and scenic resources that will suffer the greatest visual impacts from the Project. The photographic simulations in the Application's Visual Resource Assessment do not depict the views from these setbacks. Figure 9 of the assessment shows views from 300, 600, and 900 feet away, but not from 25 or 150 feet away. Applic., Exh. I, pdf p. 59. OAC 4906-4-08(D)(4)(e) requires simulations from the perspective of every "viewer group" exposed to Facility views. The residents within 25 feet or 150 feet are important "viewer groups" whose vantage points are not represented in the simulations. This information is important for evaluating the Facility's adverse impact on them. To allow Alamo to simulate only the least impacted views would defeat the rule's purpose of enabling the Board to evaluate the extent of the Project's impacts.

Yet, Alamo attempts to circumvent this purpose by providing just four simulations: Simulations 1, 2, 3, and 4 show solar panels along public roads from the vantage point of motorists driving on the roads; Simulation 5 depicts a distant solar field across a large soybean field from the vantage point of a public road; and Simulation 4 displays a distant view of a substation from the vantage point of motorists driving on the road. Applic., Exh. I, pp. 28-33 & Fig. 11 & 13, pdf pp. 61-70. The simulations include no views from nearby residences located within 150 feet of solar fences or people's yards located 25 feet from solar fences. The simulations omit the most impacted viewer group (residents living nearby) and the most impaired landscape and scenic resources (these residents' views from their houses and yards). These simulations ignore the plight of the persons who will be the most impacted by the negative visual views.

These omissions are even the more egregious in light of the Application's repeated admissions that the Project will have severe adverse impacts on nearby residents, stating:

> Foreground: 0 to 0.5 mile. At these distances, a viewer is able to perceive details of an object with clarity. Surface textures, small features, and the full intensity and value of color can be seen on foreground objects.

Co. Exh. 1, Application, at Exh. I, p. 18. The Application also admitted:

> Local Residents: Local residents include those who live and work within the visual study area. They generally view the landscape from their yards, homes, local roads and places of employment. . . . Except when involved in local travel, residents are likely to be stationary and have frequent or prolonged views of the landscape. Local residents may view the landscape from ground level or elevated viewpoints (typically upper floors/stories of homes). Residents' sensitivity to visual quality is variable, however, it is assumed that residents may be more sensitive to changes in particular views that are important to them.

Co. Exh. 1, Application, at Exh. I, p. 19.

The absurdly short setbacks for the Project, including a 25-foot setback for solar fences from nonparticipating neighbors' land and a mere 150 feet between solar fences and neighbors'

houses proposed by the Amended Stipulation, guarantee that the Project will be highly and annoyingly visible. At these short distances, the Project's neighbors will have no respite from the solar panels and fences. Alamo's position that the neighbors should be happy with the expansion of the setback between solar fences and non-participants' yards/land from 10 feet in the Application to 25 feet in the Amended Stipulation is contrary to common sense. No one can seriously believe that a family with currently open, scenic views from its yard will not be adversely affected by chain-link/barbed wire fences located only a garage's length away on one, two or even three sides of its yard.

Accurate and complete simulations are important visual aids for evaluating the Project's adverse impact on its neighbors. Alamo's failure to provide these simulations violates OAC 4906-4-08(D)(4)(e) and deprives the Board of information it needs to ascertain determining "[t]he nature of the probable environmental impact" of the project as required by R.C. 4906.10(A)(2).

3. The Evidentiary Record Does Not Include Measures That Would Minimize The Facility's Adverse Visual Impacts.

The record does not describe the measures that will be implemented to minimize the Facility's adverse visual impacts as required by OAC 4906-4-08(D)(4)(f). All the Application does is generally list three types of visual mitigation that are theoretically available:

> Situations such as these will be accounted for in the development of a landscape plan for the Project, which will be included as part of the final design. A number of cost-effective options are available to address specific issues in limited circumstances. First, in some cases, full screening with short trees, native hedges or low-growing vegetation outside a portion of the fence may be employed. Second, portions of the perimeter fence can be designed with different materials or colors to enhance its visual appeal. Finally, native pollinator habitat outside a portion of the fence can provide a partial screen that "softens" the visual differences between the Project and the rural character of the area.

Emphasis added. Noticeable absent are any commitments to actually mitigate any adverse visual impacts. Instead, the Application states only that one "may" or "can" implement these measures. Elsewhere, the Application states that it "is considering" pollinator plants and wildflowers and "is considering" the installation of native shrubs and trees in selected sensitive areas. Applic., Exh. I, p. 40. Thus, while the Application contains some vague promises to implement mitigation of some sort, it commits to no concrete details on what that mitigation will be, thus depriving the Concerned Citizens and the public of a meaningful opportunity to influence the choice of mitigation measures. The Application and Amended Stipulation defer any actual commitment to a future time when Applicant submits a post-certificate landscaping plan to the Staff. This lack of specificity violates the mandate in OAC 4906-4-08(D)(4)(f) that the applicant describe the measures that "will be taken" to minimize adverse visual impacts.

The stipulating parties attempted to remedy this shortcoming in the Application by stating in Condition 15 that Alamo shall submit a post-certificate landscape plan that contains "planting of vegetative screening designed by the landscape architect to enhance the view from the residence and be in harmony with the existing vegetation and viewshed in the area."[2] Alamo also introduced a preliminary landscape plan as an exhibit during the supplemental hearing, but the Amended Stipulation does not require Alamo to use this plan to satisfy Condition 15. Moreover, this preliminary plan also is not incorporated into or referenced by the Amended Stipulation, so it is entirely unenforceable as a means to minimize visual impacts. Conway, Tr.

[2] The condition does not give Alamo the option of treating its perimeter fence as visual mitigation near neighbors' homes. The Application provides for a seven-foot chain-link fence without barbed wire, and/or a six-foot chain-link fence with three strands of barbed wire on top. Applic., Exh. I, p. 14. A chain-link fence, with or without barbed wire, is not visual mitigation. The fence itself is an unsightly structure that must be mitigated. And, as noted elsewhere in this brief, those simulations use eight-foot panels to provide the misleading appearance that the 15-foot panels do not loom above the fences.

IV 682:7-12. A post-certificate condition does not cure Alamo's failure to include this plan in the record as required by OAC 4906-4-08(D)(4)(f).

Condition 15 does not provide non-participating neighbors with a voice in determining what visual mitigation will be implemented for their residential properties or surrounding areas. The condition as revised provides that Alamo can vary from the vegetation planting requirements of the condition if "alternative mitigation is agreed upon with the owner of any such adjacent, non-participating parcel containing a residence with a direct line of sight to the fence of the facility," but, remarkably, does not require Alamo to even consult with any such owners to learn about their screening preferences or to accommodate them. Nothing in the Amended Stipulation provides the neighbors with any rights of approval for the visual mitigation near their homes and land, so the neighbors are completely at the mercy of Alamo to design and the Staff to approve the landscaping plan as they wish. These neighbors would have such a voice if Alamo had included a landscape plan in the Application or made it binding under the Amended Stipulation. Condition 15 does not even try to compensate for this failure. Instead, it allows Alamo to design the mitigation however it pleases, whether the victimized landowner likes it or not. A landscaping plan binding on Alamo should have been included in the record as required by OAC 4906-4-08(D)(4)(f) so that the neighbors could adjudicate the details and adequacy of the vegetative designs chosen for their homes and land.

By allowing Alamo to do whatever it wants without the neighbors' consent, Condition 15 fails to accommodate the reasonable expectation of the Concerned Citizens and any other nonparticipating neighbors who may want the solar equipment to be completely screened from their homes by vegetation. Even though Alamo is intruding on the neighbors' presently pleasant views, Alamo does not appear amenable to making such a commitment to salvage whatever can

be salvaged of those views. Mr. Herling testified that Alamo will not commit to completely screening neighbors' homes from the solar equipment at this time. Herling, Tr. I 125:1 to 126:4. He stated: "In some cases, it could be completely screened from view, but it's not a commitment that we're going to be making today." Herling, Tr. I 125:22-24. Alamo's viewshed consultant, Mathew Robinson, testified that his goal is never to install 100 % screening, not even around residential yards. Robinson, Tr. II 377:16 – 379:1. He said that a person "certainly" could see the solar equipment through the hedgerow that he would want to install near neighbors' homes. Robinson, Tr. II 378:1-6. Although a complete screen along all of the roads in the Project Area may look unnatural, a complete screen between solar panels and houses/yards is entirely reasonable and should be installed for affected homeowners who prefer not to see the panels at all from their homes. The Amended Stipulation does not give the neighbors the option to insist on complete screening, or anything else. Condition 15 requires, in vague terms, "planting of vegetative screening designed by the landscape architect to enhance the view from the residence and be in harmony with the existing vegetation and viewshed in the area." But it does provide any detail on how wide the row of vegetation must be or how far apart the plants will be planted. This allows Alamo to leave huge gaps between the plants at the time of planting, or for those gaps to develop later if vegetation dies and is not replaced.

The Application states that evergreen hedges will not be used as screening, based on the unpersuasive argument that evergreens and planted hedges would not be in keeping with the existing rural agricultural character of the Project Area. Applic., Exh. I, p. 41. Instead, Alamo plans to use deciduous vegetation that will leave the solar panels and fences highly visible during much of the year. If affected homeowners prefer an evergreen hedge around their residential

properties, that preference should be accommodated. Condition 15 does not fix that problem, either.

Alamo contends that expanding its mini-setback from yards/land from 10 feet to 25 feet (the length of a typical homeowner's garage) will provide more room for planting screening vegetation. This is hardly reassuring when one realizes that Alamo does not even intend to provide a complete screen, but plans only to use a limited number of plants with gaps between them to "soften" the view of the hideous chain-link/barbed wire fence and, behind it, a seemingly endless sea of industrial solar panels and inverters that can be seen through the fence. While Alamo and Mr. Robinson might argue that some neighbors might prefer a gapped row of vegetation rather than a complete screen, neither of them consulted with the Project's neighbors to find out, and the Amended Stipulation remarkably does not require such consultation even after certification. Moreover, the limited number of shrubs and trees grudgingly promised by Alamo will take many years to grow wide enough to provide even the partial screen envisioned by the developer. And that partial screen will not help with the views from neighbors' elevated viewpoints such as upper floors/stories of homes. Alamo's plan to "soften" the neighbors' views with an incomplete screen is just being cheap, even while Alamo greedily crams as much solar equipment and structures into the fields as it can almost to the fields' edges within a garage's length of the neighbors' land.

Thus, Alamo plans to submit a post-construction landscape plan that leaves gaps between the plants so nearby residents can still see the ugly facility. In the supplemental hearing, Alamo introduced a new concept that makes this problem even worse, by proposing a provision in Condition 15 that requires Alamo to keep only 90% of the plants alive for five years, and then does not specify how much of the screening must stay alive in years six through 40 of the

Facility's life expectancy. So Alamo intends to start out by planting trees and bushes with gaps between them, the gaps will be allowed to multiply in size and number by allowing up to 10% of these plants to die in the first five years, and thereafter there is no standard whatsoever as to how many plants have to survive. This arrangement does not provide for a meaningful vegetative screen between the solar facility and nonparticipants' homes. There is no good reason why Alamo, with its own employees, cannot keep 100% of the screen intact by caring for and, where necessary, replacing the trees and bushes. The ineffective arrangement for vegetative screening is a good example of why a binding landscape plan should have been subjected to public hearing and a complete adjudicatory process to vet and improve the plan.

Mr. Robinson sought to defend his objection to complete screening by arguing that it would look unnatural if some plants died. There are three solutions for this situation: (1) properly care for the plants so they do not die; (2) replace the plants that die; and (3) plant at least two rows of plants so that a dead plant will not open a view to the Facility. Given the visual blight that the Facility will cause, this small extra effort to give neighbors some relief from the views is warranted. Moreover, if the Facility is as profitable as portrayed by the Application, Alamo can afford to plant and maintain enough vegetation to make its screening effective for the life of the facility. Condition 15 does not fix this deficiency. The condition provides only that the "Applicant shall maintain vegetative screening for the life of the facility and the Applicant shall replace any failed plantings so that, after five years, at least 90 percent of the vegetation has survived." This provision leaves hanging some important questions.

First, after five years, how much of the vegetative screening must be maintained for the life of the facility? The condition states that Alamo is required to maintain at least 90% of the vegetation for only five years. If only 50%, or even less, of the screening survives in years six

through 40 of the Facility's life expectancy, is that enough to satisfy the condition's requirement to "maintain vegetative screening for the life of the facility"? If Alamo builds the Facility, it very well might argue that this condition does not specify how much vegetation must survive during years six through 40. Even during the first five years, must Alamo maintain 90% of the screening in front of every nonparticipating neighbor's homestead, or is Alamo allowed to let all vegetation in front of a neighbor's home die as long as 90% of the screening still survives in the facility overall? Mr. Robinson testified that he thought 90% of the screening on each nonparticipants' yard would be maintained, but he confessed that he could not tell if Condition 15's language matched that understanding. Robinson, Tr. IV 658:20 - 660:6. With regard to the 90% requirement, Staff member Andrew Conway confessed: "I don't know how it would be implemented." Conway, Tr. IV 684:7. These questions could have been answered by including a vegetation maintenance plan in the record, but none was provided. These loopholes in the condition could eviscerate the screenings' effectiveness.

Second, the Application and Amended Stipulation say nothing about how tall the vegetation will be or about whether the plants must be as high as the solar panel or fences. As currently worded, Alamo might later contend that the Application and Amended Stipulation require planting of no more than "pollinator" plants. Pollinator plants do nothing to block the view of solar equipment, since they are short plants that do not hide the 15-foot tall solar panels or seven-foot fences. Figure 13, Simulation 2, Sheet 4 of 6 in Application Exhibit I depicts what pollinator habitat looks like. Robinson, Tr. II 374:25 to 375:8. At most, pollinator plants grow to average heights of four to six feet in the summer (Applic., Exh. I, p. 40), so these plants will not conceal or disguise the solar panels even at maximum height and they will be even shorter at other seasons. Even if Alamo plants trees and bushes in front of neighbors' homes

notwithstanding the Amended Stipulation's failure to specify them, the views of the solar panels from other public vantage points still will be screened only by short pollinator plants.

Third, the Application and Amended Stipulation do not identify effective, professional practices in designing and maintaining visual mitigation. Herling's initial written direct testimony represents that Alamo will use "best practices for visual mitigation developed in solar markets across the U.S." Co. Exh. 7, p. 13, lines 1-2. However, there are no standards for these practices. Herling, Tr. I 126:22-24. He was just referring to "what's generally known in the industry." Herling, Tr. I 126:25 to 127:5. These practices are not described in the Application or the Amended Stipulation. Herling, Tr. I 127:13-15. The Application and Amended Stipulation punt the selection of these practices to the post-certificate landscaping plan, with Condition 15 stating only that a licensed landscape architect will be consulted.

Alamo seeks to defuse its lack of commitment by stating it will consult with the neighbors to find out whether they want vegetative screening and to present different options. Herling, Tr. I 104:17-22. But neither the Application nor the Amended Stipulation require Alamo to actually consult with the neighbors. And even if Alamo engages its neighbors in these discussions, this is no substitute for properly and lawfully including the mitigation measures in the record and adjudicating them at the hearing. Nothing in the Amended Stipulation provides the neighbors with any rights of approval for the visual mitigation near their homes and land, so the neighbors are completely at the mercy of Alamo to design and the Staff to approve the landscaping as they wish. A binding landscaping plan should have been included in the record as required by OAC 4906-4-08(D)(4)(f) so that the neighbors could adjudicate the details and adequacy of the vegetative designs chosen for their homes and land.

The preliminary landscape plan submitted by Alamo at the supplemental hearing shows that it was feasible for Alamo to include and obtain approval for a binding landscape plan on the record. The preliminary landscape plan contains maps and plant lists showing where the screening plants could be located along the borders of three nonparticipants' properties. Co. Exh. 16, Attachment 1, pp. 15-17. The detail on these pages is sufficient for nonparticipating neighboring landowners to tell whether the proposed screening is adequate. Had Alamo included a final, binding plan in the record for every affected nonparticipating neighbor, those neighbors could have consented to or contested the sufficiency of the vegetative screens during the public comment session of the hearing and the adjudicatory session of the hearing. Instead, the plan is still subject to post-certificate revisions at the whims of Alamo and the Staff and, in fact, could be changed in its entirety since neither the Application nor the Amended Stipulation require any degree of adherence to the draft attached to Mr. Robinson's testimony.

Requiring a post-certificate landscaping plan through a certificate condition, as provided by Condition 15, is not a lawful substitute for adjudicating the details of the plan on the record. The Amended Stipulation does not correct this violation of law, or any of the other issues discussed above. The Board should not issue a certificate unless and until the deficiencies described above are addressed on the record.

While the Application states that Alamo will "work closely with nearby residents and local officials to identify those locations that may be best suited for landscaping treatments," the Application does not commit Alamo to accepting <u>any</u> landscaping requests from them or even asking them about their preferences. The Amended Stipulation does not correct this unfriendly, arrogant approach. Nor does the employment of a licensed landscape architect to design the vegetation plan provide any assurance, since the landscaper will be beholden to its customer,

Alamo. Allowing Alamo and the Staff to collaborate on a landscape plan in secret after certification may give Alamo considerable flexibility to design the landscaping as it pleases, but that just gives Alamo the opportunity to skimp on the landscaping just as it has skimped on the Application's contents. A binding landscaping plan should have been included in the Application or the record as required by OAC 4906-4-08(D)(4)(f) to provide the neighbors with a meaningful voice in addressing the Facility's visual impacts.

Submitting a post-certificate landscaping plan pursuant to a certificate condition is not a lawful substitute for adjudicating a plan that would give affected neighbors a fair opportunity to adjudicate the adequacy of the Applicant's screening plans. The Board's decision allows Alamo to bypass this process and leaves this important work to the unfettered post-certificate collaboration of Alamo and the Staff. Instead of providing an enforceable goal, such as complete screening for neighboring residences, Condition 15 does little more than state that Alamo and the Staff will later determine in secret what screening will be required. The Board should not issue the certificate unless and until the deficiencies described above are addressed.

Most importantly, the Application and Amended Stipulation fail to provide for the only mitigation measure that would make the Project represent the minimum adverse visual environmental impact: place the Project's fences and equipment far enough away from people's residences and public roads so that they blend into the background. These setbacks would make the Project actually comport with the Project's appearance described in the Application's simulations. Simulation 5 in the visual resource assessment is a good example of how the Project should appear to the community. Applic. Exh. I, p. 33 & Fig. 11, Sheet 10 of 10, pdf. p. 70.

Alamo's Project does not satisfy R.C. 4906.10(A)(3), because Alamo has not provided a facility design that represents the minimum adverse environmental impact with regards to visual impairment considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations. As explained above, "minimum" means the least possible, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations. It is not enough for the facility design or the stipulated conditions to just somewhat reduce the visual impacts as Alamo and the Staff proposed to do. Cheap, half-hearted measures to "soften" the visual impairment by spacing trees and bushes with gaps between them in narrow setbacks and then not even requiring the company to keep all of that vegetation alive over the facility's lifetime does not attain a "minimum" impact. Nor is this standard achieved by siting ugly fences and solar panels so close to neighboring yards, land, and residences.

The position of Alamo and the Staff that the visual mitigation need not be acceptable to the people being victimized by the Project is especially disturbing. The Staff and Alamo have done everything they can to prevent the impacted population from having a meaningful voice in influencing the design of the mitigation they will be forced to look at for the next 40 years. In that regard, Alamo with the Staff's blessing makes only vague promises to plant vegetation rather than including a binding landscape plan for citizen input during the adjudicatory process. The preliminary landscape plan submitted during the supplemental hearing contains a suitable amount of detail on vegetation, but since it is not enforceable in the Amended Stipulation, Alamo could just ignore it after receiving a certificate. Nothing in the Amended Stipulation requires Alamo to solicit the views of the impacted neighbors about the mitigation to be installed. The adjudicatory and public hearing process set up by R.C. Chapter 4906 was designed to provide the

public with this input, and Alamo and the Staff are attempting to circumvent that process by formulating the landscape plan after certification instead of including it in the record. This scheme leaves only Alamo and the Staff with a voice in these decisions, and they want to make those decisions without public influence.

Condition 15 offers only ambiguous, poorly worded parameters for mitigation, while the preliminary landscape plan is not part of the Application or enforceable under the Amended Stipulation. Without locking in more details for mitigation, the Board has no way of knowing what the visual impacts will be once the unfinished, promised landscaping plan is prepared and implemented. The Board cannot make a determination of minimum adverse impact based on a vague promise that Alamo and the Staff will address these visual impacts.

B. With Respect To Visual Impacts From Lighting, (1) The Evidentiary Record Does Not Contain The Information About The Visual Impacts Of Project Lighting And Mitigation Measures Required By OAC 4906-4-08(D)(4), (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to the adverse impacts of the Project's lights, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

OAC 4906-4-08(D)(4) provides:

> (4) Visual impact of facility. The applicant shall evaluate the visual impact of the proposed facility within at least a ten-mile radius from the project area. ...The applicant shall:
>
> ****
>
> (f) Describe measures that will be taken to minimize any adverse visual impacts created by the facility, including, but not limited to, project area location,

> lighting, turbine layout, visual screening, and facility coloration. In no event shall these measures conflict with relevant safety requirements.

Emphasis added. The record does not include this information about lighting.

The Application states that lights will exist at gates. Applic., p. 89. However, it provides no details about the actual locations of these lights, because Alamo has not decided where to build the gates. The visual impact assessment of Alamo's consultant in Application Exhibit I does not fill this information gap, but simply notes that, other than at the substation, lights will located at "a few other select locations." Applic., Exh. I, p. 39. This has left the Concerned Citizens unable to determine whether their individual homes will be subjected to these lights. This lack of information violates the requirement in OAC 4906-4-08(D)(4) to "evaluate the visual impact of the proposed facility."

The Application makes no commitments for mitigation measures that will be taken to minimize adverse visual impacts of lighting, even though the rule requires that the applicant must describe the "measures that will be taken." Instead, it generally describes the types of mitigation that "may be incorporated into the design" such as downward facing lights, side shields, and motion sensors. Applic., p. 90. This lack of commitment does not satisfy the requirement in OAC 4906-4-08(D)(4) to "[d]escribe measures that will be taken to minimize any adverse visual impacts created by the facility, including … lighting."

Alamo could have provided maps in the Application that identify the locations for its lights. In fact, the preliminary site plan attached to Doug Herling's second supplemental site plan does that. Co. Exh. 14, Attachment DH2, pdf pp. 51-70 (see the symbol for lighting in the legend on each map). If Alamo had included this information in the Application or if the Amended Stipulation had made the preliminary site plan binding on Alamo upon issuance of a certificate, then the Concerned Citizens and other affected members of the public could have

figured out whether the lighting in the plan would annoy them in their homes. However, the preliminary site plan is not in the Application, nor does the Amended Stipulation make it binding on Alamo. The preliminary site plan is subject to revision at Alamo's whim.

Condition 15 does not correct this deficiency in the Application. The condition provides that "[l]ights 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." However, while this language belatedly makes it mandatory for the lights to be focused towards the Facility and motion-activated, these requirements fall short of the detail necessary for nonparticipating neighbors to know whether the lights will bother them. For example, if the lights are bright and close to a neighbor's house, additional mitigation such as complete vegetative screening (not Mr. Robinson's gapped plantings) may be necessary to prevent the lights from illuminating the neighbor's house. The condition does not fill in the information missing from the Application to "describe measures that will be taken to minimize any adverse visual impacts " from lighting as required by OAC 4906-4-08(D)(4)(f). Nor does the condition provide an enforceable goal or standard to achieve. This reality is betrayed by the fact that Condition 15 still requires the lighting details to be fleshed out in a later plan. Moreover, while planting screening vegetation between the lights and neighbors' homes could prevent light pollution in their yards and houses, a meaningful, binding vegetation plan was not included in the record either. In essence, the lighting condition merely provides that Alamo and the Staff will work out the mitigation measures in a future secret deal. The Certificate cannot be issued without first including this plan in the record and testing the plan during the adjudicatory process.

C. With Respect To Operational Noise, The Evidentiary Record Lacks The Decibel Data And Mitigation Measures For Operational Noise From The Inverters Required By OAC 4906-4-08(A)(3), (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental

Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to noise during Project operation, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

1. Alamo Wants To Install Its Solar Project In An Extremely Quiet Community In Which New Noises Will Be Easily Heard.

Alamo wants to construct its solar project in a quiet rural community, as it discovered when its acoustics consultant, Hessler Associates, Inc., measured the background sound level in the Project Area. The background sound level "can provide some masking where it covers up the sound from some plant or source if it's high enough." Testimony of David Hessler, Transcript ("Hessler, Tr.") II 251:21 to 252:2. In the Project Area, the average L90 background sound level in daytime is "very low" at "only 34 dBA," which "means the background level is insignificant; there's no ability for it to cover anything up." Hessler, Tr. II 252:3-7. *Also see* Hessler, Tr. II 242:9-12; Co. Exh. 2, Suppl. Applic. ("Hessler's Report"), p. 2; Co. Exh. 10, Hessler Testimony, p. 3, Answer 7. The acronym "dBA" as used in this measurement stands for A-weighted decibels. Hessler, Tr. II 242:3-8.

Hessler's Report on the project's anticipated noise impacts measures the ambient sound using the L90 metric, which the report characterizes as the "parameter of primary relevance and importance to this kind of survey." Co. Exh. 2, p. 4. This metric identifies the sound level exceeded during 90% of time. *Id.*

During the supplemental hearing, Alamo introduced a different sound metric into the discussion, the Leq, through Mr. Hessler's testimony. Tr. IV 638:22 – 639:21. Mr. Hessler did

not define the Leq, or explain why its consideration has any relevance given the use by Hessler's Report of the L90 to measure ambient sound. Hessler's Report provided a figure depicting both the L90 and Leq readings for the Project Area, but did not identify the average Leq for the Project Area and did not use the Leq readings for any purpose. Co. Exh. 2, p. 5. Hessler's Report does refer to the Leq as a metric that measures "average" sound levels (*id*.), and that nomenclature explains why the Leq should not be used to judge a project's noise impact. A simple mathematical exercise illustrates the reason why an average provides skewed results. For illustration, assume that we have 8 sound measurements of 30 dBA and two measurements of 50 dBA. An average would be 34 dBA, which exceeds the normal ambient sound of 30 dBA by four dBA for 80% of the time. If a new noise source received a noise limit based on the average of 34 dBA, this would result in uncomfortable levels of annoying noise off-site. For that reason, Hessler's Report uses the L90 metric, not the Leq metric, to judge the acceptability of the project's anticipated noise.

2. OAC 4906-4-08(A)(3) Requires The Evidentiary Record To Describe The Operational Noise Levels Expected At The Nearest Property Boundary And At Each Habitable Residence.

OAC 4906-4-08(A)(3) describes the information that the applicant must provide about the anticipated noise impacts from the Facility:

> (3) Noise. The applicant shall provide information on noise from the construction and operation of the facility.
>
> ****
>
> (b) Describe the operational noise levels expected at the nearest property boundary. The description shall address:
>
> (i) Operational noise from generation equipment.…
>
> (ii) Processing equipment.
>
> (iii) Associated road traffic

(c) Indicate the location of any noise-sensitive areas within one mile of the facility, and the operational noise level at each habitable residence, school, church, and other noise-sensitive receptors, under both day and nighttime operations. Sensitive receptor, for the purposes of this rule, refers to any occupied building.

(d) Describe equipment and procedures to mitigate the effects of noise emissions from the proposed facility during construction and operation, including limits on the time of day at which construction activities may occur.

Emphasis added.

3. The Application Represents That The Sound From The Project's Inverters Is Almost Inaudible.

Alamo's Application is missing important noise information required by this rule for the inverters that Alamo plans to install in the solar fields. Inexplicably, the Application contains no modeling for the noise from inverters to determine how much noise would travel from them to neighboring land and houses.

Inverters convert the energy from solar panels from direct current to alternating current and step up the voltage so it can be transmitted in a larger collection line. Herling, Tr. I 99:8-18. During that process, the inverters generate a humming noise and sometimes a high frequency ringing noise. Co. Exh. 2, Hessler Report, p. 12.

Alamo tried to excuse its lack of acoustics data for the inverters by representing in the Application that a solar facility "comes close to operating silently." Applic., p. 57. It further states that "the noise that inverters and their associated step-up transformers generate is inaudible at a distance of 50 to 150 feet from the source." Applic., p. 58. Alamo stated that this position is based on the report from Hessler Associates in Exhibit E of the Application. Applic., p. 58; Herling, Tr. I 101:8-17. Exhibit E subsequently was replaced by Hessler Associates' revised report in Company Exhibit 2 ("Hessler's Report").

Hessler's Report actually states that "field measurements indicate that inverter sound fades to insignificance relative to normal background levels at a distance of 150 ft.," not 50 to 150 feet as stated in the Application's narrative. Co. Exh. 2, Hessler Report, pp. 2, 15. Hessler's Report also contends that inverter sound "is rarely audible at the perimeter fence of typical solar fields." *Id*.

The Application estimates that there will be a distance of 50 feet between the solar equipment and the project's "site property boundary," as "conservatively interpreted." Applic., p. 57. The Application's false representation that Hessler's Report finds the inverter noise to be inaudible at 50 feet away is obviously intended to demonstrate that inverter noise will not reach nonparticipating neighbors' land and homes, since the Application's setbacks from the solar equipment to nonparticipants' property lines and homes are merely 25 feet and 100 feet, respectively.[3] Applic., p. 55.[4] However, the Application, including Hessler's Report, contains no noise data showing the amount of inverter noise that will travel 50 feet.

Actually, neither the Application's narrative nor Hessler's Report contain any noise data to show the amount of inverter noise that will travel 150 feet, either. The statement in Hessler's Report, representing that "field measurements indicate that inverter sound fades to insignificance relative to normal background levels at a distance of 150 ft.," is based on a report for the Massachusetts Clean Energy Center (hereinafter referred to as the "Massachusetts Report"). Co. Exh. 2, Hessler's Report, p. 13; Hessler, Tr. II 251:3-10. In fact, this statement is based solely on the Massachusetts Report, since this was Mr. Hessler's only information on inverter volume at the time he did his report. Hessler, Tr. II 259:9-14.

[3] The Amended Stipulation now calls for a 150-foot setback instead of the 100-foot setback.
[4] The setbacks are slightly larger where solar fields and nonparticipants' properties are separated by public roads, but much of the solar fields abuts nonparticipants' yards and land.

When called upon to find information in the Massachusetts Report revealing the volume of inverter noise at a distance of 150 feet away, Mr. Hessler confessed that the Massachusetts Report contained no such data. Hessler, Tr. II 259:15 to 263:3. He admitted that the report "tells you nothing about inverter noise really." Hessler, Tr. II 261:9-13. Even after taking a 20-minute intermission in the hearing to discuss the report with Alamo's counsel, Mr. Hessler was unable to identify any such data in the report as revealed by the lack of redirect examination on the issue. Tr. 263:11-18, 264:4 to 267:17.

The Massachusetts Report did not identify the inverters' sound volumes at 150 feet away. Instead, it only found that the inverter sound at three study sites did not exceed the background sound levels at that distance. Hessler, Tr. II 259:15 to 263:3. However, "the normal background level varies from site-to-site." Hessler, Tr. II 251:11-13. And at the sites studied in the Massachusetts Report, the background sound levels were considerably higher than the 34 dBA average L90 background sound level in Alamo's Project Area. In contrast, the background sound levels in the Massachusetts Report ranged from 41.6 dBA to 50 dBA at a distance of 150 feet from the inverters. Hessler, Tr. II 256:16 to 257:17.

Mr. Hessler attempted to rescue his opinion by testifying that, after the Application was filed, he had measured sound from a solar inverter in New York State and found it equaled background at 100 feet away. Hessler, Tr. II 249:21 to 250:17. However, he did not say how high the background sound level was. Hessler, Tr. II 150:16-17. Nor did he produce any data or other written documentation for his measurements. This statement by Mr. Hessler does no more to identify the inverters' noise level at 150 feet, or at any other distance, than the Massachusetts Report.

Thus, the Application assures the public that the Project's inverters will be almost silent, which was based solely on Mr. Hessler's characterization of data in the Massachusetts Report. At the original hearing, Mr. Hessler was forced to admit that the Massachusetts Report contained no such data. Thus, Mr. Hessler had no relevant decibel data for inverters from either modeling or field measurements in the Application or in the original hearing. Mr. Hessler could have obtained this data for the Application by measuring the sounds from inverters in operational solar projects. In lieu of this data, the Application and Mr. Hessler defaulted to making general statements about how quiet inverters are, representing that his measurement of sound from a single solar inverter in New York State supported the Application's statement that the sounds from inverters are barely audible. Mr. Hessler's subsequent modeling, presented in the supplemental hearing, showed that his general representations were very wrong.

4. <u>Alamo Now Admits That Inverters Emit Noise At A Level of 38 dBA At A Distance Of 500 Feet</u>.

As described above, the Application represents that a solar facility "comes close to operating silently" and that inverter sound "is inaudible at a distance of 50 to 150 feet from the source." Applic., pp. 57-58. Mr. Hessler insisted that these representations were accurate during the original hearing.

Mr. Hessler took a very different position at the supplemental hearing. By that time, he had obtained a manufacturer's sound test report for a commonly used inverter. Co. Exh. 15, Hessler Suppl. Testimony, p. 2, lines 11-20. He then used the manufacturer's data to model the noise from the central inverters for the Project. *Id*., lines 8-23. He discovered that central inverter noise is 38 dBA at a distance of 500 feet. *Id*., p. 4, lines 3-4. The contour map of noise levels in Mr. Hessler's supplemental testimony shows that noise from the central inverters will be as high as 40 dBA at the property lines of nonparticipating neighbors. Hessler, Tr. IV 636:17-

22; Co. Exh. 15, Exh. DMH-S1 (with blue lines showing that 40 dBA from four inverters intersect or cross the project area's boundaries).

Mr. Hessler did not calculate the inverter noise level at a distance of 50 feet, which is the setback that he and the Application assured the Board would be adequate to avoid adverse noise impacts in the original hearing. Needless to say, the inverter noise level at 50 feet is higher than at 500 feet. The information introduced in the supplemental hearing on the actual 38 dBA noise level for inverters has destroyed any credibility for representations made by Alamo or Mr. Hessler.

With an average L90 ambient sound level of 34 dBA, the central inverters will increase the community's average L90 noise level by four dBA to 38 dBA at 500 feet. Although Alamo contends that the noise at neighboring nonparticipants' homes will not exceed 35 dBA, it will still raise the sound level to 40 dBA on neighboring land. This noise level is reached at boundary lines at four locations. Co. Exh. 15, Hessler Suppl. Testimony, Attachment DMH-S1. While the Board's Opinion at Page 86 inaccurately states that CCPC appears to be concerned only about inverter noise at a distance of 100 feet, the central inverter noise of 40 dBA at 500 feet will be a bothersome six dBA above the average L90 background noise level of 34 dBA. Alamo attempted to disguise the harmful impact of this noise increase during the supplemental hearing by having Mr. Hessler testify that the 38 dBA at 500 feet is less than the Leq level of 39 dBA. Hessler, Tr. IV 638:22 – 639:21. There are two problems with this contention. First, nothing in Hessler's Report documents 39 dBA as an accurate Leq for the Project Area. Second, even if the Leq is 39 dBA, allowing the inverters' noise to come close to that level off-site at 500 feet would expose neighbors to unacceptable noise increases for much of the time, especially during the many times in which the average background sound is below its average. At 50 or

150 feet away, the average noise increase likely is more than five dBA above background. This means that the representations in the Application and by Mr. Hessler during the original hearing that inverter sounds would fade to the 34 dBA ambient level within 50 feet, or even 150 feet, were demonstrably false. The inverters' noise does not fade to the 34 dBA ambient level even at a distance of 500 feet, and that is problematic.

The map of central inverter noise levels in the map attached to Mr. Hessler's supplemental testimony represents that the noise from the central inverters will be up to 35 dBA at some nonparticipants' homes. *Id.*; Co. Exh. 15, p. 2, line 20 – p. 3, line2. However, these are the projected noise levels if the central inverters are sited at the locations shown in Exhibit DMH-S1 of Company Exhibit 15. Alamo is not required by the Application or the Amended Stipulation to place its central inverters at those locations. Alamo could move them closer to the Facility boundary, as long as they were at least 500 feet from neighboring non-participants' houses. Mr. Hessler represented that his model showed that the noise from central inverters will be 38 dBA at a distance of 500 feet. Co. Exh. 15, p. 4, lines 1-4. At 500 feet from neighboring houses, the central inverters would expose non-participants' to up to 38 dBA of noise at their houses, which is four dBA above the 34 dBA daytime background sound level and 12 dBA above 28 dBA at the low end of the normal range of L90 background sounds. Co. Exh.2, Suppl. Applic., Hessler's Report, pp. 5-6.

While the Amended Stipulation attempts to compensate for the Application's failure to identify the noise levels for central inverters, neither the Application nor the Amended Stipulation identify the noise levels for string inverters. String inverters convert the electricity on a single string (row) of solar panels. Herling, Tr. IV 592:14 – 593:2. The project may use string inverters. Herling, Tr. IV 592:5-8.

OAC 4906-4-08(A)(3) requires the applicant to identify "the operational noise levels" at the nearest property boundary and nonparticipants' residences for all project noise sources, and string inverters emit noise. Since string inverters can be sited "pretty much anywhere along a string of panels" (Herling, Tr. IV 607:9-13), string inverters can be located close to the project border. Although the Amended Stipulation proposes a setback of 500 feet for central inverters, it has no setback for string inverters other than the insignificant setback of 25 feet between solar facility fences and neighboring land/yards and the insubstantial setback of 150 feet between solar equipment (including string inverters) and neighboring homes. In light of these small setbacks, the accurate quantification of string inverter noise from Alamo's string inverters is all the more important. Knowing the string inverters' decibel levels is critical, since these string inverters will be operating in a "very quiet" rural area in which the existing average daytime L90 noise level is only 34 dBA. Co. Exh.2, Suppl. Applic., Hessler's Report, p. 2. Nevertheless, the record contains no noise measurements or modeling for string inverters. At locations at which the noise from string inverters will be combined with noise from central inverters, the combined noise levels should have been modeled. Alamo could have provided this modeling, because David Herling had sound test information that he could have used for that purpose. Hessler, Tr. IV 619:11-16, 624:7-18. Alamo has no good excuse for not modeling the string inverters' noise. Alamo simply neglected to tell Mr. Hessler that string inverters might be used. Hessler, Tr. IV 624:20-24.

Mr. Herling represented that he has seen some string inverters, and their noise was not noticeable to him above the ambient noise levels. Herling, Tr. IV 608:10 – 609:3. But he did not measure the noise outputs from any of those string inverters, nor has he or anyone else at Alamo measured the sound from any string inverters. Herling, Tr. IV 611:23 – 612:11. Alamo

did not even bother to request sound test reports for string inverters from the manufacturers. Herling, Tr. IV 612:12-14. Like Mr. Herling, Mr. Hessler said that string inverters are quiet. Hessler, Tr. IV 624:24 – 625:8. However, we have heard this tune before, in the original hearing, in which Mr. Herling reassured everyone that the solar arrays are "near-silent" and Mr. Hessler testified that inverter sound is "barely audible." Co. Exh. 7, Herling Testimony, p. 8, lines 21-23; Hessler, Tr. II 249:21-25. And those assertions now have been proven false by Mr. Hessler's modeling of 38 dBA at a distance of 500 feet. So there is no reason to believe the same type of testimony for string inverters, unless their noise has been modeled. String inverters do produce noise, as shown by Mr. Hessler's acknowledgement that their humming can be heard at about 65 dBA at a distance of one meter. Hessler, Tr. IV 625:2-4. This level is comparable to the sound from a central inverter, which emits 60 to 70 dBA at 10 feet. Co. Exh. 2, Suppl. Applic., p. 12. Sound modeling should have been included in the record for string inverters, as well as central inverters. And it is Alamo's duty to provide this data, not the Concerned Citizens. No certificate should be issued as long as the record lacks noise modeling data for the string inverters.

Thus, the record does not "[d]escribe the operational noise levels expected at the nearest property boundary," as required by OAC 4906-4-08(A)(3)(b). Nor does the record comply with OAC 4906-4-08(A)(3)(c), which requires the applicant to "[i]ndicate the location of any noise-sensitive areas within one mile of the facility, and the operational noise level at each habitable residence, school, church, and other noise-sensitive receptors, under both day and nighttime operations." Emphasis added. Without this information, OPSB has no evidence that the project represents the minimum adverse environmental impact.

5. Revising The Setback Between Solar Equipment And Nonparticipants' Homes By Stipulation Does Not Satisfy The

Requirements In OPSB's Rules That The Evidentiary Record Provide The Setbacks And Noise Estimates At Project Boundary Lines And Nearby Homes.

The Application states that "[t]he Project will be designed to site the inverters within the solar fields to ensure they do not cause material, adverse impacts to any sensitive, off-site receptors." Applic., p. 58 (emphasis added). Given the Application's 25-foot setback from nonparticipants' property lines, the inverters could be a mere 25 feet from the boundary and still comply with the Application's statement that they will be located "within the solar fields."

In the original hearing, Mr. Herling testified that inverters should be located "in the center of the Project" "in the center of an array," to efficiently gather the energy from the panels. Herling, Tr. I 101:18-25. He said that no inverter will be located within 150 feet of a residence. Herling, Tr. I 103:5-6. But he admitted that the Application does not identify the locations for the inverters. Herling, Tr. I 102:5-8, 109:10-12. At the original hearing and in its two subsequent post-hearing briefs, Alamo refused to agree to a condition in the Stipulation requiring the company to site the inverters even 150 feet from the property line. Herling, Tr. I 110:3 to 111:12.

Thus, the record does not "[d]escribe the operational noise levels expected at the nearest property boundary," as required by OAC 4906-4-08(A)(3)(b). Nor does the record comply with OAC 4906-4-08(A)(3)(c), which requires the applicant to "[i]ndicate the location of any noise-sensitive areas within one mile of the facility, and the operational noise level at each habitable residence, school, church, and other noise-sensitive receptors, under both day and nighttime operations." Emphasis added. The record fails to identify the inverter noise levels at the nonparticipants' residences within a mile of the Facility.

Realizing the indefensibility of its position, Alamo has now entered into an Amended Stipulation with its allies that would institute a 500-foot setback between central inverters and the homes of nonparticipating neighbors. However, neither the Application nor any witness testimony reveals the sound level at boundary lines and sensitive receptors from string inverters. Without including this information in the record as required by rule, OPSB cannot issue a certificate for the Alamo project.

6. The Evidentiary Record Fails To Describe The Mitigation Equipment And Procedures For Mitigating Noise Problems From Operating The Inverters As Required By OAC 4906-4-08(A)(3).

OAC 4906-4-08(A)(3) describes the information that the applicant must provide about the anticipated noise impacts from the Facility:

> (3) Noise. The applicant shall provide information on noise from the construction and operation of the facility.
>
> ****
>
> (d) Describe equipment and procedures to mitigate the effects of noise emissions from the proposed facility during construction and operation, including limits on the time of day at which construction activities may occur.

Emphasis added.

Hessler's Report states that options exist for mitigation of inverter noise "should any problems arise" during operation. Co. Exh. 2, Hessler Report, p. 2. These mitigation measures include cabinet damping and ventilation silencers. *Id*. at 13. However, except for including silencers, this statement conflicts with the mitigation measures identified in Mr. Hessler's supplemental testimony: acoustical hoods, louvers, and silencers. Co. Exh. 15, p. 4, lines 13-15. Consequently, the record fails to identify the mitigation measures that will be used to address noise problems from the inverters, not to mention that mitigation is a poor substitute for the Alamo's failure to employ proper siting to prevent the problem altogether.

The Board's Opinion points out (at Page 86) that the Amended Stipulation requires mitigation for noise problems. However, the Amended Stipulation fails to identify the noise level at which mitigation will be employed. Although the Amended Stipulation provides for a complaint procedure, this begs the question about the sound level necessary for such a complaint to be considered successful in obtaining mitigation. The failure to determine when mitigation will be required does not satisfy OAC 4-08(A)(3)(d), which requires the record to proactively describe the "procedures to mitigate the effects of noise emissions from the proposed facility during construction and operation."

D. With Respect To Construction Noise, (1) The Evidentiary Record Lacks Effective Measures To Minimize Disagreeable Noise From Construction Required by OAC 4906-4-08(3)(d) , (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to noise from Project construction, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

OAC 4906-4-08(A)(3) requires the applicant to provide the following information about noise levels expected to occur during construction of the Facility:

> (3) Noise. The applicant shall provide information on noise from the construction and operation of the facility.
>
> (a) Describe the construction noise levels expected at the nearest property boundary. The description shall address:
>
> (i) Blasting activities.
>
> (ii) Operation of earth moving equipment.
>
> (iii) Driving of piles, rock breaking or hammering, and horizontal directional drilling.

(iv) Erection of structures.

(v) Truck traffic.

(vi) Installation of equipment.

****

(d) Describe equipment and procedures to mitigate the effects of noise emissions from the proposed facility during construction and operation, including limits on the time of day at which construction activities may occur.

Emphasis added.

The Application predicts that "numerous piles" will be driven into the ground to serve as posts for the solar panels. Applic., p. 57. The Facility will hold between 186,400 and 279,600 solar panels. Applic., p. 8. The posts for the solar panels will be pounded or screwed into the ground. Herling, Tr. I 44:10-20. They are screwed into the ground if bedrock is encountered. Herling, Tr. I 44:1-19.

The Application admits that the pile driver and/or drill rig truck used to drive the posts into the ground will produce a noise that is 84 dBA at a distance of 50 feet, which the Application represents to be "conservatively interpreted" as the distance to the project's boundary. Applic., p. 57; Hessler, Tr. II 253:6-18. This is equivalent to the noise from a bulldozer. Co. Exh. 2, Hessler's Report, p. 14, Table 6.0.1; Hessler, Tr. II 254:6-8. Even Mr. Hessler admitted that using a pile driver to pound solar panel posts into the ground "does make a disagreeable noise." Hessler, Tr. II 255:9-16.

The Application states that the pile driving noise will be "temporarily produced." Applic., p. 57. Hessler's Report asserts that this activity will be "fairly short-lived in any particular location." Co. Exh. 2, Hessler Report, p. 2. Mr. Hessler speculated that posts are typically installed in a particular area within "I would speculate, a week or two." Hessler, Tr. II 243:15-24.

However, no information in the record supports this optimistic prediction. To the contrary, the construction of a solar project typically takes nine to 12 months. Herling, Tr. I 95:11-13. While installing posts may not take that entire time period, Alamo has provided no information to identify how long this task will take. For example, Mr. Herling could not say how long it will take to install the solar panel posts in a 300-acre solar field in the Facility that adjoins properties owned by at least six non-participating families. Herling, Tr. I 96:3-25. Although Mr. Herling guessed that driving one post into the ground takes "minutes," the Project requires more than one post. The Application states that 40,731 posts will be installed. Applic., Exh. G, p. 7-4. Even at that number and even in the unlikely event that each post could be driven in two minutes, the neighbors will have to endure this obnoxious activity for 1,358 hours, which at 10 hours per day would amount to 135 days of mind-numbing metal pounding. Given these statistics, it is no wonder that Mr. Herling was reluctant to estimate how long the six families living adjacent to the 300-acre solar field will suffer from that noise. Herling, Tr. I 95:24 to 97:20.

Thus, the neighbors could be subjected to these loud, "disagreeable" noises over a considerable period of time. Certainly, nothing in the Application or hearing testimony indicates otherwise. Moreover, Alamo's own acoustics expert found that the average existing sound level in the Project Area during the daytime is "very low" at "only 34 dBA," which "means the background level is insignificant; there's no ability for it to cover anything up." Hessler, Tr. II 252:3-7. *Also see* Hessler, Tr. II 242:9-12; Co. Exh. 2, Supplemental Application, Hessler Report, p. 6.

The objective facts in the record demonstrate that Alamo's construction noise will be minimal in neither volume nor duration. Simply requiring Alamo to stop pounding the metal

posts at dusk, as suggested by Condition 13 of the Stipulation, will not provide the Facility's neighbors with adequate relief from this noise. Warning the neighbors in advance that the loud noises are about to start, as required by the same condition, also does nothing to relieve the neighbors of the sound. The Board cannot find that the Project represents the minimum adverse environmental impact with regard to construction noise. Pursuant to OAC 4906-4-08(A)(3)(d), OPSB should not issue a certificate without first instructing Alamo to devise more effective mitigation measures to address this noise.

E. With Respect To Damage To Field Drainage Tiles, (1) The Evidentiary Record Lacks The Procedures Necessary To Comply With The Requirements In OAC 4906-4-08(E)(2) For Avoiding And Repairing Damage To Field Drainage Tiles, (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, (3) The Board Lacks The Information Necessary To Determine Whether The Project Represents The Minimum Adverse Environmental Impact, And (4) The Board Erred In Finding That The Project Serves The Public Interest, Convenience, And Necessity.

With respect to the Project's impacts on drainage tiles, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), by failing to require the production of evidence that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3), and by finding that the Project serves the public interest, convenience, and necessity under R.C. 4906.10(A)(6).

OAC 4906-4-08(E)(2) provides:

> (2) Agricultural information. The applicant shall provide, for all agricultural land, and separately for agricultural uses and agricultural districts identified under paragraph (E)(1) of this rule, the following:
>
> ****
>
> (b) An evaluation of the impact of the construction, operation, and maintenance of the proposed facility on the land and the following agricultural facilities and practices within the project area:
>
> ****

(iii) Field drainage systems.

****

(c) A description of mitigation procedures to be utilized by the applicant during construction, operation, and maintenance to reduce impacts to agricultural land, structures, and practices. The description shall illustrate how avoidance and mitigation procedures will achieve the following:

(i) Avoidance or minimization to the maximum extent practicable of any damage to field tile drainage systems and soils in agricultural areas.

(ii) Timely repair of damaged field tile systems to at least original conditions, at the applicant's expense.

Emphasis added.

The vigilant monitoring, maintenance, and repairs of field drainage tiles are of utmost importance to a crop farmer. Wet fields cannot be planted or harvested. Flooded fields kill crops. For example, planted corn seeds or small corn plants will die if they are flooded for 24 to 48 hours. Direct Testimony of Donn Kolb ("Kolb Testimony"), p. 4, A.7. Damaged tiles must be repaired immediately to prevent this damage. *Id*.

Alamo has not satisfied the requirement in OAC 4906-4-08(E)(2)(c) to provide procedures for avoiding and mitigating damage to field tiles. Some of the tiles in the Project Area have reached or are close to reaching their life expectancy and will need to be replaced completely when they fail, including a main tile that flows from the Project Area through Mr. Kolb's tile. Kolb Testimony, p. 4, A.7. Procedures for these replacement activities will necessitate the temporary removal of solar panels to provide room for the equipment used to replace the tiles, but no such procedures are provided. *Id*. at pp. 4-5. The record does not identify any procedures that will be used to determine whether tiles have been broken, damaged, or deteriorated during project operation, even though tiles reach the end of their usable lives over

time. Herling, Tr. I 60:8 to 61:6. Thus, the Application does not discuss this issue, nor deal with it. Applic., p. 93. Neither does the Amended Stipulation. Kolb Testimony, p. 4, A.7.

In addition, Alamo must provide a procedure for detecting tile damage caused by construction. A construction crew will not be able to tell that a tile has been broken if the posts for the panels are driven into the ground. Kolb Testimony, p. 3, A.7. Clay or plastic tiles offer little resistance to heavy pressure. *Id*. The construction workers will not be able to hear the tiles break over the noise resulting from pounding the metal posts into the ground. *Id*. The Application or Amended Stipulation must be amended to provide a procedure for detecting this tile damage at the time it occurs, rather than waiting for flooding to occur to look for the damage. Without such a provision, the Alamo has not complied with the mandate in OAC 4906-4-08(E)(2)(c)(i) to avoid damage to tiles "to the maximum extent practicable."

Alamo has failed in another way to satisfy the requirement in OAC 4906-4-08(E)(2)(c)(ii) to provide procedures for the "[a]voidance or minimization <u>to the maximum extent practicable</u> of any damage to field tile drainage systems." Emphasis added. To comply with this standard, Alamo must consult with landowners whose land may be affected by any tile that Alamo damages or blocks. *Id*. Consultation with all potentially affected upstream and downstream landowners (both adjacent and non-adjacent to the Project Area) is essential to make sure that the applicant and County Engineer have all of the information they need to address the problem. *Id*. This consultation is necessary to make sure the tile repairs or replacement are effective to correct any drainage problem on the affected landowners' land. *Id*.

Mr. Herling acknowledged that the Application and Stipulation do not require Alamo to consult with adjoining non-participating landowners about how to repair tiles that may affect their drainage. Herling, Tr. I 144:19 to 145:6, 146:4-9. Nor was he willing to agree to a

certificate condition requiring this consultation, arguing that he had to consult with his co-workers first. Herling, Tr. I 145:7 to 146:3.

In addition to the foregoing deficiencies, the Application and the original Stipulation did not require Alamo to contact nonparticipating landowners to obtain information about the locations of their tiles to assist Alamo in avoiding tile damage. At that time, Alamo refused to make a commitment to engage in this act of common sense. The Amended Stipulation now requires Alamo to make those efforts and it has begun that process. Remarkably, however, the Amended Stipulation does not correct any of the other problems noted above, not even the issues that could have been fixed with simple revisions in language.

Alamo has not provided the information required by OAC 4906-4-08(E)(2) for avoiding, mitigating, and repairing damage to drainage tiles. Instead, Alamo and the Staff seek the Board's leave to bypass the rule's requirements and substitute post-certification activities for them. Without possessing this information, the Board has no basis for determining that the Project represents the minimum adverse environmental impact as to drainage tiles.

In sum, Alamo is noncompliant with OAC 4906-4-08(E)(2)(c) in four respects: (1) no procedures have been established to determine whether tiles are broken, damaged, or deteriorated due to old age or other causes during Project operation; (2) no procedures have been mandated for replacing damaged tiles, especially where a long segment has deteriorated due to old age; (3) no procedure has been established for detecting tile damage caused by construction, which cannot be heard over the loud noise of post driving; and (4) no commitment has been established for Alamo to consult with affected non-participating landowners to repair/replace tiles.

F. With Respect To Crime, The Evidentiary Record Does Not Describe Or Evaluate The Reliability Of The Project's Equipment For Preventing Criminal Access To The Facility As Required By OAC 4906-4-08(A), (2) The Board Lacks the Necessary Information On The Nature Of The Probable

Environmental Impact, (3) The Board Lacks The Information Necessary To Determine Whether The Project Represents The Minimum Adverse Environmental Impact, And (4) The Board Erred In Finding That The Project Serves The Public Interest, Convenience, And Necessity.

With respect to crime, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), by failing to require the production of evidence that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3), and by finding that the Project serves the public interest, convenience, and necessity under R.C. 4906.10(A)(6).

OAC 4906-4-08(A) provides:

> (A) The applicant shall provide information on health and safety.
>
> (1) Equipment safety. The applicant shall provide information on the safety and reliability of all equipment.
>
> (a) Describe all proposed major public safety equipment.
>
> (b) Describe the reliability of the equipment.
>
> ****
>
> (d) Describe the measures that will be taken to restrict public access to the facility.

Emphasis added. The Application contains little provision for security to prevent criminals from stealing wire and other recyclable components at the Facility. This makes the Facility an easy target that could attract criminals to the community where they might also harm Concerned Citizens.

While this rule requires Alamo to describe all proposed major public safety equipment, its reliability, and measures to prevent public access, the Application only identifies "perimeter fencing with locked gates" and "warning signage." Applic., p. 54. These generic descriptions do little to satisfy the rule's objective for public safety.

Solar panels contain wire, and thieves love to steal wire. Nevertheless, Alamo shrugs off (at 45) the need for safeguarding its Facility against crime, citing Mr. Herling's testimony that "[w]hen speaking with the Sheriff, he didn't indicate any kind of issues out of the norm." Herling, Tr. I 164:15-16. However, Mr. Herling did not reveal whether he actually asked the sheriff about crime in the area, and Alamo has the duty to investigate this potential hazard so that the Alamo can propose appropriate precautions. So this conversation does not indicate whether or not crime is a problem there.

The solar Facility will be largely isolated. The Application states that "[o]nly a few operational personnel will be needed for the Project, and they will be present at any given location in the Project only occasionally." Applic., p. 75. "On most days, at any particular location at the Project, no operating personnel will be present." Applic., p. 75. Alamo does not plan to have security personnel in the Project Area at night to deter crime. Herling, Tr. I 163:24 to 164:4.

Mr. Herling testified that "it's likely there will be security cameras" and that personnel will do security checks "[p]robably multiple times a week." Herling, Tr. I 127:21 to 128:1. However, these security measures are not laid out in the Application or in the Amended Stipulation. Mr. Herling could not say how frequently the security checks would occur. Herling, Tr. I 128:2-5. He said: "I can't speak to that exactly, no." Herling, Tr. I 128:5. Thus, the unenforceable promises in Alamo's testimony merely highlight its failure to provide measures for public safety.

Mr. Herling testified that each solar field will be fenced with locked gates. Herling, Tr. I 40:8-10. The type of locks has not been decided; Alamo will let the operator decide what type of lock to use. Herling Tr. 40:14-17. They typically have a keypad or padlock. Herling, Tr. I

40:10-13. Mr. Herling does not know if a thief can cut off the locks, because he does not know what kind of lock will be used. Herling, Tr. I 40:18-22.

Mr. Herling thought the solar fields would be surrounded by chain-link fence. Herling, Tr. I 41:11-21. The Application states that "[f]encing is expected largely to be standard, chain-link material." Applic., p. 13. But Mr. Herling testified that the Application does not commit to the type of fence that will be used, because Alamo wants to preserve the option to use wood and other materials. Herling, Tr. I 41:11 to 42:1. He does not know whether thieves could cut through a chain link fence with a blowtorch, but presumes that they can. Herling, Tr. I 42:2-5.

Evidently, Alamo has given little thought to how it will prevent criminal access to its Facility. Certainly, the record lacks the detail necessary to assure the public that the Facility will be designed and operated to prevent an increase in neighborhood crime. By attracting criminals to the community, the Facility will increase crime against the neighborhoods as criminals see and seize opportunities to commit crimes against other persons and their property. The record provides no analysis of crime threats to its Facility, nor does it identify design features or operational practices to reduce criminal threats. As with many other potential problems for this Facility, Alamo has deprived the Board and the public of the information necessary to determine whether and/or to what degree the Facility will harm the public and what measures should be taken to address these threats. Alamo did not add this information to the hearing record, either. A certificate should not be issued without adding a thorough evaluation of this issue.

Whether or not crime is higher than the norm in this area, Alamo has a duty to use effective measures so that its Facility does not attract crime. Neither the Application nor the Amended Stipulation contains these measures as required by OAC 4906-4-08(A)(1), and without them there is no evidence that it represents the minimum adverse impact with regard to crime.

G. With Respect To Groundwater Contamination, (1) The Evidentiary Record Fails to Evaluate The Impact To Groundwater From Contaminants That Might Be Released From Solar Panels By Vandals And Disasters As Required By OAC 4906-4-08(A)(4), (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to groundwater contamination, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

OAC 4906-4-08(A)(4) provides:

> (4) Water impacts. The applicant shall provide information regarding water impacts.
>
> (a) Provide an evaluation of the impact to public and private water supplies due to construction and operation of the proposed facility.
>
> ****
>
> (c) Provide existing maps of aquifers, water wells, and drinking water source protection areas that may be directly affected by the proposed facility.

The Application does not adequately evaluate the impact to underground water supplies from contaminants that could be released from the solar panels by natural disasters or human destruction.

Consequently, the Concerned Citizens request that the Board require Alamo to perform a complete risk assessment (chemicals, weather, fire, theft, etc.) and review of the solar company's risk mitigation plans including training of fire and emergency personnel, etc. to ensure the risk mitigation plans adequately address all of the risks. Clippinger Testimony, p. 15, A.28. Alamo also should conduct an analysis of what wind speeds the solar panels can withstand including an assessment of how the panels are attached to the pilings. *Id*. These studies should be performed

before the Board acts on the Application, so that the certificate, if issued, can include any protective conditions found by the studies to be necessary. Drafts of the consultant(s)' studies should be made available for public comment prior to finalization.

The Concerned Citizens are concerned that the Stipulation does not adequately protect soil and water from contamination that could occur if severe weather arises such as high winds, hail, and the recent tornadoes that hit Preble County and Montgomery County, a fire starts in the solar field, lightning strikes the field, or thieves break or damage the solar panels. Clippinger Testimony, p. 11, A.23. All of these events can release contaminants onto the ground and consequently into the ground water and into the surface water run-off. *Id*. Since literature from Open Road Renewables states the solar panels contain "some chemicals," water and soil contamination are a major concern. *Id*. To ensure a safe water quality throughout the entire project duration, the Concerned Citizens request that the company managing the solar facility fund and jointly select with the Concerned Citizens an independent, third party company to analyze the entire chemical composition of the well water on farms adjacent to the solar farm and in Gasper and Washington Townships. *Id*. The testing should be conducted (1) prior to the start of any construction, (2) annually during every year of facility operation, (3) annually during decommissioning, site clearance, and the return of the land to productive farm use, and (4) at the end of all activity on the site. *Id*. The Stipulation should require the facility to immediate remediate any abnormalities in the chemical composition of the water and to supply replacement water to all impacted individuals so long as the water quality is impacted. *Id*.

Alamo has offered no data about the contaminants in solar panels or their ability to escape into the environment upon destruction of the solar panels. Simply having Mr. Herling say he does not think this is a problem does not satisfy Alamo's burden of proof on this issue.

The Board also should require the Applicant to provide an accurate and complete listing of all water wells and their locations in the vicinity of the Project Area as part of the Application. *Id*. Joanna Clippinger's water well was not included in Figure 8 entitled "Map of Drinking Water Resources" in the supplement to the Application. *Id*. This failure violates the requirement in OAC 4906-4-08(A)(4) for maps of water wells that may be directly affected by the Facility.

H. With Respect To Emergency Services, (1) The Evidentiary Record Does Not Contain Adequate Provision For Emergency Services As Required by OAC 4906-4-08(A)(1)(e), (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, (3) The Board Lacks The Information Necessary To Determine Whether The Project Represents The Minimum Adverse Environmental Impact, And (4) The Board Erred In Finding That The Project Serves The Public Interest, Convenience, And Necessity.

With respect to emergency services, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), by failing to require the production of evidence that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3), and by finding that the Project serves the public interest, convenience, and necessity under R.C. 4906.10(A)(6).

OAC 4906-4-08(A)(1)(e) provides:

> (e) Describe the fire protection, safety, and medical emergency plan(s) to be used during construction and operation of the facility, and how such plan(s) will be developed in consultation with local emergency responders.

The Application contains only a terse statement that Alamo will develop an emergency response plan for law enforcement, fire, medical and ambulance, with a brief list of the types of information that the plan will contain. Applic., p. 55. This is insufficient to safeguard the neighbors from crime, fires, and other emergencies. The Stipulation attempts to fill some of the gaps in the Application, but the Stipulation also fails to adequately protect the public.

The Application fails to provide for protection against criminals who will be attracted to steal the Facility's recyclable materials. The county sheriff's office provides law enforcement services to Gasper Township, but its deputies do not regularly patrol the township. Clippinger Testimony, p. 10, A.21. The county sheriff's office has only two deputies available to patrol the entire county at any given time. *Id*. Their responses to potential thefts or break-ins at the Project could detract from the deputies' needed presence in other areas of the township and county. *Id*. Because the county lacks the funding necessary to hire the deputies necessary to patrol the Project Area, Alamo should be required to provide the county with the funding necessary to hire a deputy for that purpose. *Id*. at p. 15, A.27.

Condition 27 requires Alamo to pay for any specialized equipment necessary to fight fires or respond to emergencies at the Facility. However, the Application also should commit to funding any additional fire and/or emergency response personnel necessary to adequately service the Facility. The Application contains no analysis of the personnel needs that will result from the presence of the Facility, and without this information, the Application provides no assurance of the Facility's safety.

The condition also fails to provide sufficient training for fire and emergency response personnel on how to deal with the particular hazards for the Facility. Although the condition provides for training sessions prior to Facility construction, it requires only periodic safety meetings thereafter. This arrangement fails to provide for adequate training. The volunteer firefighters and emergency responders serving the area have a high turnover rate. Clippinger Testimony, p. 14, A.27; Clippinger, Tr. III 472:8-21. Mr. Herling, based on his own experience in a volunteer EMS, acknowledges that "there's certainly turnover." Herling, Tr. I 150:16-21. So the new personnel would not receive the safety training, but would only hear the information

by word-of-mouth. Herling, Tr. I 159:22 to 160:3. Herling cannot say what information will be included in the periodic safety meetings, because Alamo has not developed the training plan yet. Herling, Tr. I 158:13-18. Therefore, emergency training for local fire and EMS service providers should be held annually during the Project's construction and operation.

The Board's Opinion fails to address the issues described above.

I. With Respect To Motorist Safety At Intersections, The Evidentiary Record Fails To Determine Whether Solar Fences And Other Equipment Will Obstruct Motorist Visibility at Intersections, (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to motorist safety at intersections, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

The Application provides for a 25-foot setback between the Facility fence and the public roads. Applic., p. 54. Condition 3 of the original Stipulation expanded the setback by applying it to the roads' rights-of-way instead of the edges of the roads. Herling, Tr. I 132:21 to 133:1. Condition 3 adds language to make this expansion more explicit.

However, Mr. Herling did not know how much additional distance this added to the setback. Herling, Tr. I 132:2 to 133:23. Although Mr. Robinson stated in his written testimony that the original and expanded setbacks provided enough distance for motorist visibility, he offered no rationale or evidence to support that statement. Co. Exh. 13, Robinson Testimony, p. 10, lines 6-9. He did not even know how much distance was added by the expansion of the setback. Tr. 360:21-24. Moreover, Mr. Robinson is not a traffic engineer; his specialty is to evaluate aesthetic impacts of seeing things. Co. Exh. 13, Robinson Testimony, p. 1, lines 6-11.

His lack of expertise on traffic impacts, plus his failure to provide any data or evidentiary support for his opinion, render his opinion to be of no value whatever. Nor did the Staff's lead reviewer, James O'Dell. O'Dell, Tr. II 420:8-11. Alamo could have provided this information during the supplemental hearing, but failed to do so.

Alamo did not perform the study necessary to determine whether its solar fences and panels will obstruct motorists' views. Nor did Alamo produce any information on the size of the setback necessary to preserve the motorists' line of sight at crossroads. Alamo should have anticipated this visibility problem when it submitted the Application. After all, the Application provides for only a 25-foot buffer between the Facility fences and the roads' edges. Applic., p. 54.

Without knowing the distance between the solar fences and the public roads, the Board has no way of determining whether the solar project will obstruct motorists' views of the crossroads at intersections. Alamo has the burden of proof to demonstrate that its solar facility will not cause this problem, but has not sustained this burden. The Record must be supplemented to supply this information.

J. With Respect To Vegetation, (1) The Evidentiary Record Does Not Provide For The Evaluation Of The Project's Impacts On Vegetation, Measures To Protect Vegetation, Or The Control Of Noxious and Invasive Weeds As Required By OAC 4906-4-08(B)(3), OAC 4906-4-08(B)(2), and OAC 4906-4-08(E)(2)(c), (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to impacts on vegetation, including noxious and invasive weeds, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C.

4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

OAC 4906-4-08(B)(2) provides:

> (2) Ecological impacts. The applicant shall provide information regarding potential impacts to ecological resources during construction.
>
> (a) Describe the mitigation procedures to be utilized to minimize both the short-term and long-term impacts due to construction, including the following:
>
> (v) Methods to protect vegetation in proximity to any project facilities from damage, particularly mature trees, wetland vegetation, and woody vegetation in riparian areas.

OAC 4906-4-08(B)(3) provides:

> (3) Operational ecological impacts. The applicant shall provide information regarding potential impacts to ecological resources during operation and maintenance of the facility.
>
> ****
>
> (b) Describe the procedures to be utilized to avoid, minimize, and mitigate both the short- and long-term impacts of operation and maintenance. Describe methods for protecting streams, wetlands, and vegetation, particularly mature trees, wetland vegetation, and woody vegetation in riparian areas. Include a description of any expected use of herbicides for maintenance.

OAC 4906-4-08(E) provides:

> (E) The applicant shall provide information regarding agricultural districts and potential impacts to agricultural land.
>
> ****
>
> (2) Agricultural information. The applicant shall provide, for all agricultural land, and separately for agricultural uses and agricultural districts identified under paragraph (E)(1) of this rule, the following:
>
> ****
>
> (c) A description of mitigation procedures to be utilized by the applicant during construction, operation, and maintenance to reduce impacts to agricultural land, structures, and practices.

The Board erred in opining that the evidentiary record contains the information required by the Board's rules and R.C. 4906.10(A)(2)with respect to vegetation. OAC 4906-4-08(B)(3) and OAC 4906-4-08(B)(2) require the applicant to provide procedures and methods to protect

vegetation during construction, operation, and maintenance, including a description of herbicide use. OAC 4906-4-08(E)(2)(c) requires the applicant to provide mitigation procedures to prevent damage to agricultural land, such as procedures for preventing noxious or invasive weed species from spreading from the Facility to the neighbors' farmland. Other than generalized and woefully inadequate statements, the record does not contain these procedures and methods. The preliminary landscape plan introduced as an exhibit during the supplemental hearing does not cure this deficiency, since the plan was not made enforceable by incorporating it into the Application or the Amended Stipulation. Condition 18 attempts to compensate for this failure by requiring Alamo to submit a post-certificate vegetation management plan prior to the construction conference. Alamo and the Staff want the Board to let them make landscaping determinations in secret instead of the Board making those decisions in public.

Crop farmers continually have to fight against weeds that damage their crops by competing with the crops for water, nutrients, and space. Clippinger Testimony, p. 7, A.14. Noxious and invasive plant species, if allowed to grow on the Project Area, will spread to the farmers' land, damage their crops, and increase their work to eliminate these weeds. *Id*. Some of these weeds, such as honeysuckle, send down roots that clog drainage tiles. *Id*. at p. 8, A.16. The Concerned Citizens already experience these problems with noxious plant species: thistle, johnson grass, honeysuckle, horse weed, giant ragweed, and especially pig weed. *Id*. at p. 7, A.14. The Project should be required to use only native seeds and plants that are certified to be free of noxious and invasive plant species and should be required to promptly eliminate any noxious and or invasive plants that appear in the Project Area so that they do not spread to nearby farm land. *Id*. at pp. 7-8, A.14.

The Application states that Alamo plans to plant vegetation inside and outside of the solar fields. Applic., pp. 12, 76. However, Alamo provided no procedures for ensuring that its plant seeds do not include weeds that can invade surrounding farm fields and natural areas. Nor did Alamo provide for eradicating honeysuckle and other invasive or noxious plant species that may sprout in the Facility. Instead, the Application only states that operating personnel "may" use herbicides to control noxious weeds, without any enforceable commitment to do so. Applic., p. 76. Nor did Alamo provide any of this information at the hearing. Thus, Alamo has not provided the information required by OAC 4906-4-08(B)(2), OAC 4906-4-08(B)(3), and OAC 4906-4-08(E)(2)(c).

Condition 18 attempts to compensate for the record's deficiency, but the condition itself is deficient. The condition would require Alamo to consult with the Ohio Seed Improvement Association to identify vendors who sell seeds certified to be free of seeds of noxious or invasive weeds. Herling, Tr. I 150:10-16. But Alamo has to plant seeds from these certified vendors only if "practicable", *i.e.*, if this seed is available for the type of ground cover Alamo wants to plant. Herling, Tr. I 149:5-24. If it is not available, Alamo would seek another source of seeds without noxious or invasive weed species seed. Herling, Tr. I 151:9-18. However, Alamo is not willing to agree to a condition requiring the company to do this, so its promise is unenforceable. Herling, Tr. I 151:19 to 152:18.

The Stipulation contains no procedures for controlling invasive and noxious weeds at the Facility. Condition 18 only requires Alamo to submit a post-certificate vegetation plan outlining "the steps to be taken to prevent establishment and/or further propagation of noxious weed identified in OAC 901:5-37 during implementation of pollinator-friendly plantings." This approach has two failings. First, the weed controls required in the vegetation plan appear to be

limited to the area in which pollinators are planted. Second, submitting a post-certificate vegetation plan to the Staff without scrutiny and public comment during the adjudicatory process does not satisfy Alamo's responsibility to include these procedures in the record as mandated in OAC 4906-4-08(E)(2)(c). The preliminary vegetation plan attached to Mr. Robinson's supplemental testimony does not cure this defect, since it is not included in the Application (Herling, Tr. IV 602:21-25) or made enforceable by the Amended Stipulation (Conway, Tr. IV 682:7-12).

Nor, contrary to the Board's Opinion at Page 72, does Stipulation Condition 18 adequately address this issue. Alamo contends that Stipulation Condition 18 will prevent the area's infestation with noxious and invasive weeds. But Condition 18's loopholes make it ineffective. Moreover, while the Board's Opinion states that it is too early to select a seed vendor or seed type, the Application's deficiencies go well beyond seed selection. The requirement in Condition 18 for a post-certificate vegetation management plan to fill those holes is a testament to that fact. In fact, Condition 18 contains a long list of information that should have been included in an adjudicated plan but which the Board is allowing Alamo to belatedly provide in the vegetation management plan, including procedures for herbicide use and noxious weed control.

Thus, Alamo's Project does not pose the minimum adverse environmental impact on vegetation, because (1) Alamo has made no meaningful commitment to plant and maintain new vegetation to replace the crops and trees it will destroy, (2) Alamo has plenty of loopholes to evade enforceable requirements for preventing the spread of noxious and invasive weeds, and (3) the procedures and standards for protection of existing, beneficial vegetation and preventing the

growth of undesirable weed species are left to the future unfettered discretion of Alamo and the Staff through a vegetation management plan negotiated in secret after certification.

K. With Respect To Impacts On Plants And Wildlife, (1) The Evidentiary Record Does Not Contain The Data Required By OAC 4906-4-08(B)(1) To Evaluate The Project's Potential Adverse Impacts on Wildlife And Plants, (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact

With respect to impacts on plants and wildlife, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

OAC 4906-4-08(B) provides:

> (B) The applicant shall provide information on ecological resources.
>
> (1) Ecological information. The applicant shall provide information regarding ecological resources in the project area.
>
> ****
>
> (c) Provide the results of a literature survey of the plant and animal life within at least one-fourth mile of the project area boundary. The literature survey shall include aquatic and terrestrial plant and animal species that are of commercial or recreational value, or species designated as endangered or threatened.
>
> (d) Conduct and provide the results of field surveys of the plant and animal species identified in the literature survey.

Emphasis added. Alamo performed only a partial literature search for animal life in the vicinity of the Project Area as required by OAC 4906-4-08(B)(1)(c), and did not conduct and provide the results of any field surveys for the animal species identified in the literature survey as mandated by OAC 4906-4-08(B)(1)(d). Although the Board's Opinion (at Page 68) states that Alamo consulted with the Ohio Department of Natural Resources, the U.S. Fish and Wildlife Service,

and other government agencies, those agencies do not administer these Board's rules and they would not be expected to opine on whether Alamo's surveys meet the Board's requirements.

Providing a full list of species is not a burdensome requirement. These lists are readily available online from government agencies and nature organizations. All Alamo needed to do was to copy the lists and append them to its Application, as hundreds of other applicants have routinely done in other OPSB applications.

Alamo did not provide a literature survey for all plant and animal life within at least one-fourth mile of the Project Area as required by the first sentence of OAC 4906-4-08(B)(1)(c). The second sentence of this provision, requiring species of commercial and recreational value and endangered or threatened species to be included in the literature survey, does not limit the scope of the first sentence. The failure to catalogue and evaluate all other species in the area left a huge gap in the record's "information regarding ecological resources in the project area" contrary to OAC 4906-4-08(B)(1).

Alamo provided a literature survey for only plant and animal species that are endangered, threatened, of concern, or of special interest. Applic., Exh. G, Appx. C. Cardno's summary of its "desktop" review of species reveals that Cardno did a literature search only for "[m]ajor species, including Federal and State-listed threatened and endangered species." Applic., Exh. G, p. 1-1. This stunted literature search did not even satisfy the requirement in the second sentence of OAC 4906-4-08(B)(1)(c) to search for species of "recreational value," not to mention its bypass of the first sentence's mandate to search for all species. For example, all bird species, not just RTE species, are of recreational value to bird watchers, yet Alamo failed to perform the simple task of looking at the internet to find lists of them in the vicinity of the Project Area.

Even though Alamo's literature survey was incomplete, it still contains hundreds of species for which Alamo failed to search in field surveys. The Alamo representations on Pages 69 and 71 of the Application that it conducted these fields surveys in accordance with OAC 4906-4-08(B)(1)(d) are false. Applic., pp. 69, 71. In fact, the report from Alamo's ecology consultant, Cardno, Inc., expressly admits:

> Energy projects commonly include pre-construction and post-construction monitoring of the Project Area. Surveys include (but are not limited to) researching the biological resources within the Project Area (wetland, waterbodies, etc.,), migration patterns of birds/bats passing through the Project Area, and the protective status of migratory and nesting/resident species in an area where Project infrastructure is being considered. <u>At this time, no species-specific surveys have been conducted for the Alamo Solar Project</u>.

Applic., Exh. G, p. viii (emphasis added).

Cardno's employees visited the Project Area only to conduct surface water delineation surveys and habitat evaluations. Rupprecht, Tr. II 289:17-23. This field work was done for the purpose of looking at the surface waters in the area. Rupprecht, Tr. II 289:21-23.

If the Application's admissions are not convincing enough, Alamo's wildlife witness Ryan Rupprecht <u>admitted</u> that Cardno performed <u>no</u> bird or mammal surveys. Rupprecht, Tr. II 278:11-18. That is, Alamo did not even look for RTE species in the field. Nor did Cardno record the species of birds or mammals seen in the Project Area. Rupprecht, Tr. II 280:8-21. While Cardno's report states that its employees saw no eagle and raptor nests or rare, threatened, and endangered (RTE) species of plants and animals while they were conducting their surface water surveys, the employees did not specifically look for those species or any other wildlife. Applic., p. 71; Applic., Exh. G, pp. 4-6, 4-7, 4.8, and 6-2, §§ 4.4.2.1, 4.4.2.2, 4.4.2.3, 4.4.3.2, and 6.1.2. For example, while the Application states (at p. 71) that Cardno observed no evidence of bat activity, Cardno's reporting on bat activity acknowledges that "the actual utilization of

available habitat could not be determined by Cardno field staff as surveys were conducted during the day." Applic., Exh. G, p. 4-7, § 4.4.2.3. Cardno stated that it did not find RTE plant species during its surface water survey, "however, Cardno did not conduct species-specific surveys for these plants." Applic., Exh. G, p. 4-8, § 4.4.3.2. The Cardno employees who visited the Project Area were not even experts on bird identification. Rupprecht, Tr. II 276:24 to 277:6, 277:13-18. Consequently, the Application's narrative admits that "these field observations did not constitute formal presence/absence surveys for specific species." Applic., p. 71. Nor did Cardno record the species of birds or mammals seen in the Project Area. Rupprecht, Tr. II 280:8-21. As further evidence of these failures, Application Exhibit G contains no checklists of plant, bird, bat, and mammal species and numbers found in the Project Area.

The sum total of Alamo's wildlife observations is contained in Section 6.1.2 of Application Exhibit G, which states:

> Wildlife observations during the field surveys[5] were limited to common species in agricultural areas, including white tailed deer (*Odocoileus virginianus*) and gray squirrels (*Sciurus carolinensis*). Several forested areas were observed to have hunting stands/equipment which may be used to hunt white tailed deer or wild turkey (*Meleagris gallopavo*).
>
> Visual reconnaissance surveys were conducted during the wetland and waterbody delineations and did not observe any RTE species. … During the field surveys, Cardno staff observed minimal wildlife use in the Project Area and observed no RTE species due to the Project Area being relatively low quality and highly disturbed.

Exh. G, Page 6-2 (emphasis added). Merely seeing a squirrel or a deer while looking at a wetland or stream, which is all that Cardno recorded, is not a wildlife survey. Surely the Project Area contains more species than squirrels and deer; yet none are reported.

[5] The references to "surveys" in Application Exhibit G refer to the wetland and surface water surveys, not to wildlife surveys.

Thus, unlike other energy projects that routinely conduct field surveys for plants and wildlife, Alamo chose not to do them even though required by OAC 4906-4-08(B). Nor did Alamo add any such surveys to the record during the hearings. The Board's Opinion glosses over these failures to comply with the rules and R.C. 4906.10(A)(2), and ignores Alamo's admissions that these surveys were not performed.

Cardno found species of trees in the Project Area that are used by bats, including the endangered Indiana bat. Rupprecht, Tr. II 284:13-17, 287:2-10. Five bat species are native to the area. Rupprecht, Tr. II 287:18-22. The U.S. Fish and Wildlife Service recommended a bat survey to look for Indiana bats, but Cardno did not do one. Rupprecht, Tr. II 284:8-10, 286:7-16; also see the U.S. Fish and Wildlife email of July 30, 2018 in Exhibit G of the Application.[6] The Application contains no such survey. See Applic., Exh. G. Cardno did not visit the Project Area at dark, so it would not have expected to see bats during its visits. Rupprecht, Tr. II 287:11-17; Applic., Exh. G, p. 4-7, § 4.4.2.3.

Alamo also argues that the Project Area lacks the habitat conducive to supporting wildlife. But Alamo also failed to perform the plant survey required by OAC 4906-4-08(B) in order to find and evaluate the habitat.

Accordingly, the record does not contain the complete literature survey on plant and animal species required by OAC 4906-4-08(B)(1)(c). It fails to include any of the field surveys required by OAC 4906-4-08(B)(1)(d). While Alamo contends its Facility will not seriously harm wildlife, it has no data to support that claim. A certificate cannot be granted without the

[6] Page 2 of this email states that "we do not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species," i.e., <u>any species other than</u> the Indiana bat and northern long-eared bat referenced earlier in the letter. During the hearing, Alamo attempted to misrepresent this statement as stating that no effects on <u>any</u> endangered species were expected. Rupprecht, Tr. II 304:17 to 305:5, 309:20 to 311:6.

information necessary to determine the Facility's effects on wildlife and to identify mitigation measures necessary to address those effects.

Alamo does not dispute that the Project Area contains habitat for endangered and threatened species of bats. Instead, Alamo promises that it will cut down trees that may host endangered Indiana bats only during the seasons when the bats are hibernating elsewhere "[t]o avoid any adverse impact to the Indiana bat." This is akin to stating that demolishing a family's house while they are away on vacation has no adverse impact on them, because the house did not fall down on them. Habitat loss has a serious negative impact on endangered species such as the Indiana bat.

Alamo contends that, based on Mr. Rupprecht's testimony, relatively few birds and mammals are inhabiting the Project Area and environs due to poor wildlife habitat. Mr. Rupprecht's self-serving opinion is a poor substitute for the actual data required by the Board's rules to prove the veracity or inaccuracy of his unsupported statement.

OAC 4906-4-08(B)(1)(c) and (d) require the applicant to provide reliable literature and field survey data on wildlife so that the Board can determine whether a proposed facility will have the minimum adverse environmental impact on wildlife or cause the wildlife to harm the community. The half-hearted effort to search for wildlife, combined with the failure to report the sighted species, leaves the Board with little information about the wildlife in the Project Area. Alamo has not provided OPSB with this necessary data, instead choosing to argue that the Board does not need it. But the Board is not free to ignore its governing statute (R.C. 4906.10) or its own rules, and Alamo is compelled to comply with them. Without this information, the Board cannot determine that the Facility will have the minimum adverse environmental impact.

L. With Respect To Wildlife Impacts, (1) The Evidentiary Record Does Not Contain The Information Required By OAC 4906-4-08(B)(3) To Assess,

Avoid, And Mitigate Impacts On Wildlife That Will Result In Crop And Livestock Damage On Nearby Farms, (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to wildlife impacts, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

OAC 4906-4-08(B)(3) provides:

> Operational ecological impacts. The applicant shall provide information regarding potential impacts to ecological resources during operation and maintenance of the facility.
>
> ****
>
> (b) Describe the procedures to be utilized to avoid, minimize, and mitigate both the short- and long-term impacts of operation and maintenance.…
>
> (c) Describe any plans for post-construction monitoring of wildlife impacts.

Emphasis added. Because Alamo did not conduct the literature search and fields surveys necessary to identify the plant and animal species in the area, Alamo has also failed to evaluate the Facility's potential impacts on these species during operation and the mitigation measures necessary to minimize that harm. These failures violate OAC 4906-4-08(B)(3).

In addition, Alamo failed to evaluate the potential impacts on deer, raccoon, and coyote populations excluded from the Project Area by fencing the solar fields. Deer, coyotes, and other wildlife frequent the farm fields in and near the Project Area. Clippinger Testimony, p. 9, A.18. Ms. Clippinger testified that she often sees deer and other animals in these fields, including the fields in the Project Area. *Id.* She produced photographs of a deer in her corn field, and damage caused by deer eating the corn in her field. *Id.*, Exhs. B and C. The Project will be surrounded by fences that keep deer, coyotes, and other animals out of the Project Area. Clippinger

Testimony, p. 9, A.18. This will reduce the area available for these animals to roam and forage, which will force them to roam on surrounding lands where they will eat the Concerned Citizens' crops, and on public roads, where they will be prone to vehicle collisions. *Id.* The Concerned Citizens already experience substantial crop damage from wildlife, and the Project is expected to increase these losses. *Id.* If the coyotes' range is reduced by the fences, they are more likely to congregate near Ms. Clippinger's farm and attack her calves. *Id.* Deer and other animals from the Woodland Trails facility already enter her land to eat the crops, and decreasing their foraging area by fencing off the Project Area will increase her crop damage. *Id.*

The reduction of space for deer to occupy will pack them closer together, making the spread of disease easier among them. Clippinger Testimony, p. 9, A.19. Lepto and Tuberculosis are two diseases common in deer that also infects cattle. *Id.*

Alamo's wildlife witness, Ryan Rupprecht, did not dispute that deer, raccoons, and coyotes may be present in and around the Project Area. Rupprecht, Tr. II 278:24 to 279:6, 282:2-7. He agreed that deer will not be able to use the Project Area for foraging once the project is fenced. Rupprecht, Tr. II 281:8-13.

While Alamo argues that the Project Area lacks the habitat conducive to supporting wildlife, Alamo failed to perform the plant survey required by OAC 4906-4-08(B) in order to evaluate the habitat. Consequently, except for some limited plant identification in wetlands and waterbodies, the record contains no data for the Board's scrutiny to determine whether the plants in and along the Project Area's ditches, hedgerows, and woods are capable of hosting wildlife that may be using the soon-to-be-destroyed crop fields for consuming insects (a necessary activity for birds and bats), foraging on and among the crops, or other uses. Nor did Alamo look to see if wildlife is actually using this habitat or the fields themselves for feeding, living, or

reproduction, including the foraging of grain left on the fields after harvest that feeds resident and migratory birds, raccoons, deer, and other animals.

The record contains no survey data on the size of the deer, raccoon, and coyote populations that use the Project Area for foraging and hunting. Cardno saw deer during its surface water survey, but Rupprecht did not know how many deer were seen. Rupprecht, Tr. II 278:24 to 279:6. Cardno did not ask the area residents about their observations of deer in the area. Rupprecht, Tr. II 311:25 to 312:6.

Mr. Rupprecht attempted to compensate for the absence of wildlife data in the Application by concocting a desktop calculation with internet records to predict the number of deer that would be diverted from the Project Area into the surrounding crop fields and community. Rupprecht, Tr. 219:5 to 223:8. He even went so far as to assume that the results of his deer calculation also would apply to coyotes, even though he had no population data on coyotes. Rupprecht, Tr. 231:5 to 232:8. However, Rupprecht's testimony does not reveal any expertise on deer or other animals. Without any such expertise, he did not have the qualifications necessary to calculate the additional number of deer or coyotes that will afflict the surrounding neighborhood due to displacement from the Project Area. The Board should not accept as accurate a calculation from someone without the expertise to perform it.

Alamo's understandable lack of confidence in this calculation is betrayed by its decision to withhold the calculation from the Application rather than subjecting it to Staff and public scrutiny. No information on this calculation was included or even mentioned in the Application. Co. Exh. 1. The Board should not trust a calculation done without objective data on animal populations from a survey of the Project Area by an individual with no expertise to perform it.

The Application contains no reliable data on the size of the deer and coyote populations that use the Project Area for foraging and hunting. Consequently, Alamo has not provided the data necessary to determine whether wildlife displacement from the Project Area will damage the Citizens' crops or endanger their calves. Lacking this data, Alamo has also failed to determine what mitigation may be necessary to address this problem pursuant to OAC 4906-4-08(B)(3)(b). The record also fails to provide for the post-construction monitoring of wildlife impacts to determine what damage the displaced animals are wreaking on the neighbors' crops and calves as required by OAC 4906-4-08(B)(3)(c). No certificate can be issued until these corrections are made to comply with OAC 4906-4-08(B)(3). Consequently, the record lacks the data necessary to determine whether wildlife displacement from the Project Area will damage the Concerned Citizens' crops or endanger their calves.

Lacking this data, the record also fails to determine what mitigation may be necessary to address this problem pursuant to OAC 4906-4-08(B)(3)(b). OAC 4906-4-08(B)(3)(b) requires the Application to contain information about potential impacts to ecological resources during the operation and maintenance of a facility, including measures to mitigate the Project's adverse impacts. Alamo has not provided OPSB with the information necessary to evaluate and mitigate damage to the neighbors' crops from wildlife diverted from the Project Area into the neighbors' fields. Without this information, the Board cannot determine that the Facility will have the minimum adverse environmental impact.

The record also fails to provide for the post-construction monitoring of wildlife impacts to determine what damage the displaced animals are wreaking on the neighbors' crops and calves as required by OAC 4906-4-08(B)(3)(c). No certificate can be issued until these corrections are made to the Application to comply with OAC 4906-4-08(B)(3).

M. With Respect To Drainage, (1) The Evidentiary Record Does Not Provide The Data On The Quantity Of And Mitigation Measures For The Surface Water Draining From The Facility Required By OAC 4906-4-07(C) And OAC 4906-4-08(A)(4)(e), (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to drainage impacts, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by finding that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

1. OAC 4906-4-07(C) Requires Alamo To Quantify Flows Whether Or Not An Increase In Flow Is Expected.

OAC 4906-4-07(C) provides:

> (C) The applicant shall provide information on compliance with water quality regulations.
>
> ****
>
> (2) The applicant shall provide information regarding water quality during construction.
>
> ****
>
> (b) Provide an estimate of the quality and quantity of aquatic discharges from the site clearing and construction operations, including runoff and siltation from dredging, filling, and construction of shoreside facilities.
>
> (c) Describe any plans to mitigate the above effects in accordance with current federal and Ohio regulations.
>
> (d) Describe any changes in flow patterns and erosion due to site clearing and grading operations.
>
> ****
>
> (3) The applicant shall provide information on water quality during operation of the facility.
>
> ****
>
> (d) Provide a quantitative flow diagram or description for water and water-borne wastes through the proposed facility, showing the following potential sources of pollution, including:
>
> ****

(vii) Run-off from soil and other surfaces.

Emphasis added. The underlined language requires the applicant to quantify the amount of water that will flow off the Project Area during construction and operation. Notably, the rule contains no exception for projects whose applicants claim that no flow increase will occur. For example, OAC 4906-4-07(C)(3)(d) requires an applicant to quantify the stormwater runoff from the soil and other surfaces that have the potential to wash soil into a stream, and this requirement applies regardless of whether the flow will increase, decrease, or stay the same. In fact, the flows have to be quantified in order to figure out whether the flows will increase, decrease, or stay the same. Alamo can avoid the requirements of this rule only if no stormwater runoff will occur during Facility construction and operation, and this runoff will occur during both the construction and operation phases of the project.

OAC 4906-4-08(A)(4) provides:

> Water impacts. The applicant shall provide information regarding water impacts
>
> (e) Provide an analysis of the prospects of floods for the area, including the probability of occurrences and likely consequences of various flood stages, and describe plans to mitigate any likely adverse consequences.

Alamo also has not provided the information required by OAC 4906-4-08(A)(4)(e) for analyzing the prospects of floods for the area, including the probability of occurrences and likely consequences of various flood stages. Nor does the record contain any plans to mitigate any likely adverse consequences.

The record contains no data on the quantity of stormwater runoff during the construction or operation of the Facility. Noah Waterhouse, Alamo's hydrology expert, admitted that no efforts have been made to model or otherwise quantify the amount of water that will flow from the Project Area. Waterhouse, Tr. I 203:19-22, 204:14-20. Condition 29 requires pre- and post-

construction stormwater calculations to be performed after a certificate is issued, but this requirement does not improve the record.

Alamo shrugs off the requirements to quantify stormwater runoff in the record. The Application claims, without support from any data, that Alamo does not have to comply with this rule because Alamo does not anticipate "changes in flow patterns and erosion." Applic., p. 46. The Application asserts that the Project Area "already is level and very little, if any, grading will be needed." Applic., p. 46. That is, Alamo asserts that its activities will not increase the amount of stormwater flow from the Project Area. These assertions are irrelevant to whether Alamo is required to comply with OAC 4906-4-07(C), which applies if any stormwater flow will occur.

On the other hand, other information in the Application betrays Alamo's position as false by admitting that stormwater flow will occur. This information is contained in a report by Alamo's contractor, Hull & Associates, Inc., that is included in the Application. Applic., Exh. F. The report makes the following recommendations:

> Adequate surface water run-off drainage should be established at each solar array, access road, and the switchyard location to minimize any increase in the moisture content of the subgrade material. Positive drainage of each solar array site and access road location should be created by gently sloping the surface toward existing or proposed drainage swales. Surface water runoff should be properly controlled and drained away from the work area.

Id., p. 6. These instructions direct Alamo to drain its construction sites into drainage swales in order to keep the sites dry. Alamo is required to implementing these directions, because they are included in the Application that Alamo is required to implement. This means that stormwater runoff from the Facility will flow into waters of the state.

The foregoing excerpt from Application Exhibit F reveals that construction will change slopes, move dirt, and modify the drainage patterns of the project area. OAC 4906-4-07(C)(2)(d) states that an application must "[d]escribe any changes in flow patterns and erosion due to site

clearing and grading operations." Emphasis added. Yet the record contains none of that information.

In addition, Alamo's position disregards the language of OAC 4906-4-07(C). Only one of these regulatory requirements requests information about changes in flow. OAC 4906-4-07(C)(2)(d) (stating that an applicant must "[d]escribe any changes in flow patterns and erosion due to site clearing and grading operations") (emphasis added). The other cited provisions require applicants to quantify stormwater flow whether or not an increase is anticipated. OAC 4906-4-07(C)(2)(b) (requiring "an estimate of the … quantity of aquatic discharges from the site clearing and construction operations") (emphasis added); OAC 4906-4-07(C)(3)(d)(vii) (requiring a "quantitative flow diagram or description for water … through the proposed facility … including … [r]un-off from soil and other surfaces" during facility operation) (emphasis added). Alamo has failed to comply with these requirements, because it did not quantify the stormwater flowing from the Project Area during construction or operation.

Although the Application, without citing any evidence, asserts that Facility construction "will not cause any aquatic discharges" (Applic., p. 46), the falsity of this statement is betrayed by the requirement in Condition 29 that Alamo must obtain a "General Permit Authorization for Storm Water Discharges … Associated with Construction Activities"[7] if construction disturbs one acre or more of ground. Alamo will disturb much more than one acre. Application Figure 17 reveals that 969.1 acres of land will be disturbed, including 898 acres of solar fields, 28.6 acres for the AC collector system, 19.1 acres of roads, and three acres for the substation. The foundation for the substation alone, at 50,000 square feet in size, will occupy more than one acre of ground that will be disturbed during construction. Applic., p. 9.

[7] The condition contains two typographical errors in the permit's title. The word "construction" appears only once in the title, not twice as stated in the condition. "Activities" at the end of the title should be "activity."

The Ohio EPA storm water permit, as its name suggests, governs storm water discharges from construction activities. The fact that Alamo is required to obtain such a permit is proof that its construction activities will discharge storm water into waters of the state. Matt Marquis' supplemental testimony admits this fact. Co. Exh. 18, p. 3, line 19 to p. 4, line 3. These construction activities include road building that increases runoff into streams, as noted in the transcript quotation below. Waterhouse, Tr. I 200:11-20.

To comply with OAC 4906-4-07(C), Alamo needed to perform a hydrology study to quantify the flows from the Project Area. A hydrology study is a common requirement in projects of this nature, as revealed in Noah Waterhouse's testimony:

> Q. Okay. Will the compaction of that road increase the amount of flow into that – into that ditch?
>
> A. Yes, the runoff from the road, from the area of the roads would increase compared to the existing or pre-project conditions, but we do a full site-wide hydrology analysis and we will compare existing conditions pre-project to post-conditions for the single purpose of being able to show that we're not increasing any rate or any volume of runoff after the Project is completed. That's a typical requirement of most permitting agencies at state or local levels.

Waterhouse, Tr. I 200:8-20. Thus, Alamo plans to perform a hydrology study to determine the amount of the surface water flows from the Project Area will increase after the solar project is built and to determine whether government drainage requirements are met. Waterhouse, Tr. I 200:13-20, 201:15-23, 202:3-23. "[T]he purpose would typically be to show how the Project itself impacts runoff from the site to where the runoff is going." Waterhouse, Tr. I 202:15-17. "[O]ne of the goals is to figure out how it impacts and if it was going to be increased or decreased." Waterhouse, Tr. I 202:21-23.

Despite the necessity of this study, Alamo has no plans to conduct it before the certificate is issued. Waterhouse, Tr. I 200:21-23. And even then, Mr. Waterhouse was not sure whether

Alamo would share the study's results with the Board. Waterhouse, Tr. I 201:5-9. The Condition 29 requires a hydrology study, but this does not cure Alamo's failure to quantify surface water flows in the Application.

Without a hydrology study in the record, OPSB has no way of knowing whether the Facility's construction and/or operation will cause drainage and flooding problems in neighboring properties. Drainage swales are common in fields to be used for solar panels in the Project Area, and they flow onto neighboring land. Rupprecht, Tr. II 292:16-19, 293:6-9; Waterhouse, Tr. I 205:2-5; DeLuca Testimony, pp. 2-3, A.7.

In the supplemental hearing, Alamo promised to conduct its construction in accordance with Ohio EPA's General Permit for Stormwater Discharges Associated with Construction Activities. Condition 29 would not require Alamo to obtain such a permit if its construction activities were not going to discharge storm water into waters of the state. Matt Marquis' supplemental testimony admits this fact, since Alamo would not be required to obtain a permit authorizing discharges if it were not going to discharge. Co. Exh. 18, Marquis Suppl. Testimony, p. 3, line 19 to p. 4, line 3.

Stormwater runoff also will occur during Facility operation. Mr. Marquis' supplemental testimony states that "Condition 29 will help to ensure that post-construction stormwater flows are appropriately managed," which acknowledges that stormwater flows will occur. Co. Exh. 18, p. 5, lines 5-6. The Ohio EPA guidance on storm water controls for solar panel arrays marked as CCPC Exhibit 9 states that solar panels "alter the volume, velocity and discharge pattern of storm water runoff." CCPC Exh. 9, p. 1. Mr. Marquis agreed with this statement. Marquis, Tr. IV 670:5-10. The operating Facility also will discharge storm water from rainfall through the tiles.

Most notably, Condition 29 requires Alamo to perform pre- and post-construction stormwater calculations if construction will disturb more than one acre of ground. That is, this condition requires Alamo to collect some of the information about the quantity of flows, but only after certification, that OAC 4906-4-07(C) requires be included in the record. Obviously, if no stormwater will run off the land in the Project Area during construction and operation, then there would be no need for an Condition 29 to calculate the flows. Without runoff, no such calculations could be made. This is persuasive evidence that all stipulating parties realized that stormwater runoff will occur.

Since solar facility construction activities and operating solar facilities discharge storm water, Alamo was required to supply water quantity data about both under OAC 4906-4-07(C)(2). To quantify flows, Alamo needed to perform a hydrology study to quantify the flows from the Project Area. Alamo has failed to quantify surface water flows, and that failure is not cured by the Amended Stipulation.

Instead, the Board (at Page 63) relies on Noah Waterhouse's statements that solar facilities generally do not cause drainage problems. However, this is a thin basis for such an opinion, since Mr. Waterhouse has been involved in troubleshooting drainage tile problems at only one small operating solar facility. Waterhouse, Tr. I 179:9 to 180:14.

Like Mr. Waterhouse, Matt Marquis offered general statements in lieu of actual data to assert that the Facility will not cause drainage problems. Alamo recites (at 34) his testimony that vegetation beneath the solar panels will manage stormwater, but this statement admits that stormwater flows will occur, and it says nothing about stormwater impacts during construction before that vegetation starts growing.

In the supplemental hearing, Alamo promised to conduct its construction in accordance with Ohio EPA's General Permit for Stormwater Discharges Associated with Construction Activities, but this promise does not add any data on the quantity of stormwater discharges to the record for the Board's evaluation of potential flooding or water quality impacts. It only promises to collect that data after certification.

The generalized opinions of Alamo's witnesses that stormwater is not expected to cause problems do not satisfy the Board's rules. The Board's rules are designed to elicit scientific data from applicants, not rely on guesswork. Even Mr. Waterhouse acknowledged that hydrology studies are typically prepared for government agencies to provide surface water data. Waterhouse, Tr. I 200:8-20. He acknowledged that a hydrology study will be necessary for this Facility. Waterhouse, Tr. I 200:13-20, 201:15-23, 202:3-23. If a generic prediction, such as the Waterhouse statements, were adequate to evaluate surface water drainage, then hydrology studies would not be routinely performed.

Moreover, if such generic statements were adequate to guard against drainage problems, then OAC 4906-4-07(C) and OAC 4906-4-08(A)(4)(e) would not have been promulgated to require detailed water quantity data and mitigation measures in the record. Neither Alamo nor the Board is free to bypass these requirements. And without this data, the Board has no basis to determine that the Project represents the minimum adverse environmental impact with regard to surface water issues.

2. The Evidentiary Record Does Not Contain The Data Necessary To Determine Whether Construction And Operation Of The Facility Will Increase Stormwater Runoff.

Although an increase in flows is unnecessary to trigger the requirements of OAC 4906-4-07(C), Alamo's Facility will increase stormwater flows. The Application presents no evidence to the contrary. It just asserts over and over, without evidence, that no increase will occur.

The record presents no evidence that the Project's activities will not increase the flows from the site. To the contrary, Alamo's Application reveals that Alamo will likely increase the amount and speed of surface water flows during construction and operation, but the record neglects to describe these changes as required by OAC 4906-4-07(C). The record also does not contain the information required by OAC 4906-4-08(A)(4)(e) for analyzing the prospects of floods for the area, including the probability of occurrences and likely consequences of various flood stages, along with plans to mitigate any likely adverse consequences. The record contains no data on the quantity of stormwater flows during construction or operation of the Facility.

While Alamo contends that it will plant vegetation in the solar fields to absorb more precipitation and decrease runoff, this does not address potentially increased flows during construction. Alamo's Route Evaluation Study reveals that "[c]onstruction equipment such as excavators, bull dozers, and wheel tractor-scrapers will be transported to the site." Applic., Exh. D, p. 2, § 1.4. Since these machines are used only to move dirt, their planned use contradicts Alamo's representation that little or no grading will occur. Alamo has done no work to find out whether grading will be necessary. Herling, Tr. I 65:19 to 66:20. So the record lacks the information necessary to ascertain how much grading actually occur. The record does not contain a grading plan to show where grading will occur; that plan will be discussed with the Staff and submitted after the certificate is issued. Herling, Tr. I 64:24 to 66:20.

Moreover, Alamo admitted that soil compaction will occur during construction, especially in access road areas. Herling, Tr. I 71:23 to 72:1. Traffic has the potential to compact

the roads. Herling, Tr. I 76:20 to 77:2. The project will contain 12.19 acres of permanent roads with gravel on them. Herling, Tr. I 76:5-14. There may be an additional 6.88 acres of temporary roads during construction. Herling, Tr. I 76:8-11. After construction is finished, the access roads inside the Facility will still be compacted during Facility operation. Waterhouse, Tr. I 198:5-8. Some compaction also is likely in the solar fields. Herling, Tr. I 72:7-10.

The compacted roads will increase the amount of flow into the existing ditches. Waterhouse, Tr. I 200:8-13. Moreover, Alamo has not yet determined whether it will slope the land in the Project Area. Herling, Tr. I, 70:10-19. Thus, stormwater flows could increase during construction and operation. Certainly, Alamo has not conducted the study necessary to determine whether flows will increase or not.

Alamo has violated OAC 4906-4-07(C)(2)(b) by failing to quantify surface water flows during construction and operation of the Facility. Alamo has the burden of proof to demonstrate whether flows will increase and, if so, by how much. Alamo plans to conduct a hydrology study and prepare storm water pollution prevention plan ("SWPPP") that will quantify storm water flows and prevent flooding, but the SWPPP will not be prepared until after certificate issuance under Condition 16. Without this data, the record does not and cannot identify any mitigation measures that may be necessary to protect neighbors from flooding and drainage problems caused by Alamo's activities as required by OAC 4906-4-07(C)(2)(c) (requiring the applicant to "[d]escribe any plans to mitigate the above effects in accordance with current federal and Ohio regulations") and OAC 4906-4-08(A)(4)(e) (requiring "plans to mitigate any likely adverse consequences" of flooding). Emphasis added. The Board cannot issue a certificate based on such a deficient record.

Despite the lack of statistical data on the quantity of runoff, the Board's Opinion (at Page 63) states that Conditions 16 and 29 are "integral" to the Board's decision that drainage problems will not occur. Specifically, the Board's Opinion (at Page 63) assures the public that drainage problems will be avoided by requiring Alamo to follow the requirements of Ohio EPA's Construction Storm Water General Permit and two tools used to comply with that permit: a Storm Water Pollution Prevention Plan ("SWPPP") and Ohio EPA's "Guidance on Post-Construction Storm Water Controls."

However, none of the foregoing tools are designed to address flooding. They only reduce pollution from erosion, as stated in the Ohio EPA rule authorizing the issuance of that general permit: .

> No person may discharge any pollutant or cause, permit, or allow a discharge of any pollutant from a point source without applying for and obtaining an individual NPDES permit in accordance with Chapter 3745-33 of the Administrative Code or obtaining authorization to discharge under a general NPDES permit in accordance with this chapter.

OAC 3745-38-02(A)(1) (emphasis added). Similarly, OAC 3745-38-02(B)(2) provides: "The general NPDES permit may be written to regulate, within the area described in paragraph (B)(1) of this rule, any of the following: (a) Storm water point sources…." A "point source" is any pipe or other conveyance "from which pollutants are or may be discharged. OAC 3745-38-01(Q). Thus, the Construction Storm Water General Permit and its implementation tools regulate pollutants from construction discharges, not the quantity of the water being discharged. Consequently, Conditions 16 and 29 do nothing to prevent flooding.

In addition, rather than figuring out whether the Project will cause flooding or other problems as required by law, the Board is casting its duties on other agencies and the Staff to address the Project's drainage issues. This violates the Board's responsibilities to implement

OAC 4906-4-07(C) and OAC 4906-4-08(A)(4)(e), determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and determine whether that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

N. With Respect To Water Quality, (1) The Evidentiary Record Does Not Provide The Data On The Quality Of And Mitigation Measures For The Surface Water Draining From The Facility Required By OAC 4906-4-07(C), (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to water quality, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

OAC 4906-4-07(C) provides:

> (C) The applicant shall provide information on compliance with water quality regulations.
>
> (1) The applicant shall provide information regarding preconstruction water quality and permits.
>
> (a) Provide a list of all permits required to install and operate the facility, including water pollution control equipment and treatment processes.
>
> ****
>
> (d) Describe the existing water quality of the receiving stream based on at least one year of monitoring data, using appropriate Ohio environmental protection agency reporting requirements.
>
> (e) Provide available data necessary for completion of any application required for a water discharge permit from any state or federal agency for this project. Comparable information shall be provided for the proposed site and any proposed alternative site(s).
>
> (2) The applicant shall provide information regarding water quality during construction.
>
> ****

> (b) Provide an estimate of the quality and quantity of aquatic discharges from the site clearing and construction operations, including runoff and siltation from dredging, filling, and construction of shoreside facilities.
>
> (c) Describe any plans to mitigate the above effects in accordance with current federal and Ohio regulations.
>
> (d) Describe any changes in flow patterns and erosion due to site clearing and grading operations.
>
> (e) Describe the equipment proposed for control of effluents discharged into bodies of water and receiving streams.

Emphasis added. The emphasized language above requires the applicant to submit information about the quality of surface water flows from the Project Area during construction and operation, such as sediment from erosion carried into the streams. The record contains none of this information.

As explained in the previous section of this brief, Facility construction and operation will discharge storm water into waters of the state. The Ohio EPA guidance on storm water controls for solar panel arrays marked as CCPC Exhibit 9 states that solar panels "alter the volume, velocity and discharge pattern of storm water runoff." CCPC Exh. 9, p. 1. Mr. Marquis agreed with this statement. Marquis, Tr. IV 669:16 – 700:1. Although he said that the vegetation beneath the solar panels manages the storm water, he also agreed that storm water discharges occur from solar fields. Marquis, Tr. IV 669:16 – 700:20. The drainage tiles that inhabit the Project Area will continue to discharge water from the solar Facility after construction. See Co. Exh. 17, Waterhouse Suppl. Testimony, p. 2, lines 8-9 (stating that Condition 16 will ensure the protection of drain tile and "existing drainage" in the Project Area). The operating Facility will discharge storm water from rainfall over the land and through the tiles. Waterhouse, Tr. I 197:7-25. Since solar facility construction and operating solar facilities both discharge storm water, Alamo was required to provide water quality data about both under OAC 4906-4-07(C)(1).

Rather than providing the required data, Alamo defies these requirements. The Application claims, without support from any data, that Alamo does not have to comply with this rule because Alamo does not anticipate "changes in flow patterns and erosion." Applic., p. 46. The Application asserts that the Project Area "already is level and very little, if any, grading will be needed." Applic., p. 46. As discussed above relative to Alamo's failure to quantify its surface water discharges, Alamo's claim that little or no grading will occur is suspect.

As with its attempt to evade the water quantification requirements of this rule, Alamo's position on water quality also disregards the language of this rule. Only one of these regulatory requirements requests information about changes in flow. OAC 4906-4-07(C)(2)(d) (stating that an application must "[d]escribe any changes in flow patterns and erosion due to site clearing and grading operations") (emphasis added). The other cited provisions require applicants to qualify stormwater flow whether or not an increase is anticipated.

Pursuant to OAC 4906-4-07(C)(1), Alamo acknowledges that its project construction necessitates an Ohio EPA construction stormwater permit that "requires development of a proposed storm-water pollution prevention plan ("SWPPP") for erosion control and storm-water management." Applic., p. 45. The purpose of this plan is to minimize the runoff of erosion and silt from land into surface waters. Herling, Tr. I 147:2-8.

Condition 16 requires Alamo to submit the required SWPPP, but only after a certificate is issued. This plan has not yet been prepared. Herling, Tr. I 146:20-21. For this reason, the record is missing much of the information required by OAC 4906-4-07(C).

A SWPPP describes the best management practices (BMPs) that will be followed to mitigate the runoff of sediment into streams. Waterhouse, Tr. I 207:22 to 208:1. The BMPs can include silt fences or retention basins. Waterhouse, Tr. I 208:17-25. The plan would show the

locations of the BMPs. Waterhouse, Tr. I 208:2-4. However, the record does not identify the BMPs, equipment, or any other measure that will be taken to mitigate the effects from the quality of aquatic discharges from site clearing and construction operations, in violation of the mandate in OAC 4906-4-07(C)(2)(c) and (e).

According to Mr. Waterhouse, "[t]here's some calculations involved" in preparing the SWPPP. Waterhouse, Tr. I 208:2. The SWPPP contains "water-quality data" or other "data that provides the basis for the design of the BMPs." Waterhouse, Tr. I 208:7-10. This data usually includes a hydrology study. Waterhouse, Tr. I 208:11-16. However, the record contains none of this data, even though OAC 4906-4-07(C)(1)(e) requires the applicant to "[p]rovide available data necessary for completion of any application required for a water discharge permit from any state or federal agency for this project."

OAC 4906-4-07(C)(1)(e) requires the applicant to "[p]rovide an estimate of the quality … of aquatic discharges from the site clearing and construction operations." The record contains no information about the quality of these discharges.

Contrary to OAC 4906-4-07(C)(2)(d), the record contains no information to "[d]escribe any changes in flow patterns and erosion due to site clearing and grading operations." Contrary to OAC 4906-4-07(C)(2)(a), the record does not contain a map indicating the locations of water monitoring and gauging stations to be utilized during construction.

Although Alamo represents that little earth-moving and grading will occur during construction, the Facility's construction actually will disturb the soil on 48 acres of soil. Applic., Exh. G, p. 7-3, Tables 7-2 and 7-3. So stormwater from the Project Area obviously will flow into nearby streams. OAC 4906-4-07(C)(1)(d) & (e) and 4906-4-07(C)(2)(b), (c), (d), & (e)

require Alamo to provide water quality data so the Board can evaluate the impact of these discharges.

While Alamo may point out that only the "available" data needs to be provided under OAC 4906-4-07(C)(1)(e), Alamo has not bothered to find out what data is available for that purpose. Note also that the water quality data required by the other provisions of this rule are not limited to "available" data. *See* OAC 4906-4-07(C)(1)(e) and 4906-4-07(C)(2)(b), (c), (d), & (e).

OPSB's rule requires the applicant to contain pre-construction data and post-construction data on water quality so that the water quality effects of the Project's construction on the receiving streams can be assessed. The record contains neither pre-construction nor post-construction data. The record does not describe the existing water quality of the receiving streams based on at least one year of monitoring data using appropriate Ohio Environmental Protection Agency reporting requirements as required by OAC 4906-4-07(C)(2)(d).

Alamo admits that it will be required to obtain pollution control permits for the discharges of eroded sediment from its construction activities. Nevertheless, Alamo did not point to any water quality data in the record meant to satisfy the requirements in OAC 4906-4-07(C). The record is entirely devoid of this required information. Instead, Alamo dismissively implies that not much pollution is expected from its construction activities. This argument entirely misses the point of the mandates in this rule. This rule requires the record to contain the water quality data so that the Board can determine whether polluted runoff will be a problem. Alamo's ungrounded assertion that it will not be a problem does not enable the Board to independently evaluate this issue rather than deferring to Alamo's unsupported assertion. Without this data, the Board lacks the information necessary to determine whether the Project

represents the minimum adverse environmental impact with regard to the water quality of its discharges.

Alamo promises to apply for a General Permit for Stormwater Discharges Associated with Construction Activities from Ohio EPA pursuant to Condition 29, including the development of a Stormwater Pollution Prevention Plan "for erosion control and the management of stormwater." This is consistent with the Application's statement that "soil erosion and sedimentation control measures will be installed within and along the proposed construction area, equipment laydown areas, access roads, and other work areas." Applic., Exh. G, p. 1-4. The Application further promises to employ best management practices ("BMPs") to minimize sedimentation and erosion. *Id*., p. 1-5. These statements in Condition 29 and the Application about the necessity for erosion and sedimentation controls betray Alamo's realization that the Project will cause erosion and sedimentation into the vicinity streams. The record fails to describe these changes in erosion in any fashion.

Although Alamo represents that little earth-moving and grading will occur during construction, the Facility's construction actually will disturb the soil on 48 acres of soil. Applic., Exh. G, p. 7-3, Tables 7-2 and 7-3. So stormwater from the Project Area obviously will flow into nearby streams. OAC 4906-4-07(C)(1)(d) & (e) and 4906-4-07(C)(2)(b), (c), (d), & (e) require Alamo to provide water quality data so the Board can evaluate the impact of these discharges.

While Alamo may point out that only the "available" data needs to be provided under OAC 4906-4-07(C)(1)(e), Alamo has not bothered to find out what data is available for that purpose. Note also that the water quality data required by the other provisions of this rule are not limited to "available" data. *See* OAC 4906-4-07(C)(1)(e) and 4906-4-07(C)(2)(b), (c), (d), & (e).

OPSB's rule requires the applicant to provide pre-construction data and post-construction data on water quality so that the water quality effects of the Project's construction on the receiving streams can be assessed. The record contains neither pre-construction nor post-construction data. The record does not describe the existing water quality of the receiving streams based on at least one year of monitoring data using appropriate Ohio environmental protection agency reporting requirements as required by OAC 4906-4-07(C)(2)(d).

Although Alamo promises to develop a SWPPP to comply with Condition 29 after certification, the record does not contain pre-construction data and post-construction data on water quality so that the water quality effects of the Project's construction on the receiving streams can be assessed. Nor does the Application or the Amended Stipulation contain the information about how Alamo will prevent harm to the receiving streams from its stormwater discharges as required by OAC 4906-4-07(C)(2)(c). Instead, Alamo just promises to obtain this information after certification by obtaining a permit and developing a SWPPP with a hydrology study. Thus, the information in the record is deficient and the certificate must be rejected.

Because the record lacks the information required by rule to evaluate the quality of water from the Facility during construction, OPSB cannot issue the certificate based on this record. Without this data, the record does not and cannot identify any mitigation measures that may be necessary to protect neighbors' and the public's surface waters as required by OAC 4906-4-07(C)(2)(c) and (e). The Board cannot issue a certificate based on such a deficient record. Nor can the Board find that the Project complies with R.C. 4906.10(A)(2) and (3).

O. With Respect To Solid Waste, (1) The Evidentiary Record Does Not Estimate The Volume Of Solid Waste And Debris Generated During Construction, Or The Debris' Disposal Destination Required By OAC 4906-4-07(D), (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to solid waste, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

OAC 4906-4-07(D) provides:

> The applicant shall provide information on compliance with solid waste regulations.
>
> ****
>
> (2) The applicant shall provide information regarding solid waste during construction.
>
> (a) Provide an estimate of the nature and amounts of debris and other solid waste generated during construction.
>
> (b) Describe the proposed method of storage and disposal of these wastes.

Emphasis added. The Application does not provide an estimate of the amounts of debris and solid waste that will be generated during construction, or its destination of disposal. Nor did Alamo add that information to the hearing record.

The Application acknowledges that project construction will generate 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. Applic., p. 49. These wastes are "solid wastes" as defined by R.C. 3734.01(E) and as contemplated in OAC 4906-4-07(D)(2)(a). The Application also states that one or more old buildings may be demolished. Herling, Tr. I 162:8-10; Applic., p. 78. These wastes are "construction and demolition debris" as defined by R.C. 3714.01 and thus are "debris" as contemplated in OAC 4906-4-07(D)(2)(a).

The Application fails to comply with OAC 4906-4-07(D)(2) in two respects. First, as Mr. Herling admitted, the Application does not estimate the amount of solid waste that the Project will generate. Herling, Tr. I 162:4-7 (admitting that "I don't believe that's estimated in the Application"). Mr. Herling also admitted that the Application does not estimate the amount of demolition waste that the Project will generate. Herling, Tr. I 162:20-24 ("admitting: "No, there's not an estimate in the Application"). Second, although the Application states that the types of solid wastes listed on Page 49 of the Application will be dumped at a municipal landfill, the Application does not explain what will be done with the demolition waste from the old building(s). Herling, Tr. I 162:14-19; see Page 78 of the Application. The Board's Opinion (at Page 97) ignores both of these deficiencies in the Application, and disregards the fact that the required information was not even provided in the hearings.

P. With Respect To Roads And Bridges, The Evidentiary Record Does Not Provide The Information Required by OAC 4906-4-06(F)(3) For Improving Or Repairing Public Roads and Bridges To Address Damage By Alamo's Construction Traffic, (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to road and bridge impacts, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

OAC 4906-4-06(F)(3) provides:

> (3) The applicant shall evaluate and describe the anticipated impact to roads and bridges associated with construction vehicles and equipment delivery. Describe measures that will be taken to improve inadequate roads and repair roads and bridges to at least the condition present prior to the project.

Emphasis added. Contrary to this rule, the record does not describe measures that will be taken to improve inadequate roads and repair roads and bridges to at least the condition present prior to the project.

The Application acknowledges that Alamo's construction traffic may damage the public roads and bridges. The Application states that the volume and/or weight of construction traffic may accelerate pavement deterioration or stress on drainage structures. Applic., Exh. D, p. 10.

The testimony of Alamo's transportation consultant, Mark Bonifas, cautioned that construction traffic should avoid Antioch Road between U.S. Route 127 and just west of Camden Road due to steep road grades and bridges in poor condition. Testimony of Mark Bonifas ("Bonifas Test."), p. 3, Answer 7. One of these bridges is leaning and has a cracked retaining wall, indicating it needs repair. Bonifas, Tr. I 214:19-24. The edge of the road also suffers from "severe erosion." Bonifas, Tr. I 214:22-24. Nevertheless, the Application and Stipulation do not prohibit the use of this road by Alamo's construction traffic. Bonifas, Tr. I 213:9-12.

Mr. Bonifas cautioned in his testimony that three roads besides Antioch Road should not be used for construction traffic due to their poor condition, because they are single lane roads, and because they have some culverts at a shallow depth. Bonifas, Tr. I 214:25 to 215:19; Applic., Exh. D, p. 12. If these roads are used for construction traffic, they would need repairs or upgrades before use. Bonifas, Tr. I 215:9-13. The record fails to state whether or not Alamo will use these vulnerable roads and bridges for construction traffic, but leaves these questions for later determination. The record also lacks information about how road damage from project construction will be addressed.

A record without this information does not satisfy OAC 4906-4-06(F)(3). The Amended Stipulation recites that Alamo and local officials have drafted a Road Use and Maintenance

Agreement, but the agreement was not made binding on Alamo by stipulation. The rule requires the applicant to "[d]escribe measures that will be taken to improve inadequate roads and repair roads and bridges to at least the condition present prior to the project." OPSB cannot issue a certificate in response to a record that lacks this information, nor can it determine that the Project represents the minimum adverse environmental impact with respect to these issues.

Q. With Respect To Traffic Impacts, (1) The Evidentiary Record Contains Inadequate Detail To Explain How Its Construction Traffic Will Avoid Interference With Local Farming Operations, School Buses, And Other Public Road Traffic, (2) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (3) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to traffic impacts, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

OAC 4906-4-06(F)(4) provides:

> The applicant shall list all transportation permits required for construction and operation of the project, and describe any necessary coordination with appropriate authorities for temporary or permanent road closures, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility.

Emphasis added. Alamo has failed to comply with this rule.

The anticipated interference by Alamo's construction traffic with farming activities is a major concern for the Concerned Citizens. Alamo seeks to site its solar fields in the midst of a rural farming community. The community's farmers use the public roads near the Project Area to move their machinery to and from their fields. Clippinger Testimony, p. 10, A.20. The farmers' machinery is large, and the rural roads near the Project Area are typically narrow. *Id.*

Some of the farmers' machinery, including the trailers for transporting grain, cannot safely leave the pavement of a road. *Id*. The Concerned Citizens fear that large solar construction equipment, if on the same roads simultaneously, would make the roads unsafe for moving farm machinery. *Id*. This is especially of concern from April to June during spring planting and from September through October during harvest season, when farm equipment is common on the local roads. *Id*.

About 1,190 to 1,260 loads of equipment and construction materials will be brought in during Facility construction. Hearing testimony of Mark Bonifas ("Bonifas, Tr.") 216:24 to 217:3, 218:7-11. Semi-trailers will transport construction equipment such as excavators, bulldozers, and wheel tractor-scrapers to the Facility on local roads. Applic., Exh. D, p. 2. Flatbed or tractor-trailer vehicles will bring in construction components. *Id*.

Alamo realizes that its use of the public roads for construction traffic will be a problem for the local farmers. In that regard, Doug Herling acknowledged that project construction may occur during the farmers' planting and harvest seasons. Herling, Tr. I 156:9-12. He knows that the farmers in the area use the public roads to move their farm equipment during spring planting and fall harvesting and that the equipment moves slowly. Herling, Tr. I 92:3-21. He often sees that the farm equipment extends beyond the centerline. Herling, Tr. I 92:15-21. He knows that some farm machinery cannot be taken off the road to let another vehicle pass. Herling, Tr. I 93:13-18. Mark Bonifas advised that grain delivery wagons should not be driven off the road where the shoulder is lower than the road. Bonifas, Tr. I 227:7-12. Mr. Herling also realizes that, in most areas near the Project Area, a delivery truck cannot leave the road to let another vehicle pass by. Herling, Tr. I 94:3-7. If an Alamo delivery truck meets a farm machine going the opposite direction, and neither of them can leave the roadway, one of them may have to back

up to the nearest turnoff. Herling, Tr. I 94:14-24. For this reason, oversized solar construction equipment should not be allowed on the roads during planting and harvest seasons when the farmers cannot afford delays in these activities occasioned by road blockage.

A road needs to be 22 feet wide to accommodate normal two-way traffic. Bonifas, Tr. I 219:5-8. In recognition of this fact, Alamo will construct the access roads inside the Project Area to be 25 feet wide during construction to allow for two-way traffic for deliveries and personnel movement. Herling, Tr. I 134:15 to 135:16. Some farming equipment can occupy 1 ½ lanes of a public road. Bonifas, Tr. I 221:7-11. An oversized delivery load for Alamo would occupy both lanes. Bonifas, Tr. I 220:12-17.

None of the eight public roads to be used for the project's deliveries are 22 feet wide. Bonifas, Tr. I 219:16-20. One road is only 11 feet wide (Bonifas, Tr. I 219:21-23), with the rest of them ranging between 13 and 18 feet (Applic., Exh. D, p. 3, Table 1).

The Application observes that some loads will be oversized, and Alamo admitted this fact during the hearing. Applic., Exh. D, pp. 8, 12; Herling, Tr. I 90:17 to 91:3. Some loads will be oversized and/or overweight. Applic., Exh. D, p. 12. Oversized loads typically need an escort vehicle and a flagger to restrict the road to one-way traffic. Bonifas, Tr. I 224:20 To 225:4. Alamo's deliveries of transformer components and other substation parts will require wide-load designations from ODOT. Herling, Tr. I 90:17 to 91:3.

While the transportation problem has been defined, the record does not explain how the problem will be addressed. The Application and Stipulation do not explain how Alamo will protect the farmers' access to the public roads during planting and harvesting seasons. Herling, Tr. I 156:13-18. Alamo has not even done an assessment to determine whether farm machinery and Alamo's trucks can occupy the roads simultaneously. Herling, Tr. I 93:4-12.

Alamo states that road blockage should not be a problem, since the farmers have not had an issue with farm equipment "going against each other." The Staff goes so far as to inaccurately represent (at 10) that there is no evidence that traffic impacts "would be any greater than that caused by current farming operations." However, Alamo intends to send about 1,190 to 1,260 loads of equipment and construction materials onto these narrow roads. Bonifas, Tr. I 216:24 to 217:3, 218:7-11. Since the record contains no traffic plan to figure out how these loads can be accommodated without hindering the farmers' planting and harvesting activities, the Board has no basis to find that that the Project represents the minimum adverse environmental impact on the public's road usage. Mr. Bonifas' statement that construction contractors are usually courteous to local landowners and the public is hardly adequate to conclude that no problems will occur.

Thus, the record does not contain the information required by OAC 4906-4-06(F)(4), which mandates the applicant to "describe any necessary coordination with appropriate authorities for temporary or permanent road closures, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility." Instead, proposed Stipulation Condition 24 allows Alamo to study these issues later and report back to the Staff in the form of a Transportation Plan and Traffic Management Plan. That plan would determine whether farm machinery and Alamo's trucks can occupy the roads simultaneously. Herling, Tr. I 93:4-12. Mr. Herling stated that such a plan typically explains how the farmers' access to the public roads during planting and harvesting seasons would be protected. Herling, Tr. I 156:13-21. The plan also would figure out how accommodate school buses. Bonifas, Tr. I 222:15 to 223:5.

A good example of this deficiency in the record is demonstrated by Mark Bonifas' testimony. That testimony explains that a transportation management plan would typically provide for escort vehicles and flaggers to organize the traffic. The problem is that this plan does not yet exist, so there is no commitment to use any of these measures. Instead, Condition 25 requires a transportation plan to be submitted to the Staff after certification, and Alamo is not even required to obtain Staff approval for the plan.

However, the Transportation Plan and Traffic Management Plan has not yet been prepared. Herling, Tr. I 94:25 to 95:6, 154:10-14; Bonifas, Tr. I 223:6-8. To prepare it, Alamo needs to have a road use agreement with the county and to know where it will access the Project Area from the public roads. Herling, Tr. I 154:15-22. The Amended Stipulation fails to bind Alamo to a plan contained in the record.

R. The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact With Respect To Its Destruction Of Prime Farm Land, And The Board Erred In Finding That The Project Serves The Public Interest, Convenience, And Necessity Despite Its Destruction Of Farm Land.

With respect to the Project's impacts on agricultural land, the Board erred by finding that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3), and by finding that the Project serves the public interest, convenience, and necessity under R.C. 4906.10(A)(6).

Alamo argued that the Project will have a minimal impact on the viability of the 504.6 acres of agricultural land in the Project Area that are in an agricultural district established under R.C. Chapter 929. The owners of this land have committed to preserving its agricultural uses in exchange for tax breaks. Bellamy, Tr. III 520:4-16. The owners of the 504.6 acres are reneging on that pledge.

Alamo wants to convert this large stretch of farmland into an industrial facility. Destroying the capacity of 504.6 acres for agricultural uses for four decades is hardly a minimal impact. The Board recognizes (at Page 113) the loss of this agricultural land, but should not have excused this impact is minimal just because there is a chance that it might return to agriculture in 40 years.

Alamo also has asserted that the Project will advance the goals of Preble County's 2011 Comprehensive Economic Development Strategy and Land Use Plan. However, the goal of this plan is to preserve agriculture, not destroy it. Removing more than 900 acres of prime farmland from food production for 40 years hardly serves that purpose.

S. With Respect To Setbacks, (1) The Board Lacks the Necessary Information On The Nature Of The Probable Environmental Impact, And (2) The Board Has No Basis To Find That The Project Represents The Minimum Adverse Environmental Impact.

With respect to setbacks, the Board erred by finding that the evidentiary record contains the information required by the Board's rules, by failing to determine the nature of the Project's environmental impact under R.C. 4906.10(A)(2), and by opining that the Project represents the minimum adverse environmental impact under R.C. 4906.10(A)(3).

Ordinarily, local zoning would prevent a person from building an industrial facility in a residential or agricultural area in order to preserve the residents' comfort in living and farming there. R.C. 4906.13(B), with respect to certificated utilities, preempts local zoning meant to protect the populace from the destruction of their communities, but R.C. 4906.10 entrusts the OPSB with the authority and mandate to require regulated utilities to responsibly site their facilities. To implement this mandate, the Board should not accept the ridiculously short setbacks between Alamo's industrial facility and its neighbors' land and homes requested by the Application and Condition 3.

The most egregious of the setbacks in Condition 3 is the 25-foot setback between the Facility's seven-foot chain-link and barbed wire fences and nonparticipants' yards and land, which is approximately equivalent to the standard length of a homeowner's garage. Alamo provides no evidence that this 25-foot setback is adequate or responsible, and common sense knows better. The fact that the Application proposed a 10-foot setback is little comfort when a 25-foot setback is a mere 15 feet wider. Siting such an obtrusive structure, with a sea of solar panels behind it, up against a neighbor's yard and fields is the height of greed, and the Board should not allow it. Little better is the 150-foot setback between the 15-foot tall solar panels and neighboring homes, which is equivalent to half the length of a football field. Alamo has no need to place its solar project so close to neighboring properties.

As explained above, Alamo's miserly plans for vegetative screening between its industrial facility and neighbors' homes, unless corrected by the Board, will expose the neighbors to unwanted and unpleasant views from their yards and houses. This will especially harm the seventeen Concerned Citizens who are located adjacent to the proposed Alamo Project Area, twelve of who would be bordered on two or three sides by Alamo's solar panels. Clippinger Testimony, p. 4, A.11, p. 3, A.10, and Exh. A (map of their locations); Clippinger, Tr. III 493:6-8. Nevertheless, Alamo insists that it will use deciduous plants and that there be gaps between them even when in summer when they have leaves. Alamo makes no commitment on what it will do after five years of facility operation to prevent the gaps from widening as plants die due to drought or other causes. The reason that Alamo wishes not to provide complete vegetative screening is obvious, and it has nothing to do with the nonsensical assertion that partial screening is more attractive and better blends into the community. Complete screening is not incompatible with the community's setting; most any woods in the area provides complete

screening for what is behind it. Alamo opposes complete screening simply because a short setback does not provide enough room to plant enough plants for complete screening.

Substantively, two of the three expansions of setback distances proposed in the Amended Stipulation are negligible or unknown. Alamo pretends that its expansion of the setback between solar fences and non-participants' yards/land is a big deal, but expanding a setback from miniscule 10 feet (~ 3 yards) to a mere 25 feet (~8 yards) makes little difference on the claustrophobic effect of planting tall, unsightly fences and solar panels right next to neighbors' properties. Alamo states that this setback expansion will provide room for "greater screening" with vegetation. But an eight-yard sliver of land – about the length of a homeowner's garage – provides little room for trees and bushes. Alamo's stingy expansion simply highlights the woeful nature of the three-yard setback that it originally portrayed as suitable in the Application before the first evidentiary hearing exposed its inadequacy.

Alamo also contends that the 25-foot setback separates solar fences and the road rights-of-way, and this will allow motorists at intersections to see crossing traffic. But Alamo has not quantified the width of the rights-of-way so that the Board will know the distance between the fences and the roads themselves. Alamo has the burden to prove that the fences will not obstruct motorists' views, but it has made no effort to make such a demonstration.

Adding a 500-foot setback between central inverters and non-participants' residences is worthwhile, but it still falls short of protecting neighbors from inverter noise, for several reasons. First, the noise from central inverters can reach 38 dBA at 500 feet. Second, the 500-foot setback does not apply to non-participants' yards or land. And third, the setback does not apply to string inverters, even if grouped in noisy clusters. This omission allows string inverters to be

sited directly behind facility fences that can be as close as 25 feet from yards and 150 feet from residences.

Alamo has no good reason to request such short setbacks. Alamo has about 1002.5 acres available for Facility construction and/or operation and needs up to 919 acres. Application, p. 6. Alamo can accommodate longer, more reasonable setbacks by using the spare land it has available or reduce its panel acreage. Either way, building an industrial facility along the perimeters of other people's land in an agriculturally zoned area is inexcusable and the Board should not approve such behavior.

As further purported justification for its decision on setbacks, the Board's Opinion (at Pages 98-99) recounts a statement by some of the justices of the Ohio Supreme Court in *In re Application of Champaign Wind, L.L.C.* that the Court will not substitute its judgment for the Board's setbacks on evidentiary matters. That statement does not mean that evidentiary decisions are unreviewable. It just means that the Court will use a reasonableness standard to review them. And the Board's setbacks in this case are unreasonable.

T. Summary

The Amended Stipulation, if accepted, would grant a certificate for the Facility based on a record that violates the Board's rules in a multitude of ways as described herein. With the lack of information in the evidentiary record, OPSB also cannot find that the Project complies with R.C. 4906.10(A)(2) and (3). In addition, the facts and problems described in Subsections A. through S. above also show that the Project does not serve the public interest, convenience, and necessity under R.C. 4906.10(A)(6). As constituted, the record does not provide the Board with a basis for issuing a certificate or for identifying and designing mitigation protections for the public. The Board should reconsider its Opinion and deny Alamo's Application for a certificate.

IV. The Alamo Solar Project Does Not Serve the Public Interest, Convenience, And Necessity Under R.C. 4906.10(A)(6).

Alamo does its best to "green-wash" this project, portraying it as benign and environmentally beneficial. The record in this case shows a very different project -- a major industrial plant spread over a rural residential landscape on a vast scale that will harm the community as described in Section III above. Alamo has the burden of proof, but failed, to demonstrate that its Project will serve the public interest, convenience, and necessity as required by R.C. 4906.10(A)(6). While R.C. 4906.10(A) may require the Board to base its certification decision "upon the record" that includes evidence introduced at the hearing, Alamo did not include the required information in the record.

The Citizens do not have the burden to produce evidence that the Project will harm the public, although they have done so in many instances, including the following.

1. The solar equipment will spoil the neighborhood's scenic views.
2. The unsightly solar equipment will be located in close proximity to neighboring residences and land, and Alamo has not provided meaningful assurances that these views will be adequately mitigated through effective screening designs acceptable to neighbors who will be exposed to these views.
3. The Project lighting may be annoying and intrusive to neighbors, and the Alamo has failed to demonstrate how it will prevent this from occurring.
4. The inverters may produce annoying and intrusive noise that reaches neighboring homes and land.
5. Post installation will produce noise that is loud, bothersome, and long lasting.

6. The Project's provisions for preventing and replacing damaged field tiles are inadequate and could result in the flooding of neighboring land and damaged crops.
7. The unguarded recyclable materials in the solar equipment will attract criminals to the area to plunder them, and these criminals may also harm the neighbors while in the area.
8. Solar panels damaged by vandals or disasters may leak contaminants into the groundwater, thus polluting the neighbors' wells.
9. The Project may be a drain on emergency services that it may consume, thus depriving the residents of adequate emergency services.
10. The solar equipment may obstruct motorists' views of cross-roads at intersections.
11. The Project does not provide adequate controls for noxious and invasive weeds.
12. The Project will harm the area wildlife.
13. The Project will force deer, coyotes and other wildlife to congregate in the neighbors' fields and yards, and damage the neighbors' crops and livestock.
14. The Project may increase stormwater runoff and flood the neighbors' fields and homes.
15. Erosion from Project construction may pollute the streams.
16. The record lacks sufficient detail about solid waste and debris generation and disposal to demonstrate that the waste and debris will be properly handled.
17. Project construction will clog the neighborhood roads and delay the movement of farm equipment.

Section III above describes these and other harms and potential harms in more detail. Section III is incorporated in this Section IV by reference as a description of the reasons why the Facility does not satisfy R.C. 4906.10(A)(6).

V. The Board Cannot Delegate Its Authority And Responsibility For Certification Decisions To The Staff Or Other Governmental Entities.

A decision of the Supreme Court of Ohio allowed the Board, in that case, to issue a certificate requiring the applicant to make six submittals for Staff approval after issuance of the certificate.[8] *In re Application of Buckeye Wind, L.L.C.,* 2012-Ohio-878, ¶¶ 28-30, 131 Ohio St.3d 449, 456–57. The lead opinion in that case opined that it may not be practical to hold a hearing on every infinite detail of construction, such as "whether white or gray screws are used in the control room." *Id*. at ¶ 30. This opinion stated that, "[i]n this case, we conclude that the board reasonably drew the line regarding the issuance of the certificate and the imposition of its conditions." *Id*.

Three justices joined in that portion of the decision, with another three justices dissenting. A fourth justice concurred only in the judgment. The dissent disagreed with the rationale and result of the lead opinion, on several grounds.

First, the dissent observed that the post-certificate conditions denied the appealing citizens of their only opportunity to be heard, and this violated the law:

> The law requires otherwise. The legislature has required the board to settle issues like this up front on a public record, and it specifically guarantees affected citizens the right to participate in the review process and to have their voices heard. *See* R.C. 4906.07 (requiring that the board hold public hearings), 4906.08(A)(3) (neighboring citizens are entitled both to party status and to call and examine witnesses), 4906.09 (requiring the board to keep a record of its proceedings), 4906.10(A) (requiring the board to make all substantive determinations before authorizing construction), and 4906.11 (requiring the board to issue a written opinion stating the reasons for its decisions). Issues are

[8] The certificate in that case required more than six post-certificate submittals, but only six were brought to the Ohio Supreme Court's attention, so the Court's lead opinion applied only to those six submittals.

> not to be settled *after* construction is approved, much less by unaccountable staff members without public scrutiny or judicial review. Yet that is precisely what the board, and now the lead opinion, has allowed.

Id. at ¶ 53.

Second, the dissent found that the lead opinion did not offer any workable response to the denial of the citizens' right to a public hearing. The dissent found this situation objectionable, for several reasons. It noted that the Staff's post-certificate decisions are made in secret without input from the public and without subsequent review by the Board or the Ohio Supreme Court. *Id*. at ¶¶ 55-56. The affected citizens have no process or opportunity to provide input into the Staff's post-certificate approvals. *Id*. at ¶¶ 57-63. Even if they did have a mechanism to challenge the Staff's decisions, such a remedy would not justify disregarding their right to a hearing. *Id*. at ¶ 61. R.C. 4906.10(A) prohibits the Board from issuing a certificate unless the Board makes the required findings and determinations to resolve the issues. *Id*. at ¶ 64. The Board cannot delegate these issues to its Staff. *Id*. at ¶¶ 64-65.

Third, the dissent noted that the lead decision rendered ineffectual the laws designed to protect the interests of citizens living near proposed utility projects:

> The outcome of this decision is unfortunate for anyone living near the site of a proposed high-voltage transmission line, electric substation, high-pressure gas pipeline, or generation plant. If the board runs into an issue that for whatever reason it does not want to deal with—or if it simply prefers to resolve an issue without the discomfort of public participation and judicial review—it now has a broad off-ramp. Approve the project now; work out the details with the company later. The public retains a formal right to participate, but it is up to the board whether that right amounts to anything more than a formality.
>
> This is not alarmist but precisely what happened in this case. If, as it did in this case, the power siting board can delegate the very *siting* of facilities—its core duty, the duty from which the power siting board derives its name—it can delegate anything and everything. The lead opinion identifies no enforceable limits on the board's power to delegate but apparently trusts that the board will exercise its new discretion wisely. One can hope that the lead opinion's trust proves well founded, but in my view, the public's business should not be left to

> the unreviewable discretion of appointed staff members who are not accountable to the public. The board's decisions should have to see and bear the light of day.

Id. at ¶¶ 66-67 (emphasis in original). The Concerned Citizens incorporate by reference the statements of the dissent in *Buckeye Wind*.

In Alamo's case, the parties signing the Amended Stipulation were trying to fill the large and numerous information gaps in the record with a multitude of post-certificate plans and studies to be evaluated only by the Staff without public involvement and without the Board members' participation. Alamo also submitted some plans and studies at the supplemental hearing without including them in the Application. This is not the process envisioned by the General Assembly when it enacted R.C. Chapter 4906.

The Amended Stipulation would allow Alamo to submit 12 major studies to provide for mitigation of the Facility's impacts on the public. Rather than merely identifying the color of the screws in the control room as allowed in *Buckeye Wind*, these plans provide for design and operational procedures that go to the core of how the Facility will be constructed and operated. This goes well beyond the activities that the lead opinion in *Buckeye Wind* let pass.

Contrary to the Board's Opinion (at Page 139, ¶ 364-365), the Board is not issuing a certificate that merely calls upon the Staff to monitor compliance with post-certificate conditions. The certificate entrusts the Staff with the post-certification responsibility to obtain and evaluate plans and other information that the Board's rules require the Board to consider in determining whether the Project complies with the criteria in R.C. 4906.10(A) and then allows the Staff to make those determinations.

The preliminary site plan attached to Mr. Herling's second supplemental testimony reveals that Alamo could have provided substantially more detail in its Application than it did.

The Concerned Citizens do not expect that the record to include every minute detail of construction. However, the Concerned Citizens are entitled to enough detail in the record to inform them of the Project's prospective harms to them and the environment and to commit to the measures that will prevent and mitigate those harms. Alamo's record falls well short of those objectives, and the Amended Stipulation does nothing to correct this problem.

The scarcity of the Amended Application's analysis of the hazards and damage threatened by the Alamo solar project has deprived the Concerned Citizens thus far of their right to comment on and test the project's impacts and the proposed certificate conditions. For the same reason, the Staff and the Board have not had the information necessary to make informed decisions about issuing a certificate for this project. The Amended Stipulation does not seek to correct this situation. The Board should not issue a certificate based on this inadequate record, but instead should reopen the Application with instructions to supply the missing information to allow the Board to make an informed decision.

Any attempt to introduce new details for facility design by stipulation, instead of including them in the Application, deprives intervenors of their right to test these details through discovery and other steps of an orderly adjudicatory proceeding, and deprives other members of the public of their right to comment on these details in the public hearing. This true for both the Amended Stipulation and the original Stipulation. OAC 4906-3-09 requires an applicant to publish notice that the completed application is ready for the public's review, so the public can comment on it. The original Stipulation and Amended Stipulation were filed after the public comment session of the hearing was held. The public's rights, including the rights of the Citizens who are not individual intervenors, were violated by this process.

The required studies should be added to the Application before the Board decides whether to issue a certificate, not afterwards. Otherwise, the Board will abdicate its duty to make the required findings and determinations to resolve the issues as required by R.C. 4906.10(A), and unlawfully delegate its responsibility to the Staff. This practice would deprive the Concerned Citizens of their statutory right to call and examine witnesses at the hearing under R.C. 4906.08 and otherwise participate in the adjudicatory process as noted in Paragraph 53 of the dissent in *Buckeye Wind*. And it would deprive the Concerned Citizens of their right to procedural due process under the Fourteenth Amendment of the Ohio State Constitution and Section 16, Article I of the Ohio Constitution, which require that administrative proceedings comport with due process. *Mathews v. Eldridge* (1976), 424 U.S. 319; *LTV Steel Co. v. Indus. Comm'n* (2000), 140 Ohio App.3d 680; *Egbert v. Ohio Dep't of Agriculture* (2008), 2008-Ohio-5309. At its core, "due process insists upon fundamental fairness, and the requirement to conduct a hearing implies that a fair hearing must occur." *Lassiter v. Dep't of Social Serv.* (1981), 452 U.S. 18, 24; *Clayman v. State Med. Bd.* (1999), 133 Ohio App.3d 122, 127, *citing State ex rel. Ormet v. Ind. Comm'n* (1990), 54 Ohio St.3d 102, 104. *Also see Seitz v. All Creatures Animal Hosp.* (Nov. 15, 1985), Ashtabula App. No. 1192, 1985 WL 3679.

The Board should reconsider the certificate and deny it due to the applicant's failure to follow the procedures required by statute, rule, and constitution.

VI. The Amended Stipulation Violates Important Regulatory Principles And Is Contrary To The Public Interest, Because The Evidentiary Record Lacks The Information Required By The Board's Rules, The Stipulation Delegates The Board's Authority And Responsibility For Certification Decisions To The Staff, The Alamo Solar Project Does Not Constitute The Minimum Environmental Impact, And The Project Does Not Serve The Public Interest, Convenience, And Necessity.

Alamo must show that the Amended Stipulation does not violate important regulatory principles and practices and is not contrary to the public interest. Alamo cannot sustain this

burden, due to the incomplete Application and the violations of the laws and rules as described in Sections II and III above and the Stipulation's unlawful delegation of the Board's authority and duties in certification to the Staff. In addition, Alamo cannot sustain this burden, because the Project will not represent the minimum environmental impact as required by R.C. 4906.10(A)(3) and will not serve the public interest, convenience, and necessity as required by R.C. 4906.10(A)(6). Alamo has the burden to prove the project's compliance with these criteria, but the Application and evidentiary record do not contain that evidence. For these reasons, the Amended Stipulation violates important regulatory principles and practices and is contrary to the public interest. Accordingly, OPSB should deny Alamo's request for a certificate.

The Amended Stipulation would grant a certificate for the Project without providing the information required by the Board's rules in a multitude of ways as described herein. The Board cannot circumvent its own rules by approving a deficient application. In particular, since the Application is incomplete, the Board should deny Alamo's application for a certificate.

The Amended Stipulation would provide for an unlawful and unconstitutional delegation of power to the Staff for the reasons explained above. Most of the Amended Stipulation's supposed accomplishments touted by Alamo and the Staff are future submittals of studies that should have been included in the record or in the Amended Stipulation, but which now are proposed to be delivered after certification by Alamo and approved without public influence by the Staff. The Amended Stipulation as accepted by the Board's Opinion mostly just postpones, until after certification, Alamo's evaluations of the Facility's potential threats to the public and the Alamo's identification of mitigation measures work that should have been included in the record.

The Amended Stipulation also is carelessly worded to provide loopholes by which Alamo can avoid its responsibilities. Those loopholes are comprehensively identified above.

The scarcity of Alamo's analysis of the hazards and damage threatened by the Project has deprived the Concerned Citizens of their right to comment on and test the Project's impacts and the proposed certificate conditions. For the same reason, the Staff and the Board have not had the information necessary to make informed decisions about issuing a certificate for this Project. The Amended Stipulation did not correct this situation. The Board should not issue a certificate based on this inadequate record, but instead should reopen the record with instructions to supply the missing information to allow the Board to make an informed decision.

Although Alamo and Staff will tell the Board that it should defer to the Amended Stipulation and approve the Project with the Amended Stipulation's conditions, a stipulation signed by allied parties over the objections of other parties is not entitled to deference. If it were, any two or more aligned parties (*e.g.*, two Concerned Citizen intervenors) could sign a stipulation over other parties' objection and obtain the Board's blessing for it. Therefore, the Amended Stipulation is not entitled to deference or substantial weight. A stipulation of parties is merely a recommendation and is in no sense legally binding upon the Board. *Duff v. Pub. Utilities Comm'n*, 56 Ohio St. 2d 367, 379 (1978) (applying this standard to the PUCO). The Board may take the stipulation into consideration, but must determine what is just and reasonable from the evidence presented at the hearing. *Id.* Moreover, the parties signing the Amended Stipulation do not have to live next door to the Project's hazards, so they do not represent the Concerned Citizens' interests and that fact is reflected in the Amended Stipulation's failure to address these hazards. The Board has the statutory responsibility to make sure Alamo has provided a complete and honest assessment of the Project's hazards and has designed the Project

to reduce those hazards to a minimum. Adopting the Amended Stipulation does not fulfill this responsibility.

VII. Conclusion

For the reasons expressed above, the Board should rehear this case, reconsider its decision, and deny Alamo's application for a certificate.

Respectfully submitted,

/s/ Jack A. Van Kley
Jack A. Van Kley (0016961)
Van Kley & Walker, LLC
132 Northwoods Blvd., Suite C-1
Columbus, Ohio 43235
(614) 431-8900 (telephone)
(614) 431-8905 (facsimile)
Email: jvankley@vankleywalker.com

CERTIFICATE OF SERVICE

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Summary: App for Rehearing electronically filed by Mr. Jack A Van Kley on behalf of Concerned Citizens of Preble County, LLC