

BEFORE THE OHIO POWER SITING BOARD

**In the Matter of the Application of
Angelina Solar I, LLC
for a Certificate of Environmental
Compatibility and Public Need**

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Case No. 18-1579-EL-BGN

**POST-HEARING REPLY BRIEF OF ANGELINA SOLAR I, LLC TO POST-HEARING
BRIEF OF CONCERNED CITIZENS OF PREBLE COUNTY, LLC AND ITS
INTERVENING MEMBERS**

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I. INTRODUCTION

The Board should grant a certificate to the Angelina Solar I, LLC (“Angelina”) Solar Project (the “Project”) because Angelina has provided the Board with sufficient evidence to find and determine that the Project meets every applicable requirement of R.C. 4906.10(A). Nothing in the Post-Hearing Brief (“CCPC Brief”) of Concerned Citizens of Preble County, LLC and its intervening members (collectively, “CCPC”), compels a different conclusion.

Rather than evaluate whether the statutory criteria for a certificate issuance have been satisfied, CCPC advances its views on the contents of certificate applications, including the submittal of various studies and plans that CCPC believes should have been included in more detail in Angelina’s Application. That viewpoint is at odds with the Board’s rules and the Board’s prior decisions, as well as decisions from the Supreme Court of Ohio on that exact point. CCPC’s viewpoint also is at odds with the fact that the Project (as is every project the Board reviews) is a proposed project and final engineering design is not yet complete. (Angelina Ex. 1 at 16; TR at 104-105).

CCPC’s viewpoint is also nonsensical. CCPC would have the Board only approve projects for which all final engineering design and design studies are complete, every planting in

vegetative screening identified, scripts for emergency service training meetings drafted, and every inch of drain tile located, among other highly detailed and specific construction, design, and engineering details.

CCPC also implies that the Board should not approve any project that would result in an impact or change to the surroundings, no matter how minute. However, there is no obligation, nor is it possible, for a project to have zero impact. As stated by Staff in its Post-Hearing Brief, “Staff conducted its investigation and proposed comprehensive recommendations for the Board’s consideration in order to address and reduce Project impacts to reasonably acceptable levels.” (Staff Post-Hearing Brief at 4).

Like its viewpoint, CCPC’s arguments in its Brief are flawed. The CCPC Brief advances a parade of alleged deficiencies with the Application (Angelina Ex. 1) in particular and the Board’s regulatory requirements for the same, and with the Project in general, but does not address the statutory criteria governing the Board’s decision whether to grant a certificate. CCPC makes only a passing attempt in its 75-page brief at a conclusory argument that the Project does not meet the requirements of R.C. 4906.10(A)(3) and R.C. 4906.10(A)(6). (CCPC Brief at 72-73). Instead, CCPC devotes the vast majority of its brief to arguing about alleged deficiencies in Angelina’s Application. In so doing, CCPC misinterprets the law, and ignores the February 1, 2019 determination that the Application “has been found to comply with Chapters 4906-01, *et seq.*, of the Ohio Administrative Code (OAC).”¹

Notwithstanding the fact that the Application does comply with Ohio Adm.Code Chapter 4906-4, the Board’s rules on the contents of an application have no relevance to the Board’s

¹ February 1, 2019 Letter of Compliance to Angelina, available here: <https://dis.puc.state.oh.us/TiffToPDF/A1001001A19B01B35916I01223.pdf>

decision to issue a certificate. The Board is required to render a decision to grant a certificate “**upon the record**,” not solely upon an application. R.C. 4906.10(A) (emphasis added).

CCPC not only fails to address the Board’s statutory criteria, but also does not address the Board’s three-prong test for stipulations in its brief, beyond a mere recitation of the alleged deficiencies with the Joint Stipulation, echoing its claims about the alleged failure of the Application to meet regulatory requirements. (CCPC Brief at 69-71). Instead, CCPC claims that because the recommended conditions allow for the submission of some plans following the issuance of the certificate, the Board has unlawfully delegated its authority to Staff. (CCPC Brief at 62-67). The Board and the Supreme Court of Ohio, however, have consistently recognized the Board’s authority to make such delegations.

Though CCPC makes a number of allegations regarding alleged deficiencies in the Application and the Joint Stipulation, those allegations are not borne out by the record in this case, as addressed more fully in Section II.C, below. Angelina’s Application was complete and thorough, and it along with the exhibits and testimony in this proceeding provide sufficient information for the Board to approve the Application under R.C. 4906.10. That evidence includes (but is not limited to) provisions in the Application and Joint Stipulation that address and describe:

- landscaping, lighting, and mitigation of visual impacts;

Described in the Application and the Joint Stipulation. (e.g., Angelina Ex. 1 at Exhibit I at 38-42 and Figure 12; Joint Ex. 1 at 7, Condition 11). Also described in Landscape Architect Matthew Robinson’s Supplemental Direct Testimony. (Angelina Ex. 16 at 2).

(See Attachment A to this brief)

- the complaint resolution process;

Described in the Application and in the Joint Stipulation. (e.g., Angelina Ex. 1 at 33-34; Joint Ex. 1 at 8, Condition 13).

(See Attachment B to this brief)

- vegetation management;

Described in the Application and in the Joint Stipulation. (e.g., Angelina Ex. 1 at 12, 75, Exhibit G at 3-1; Joint Ex. 1 at 9, 10, Condition 18 and Condition 24).

(See Attachment C to this brief)

- road use and maintenance; and

Described in the Joint Stipulation. (e.g., Joint Ex. 1 at 10, Condition 26).

(See Attachment D to this brief)

- decommissioning and decommissioning funding

Described in the Application and in the Joint Stipulation. (e.g., Angelina Ex. 1 at 38-40; Joint Ex. 1 at 11, Condition 29).

(See Attachment E to this brief)

In sum, none of the arguments made by CCPC justifies the denial of a Certificate to Angelina or the modification of any of the conditions of the Joint Stipulation. Given the record in this proceeding, the Joint Stipulation should be approved without modification and a Certificate of Environmental Compatibility and Public Need issued to Angelina for the Project.

II. ARGUMENT

A. The Issue Before the Board is Whether the Record, as a Whole, Provides Sufficient Evidence to Find and Determine Each Applicable Element of R.C. 4906.10

“In granting a certificate for the construction, operation, and maintenance of a major utility facility, the board must determine eight specific points.” *In re Application of Buckeye Wind, L.L.C.*, 131 Ohio St.3d 449, 2012-Ohio-878, at ¶ 27 (citing R.C. 4906.10(A)). Whether,

“the application complied with OAC Chapter 4906-4,” as suggested by CCPC, is **not** one of the eight criteria.

Ignoring the text of R.C. 4906.10(A), CCPC claims that the Board cannot grant a certificate if an application does not include information required by the Board’s application rules. CCPC cites to one case to support its claim, arguing that “[a] government agency cannot grant an approval based on an application that does not contain the information required by law,” citing to *Anderson v. Vandalia*, 159 Ohio App.3d 508 (2nd App. 2005). (CCPC Brief at 4). That case is inapposite.

Specifically, CCPC overstates the holding of *Anderson*, and ignores the clearly distinguishable facts and law of that case. In *Anderson*, the Court was presented with a conditional use application that, per city ordinance, was required to contain certain elements. *Anderson* at ¶¶ 30-33. The Court noted no provision for potential waiver of the application requirements. A separate subsection of the city ordinances laid out general criteria for approval of a conditional use application. *Id.* at ¶ 34. Among these criteria was a requirement that the Board of Zoning Appeals (“BZA”) make a recommendation to City Council “based upon the “application as presented.”” *Id.*

The Court in *Anderson* held that:

“the application for a conditional use permit submitted ... to the BZA did not comply with the Code. We further conclude that the BZA did not comply with the Code, because it made recommendations based upon an incomplete application, and it did not prepare written findings of fact. Therefore, we conclude that the decision to recommend the grant of the conditional use was contrary to the Code, and the decision of the Council to permit the use, which cannot be presumed to have been made independently of, and without regard to, the BZA’s recommendation, is therefore invalid.”

Id. at ¶ 39.

Anderson is distinguishable for three reasons. First, there is no express requirement for the Board to make a decision in this proceeding “based on the application,” either by law or regulation. Second, the Board can waive any requirement of OAC Chapter 4906-4 not required by statute, an ability apparently not allowed by the BZA in *Anderson*. Third, the application content requirements and criteria for the decision in *Anderson* were both parts of the same city ordinance. Here, the criteria for the decision are statutory and the application content requirements cited by CCPC are regulatory.

Decisions from the Supreme Court of Ohio further establish that the Board only considers the R.C. 4906.10 statutory criteria. When evaluating whether a certificate was properly granted to a project, the Supreme Court of Ohio has looked to the statutory factors under R.C. 4906.10(A), rather than compliance with regulation. *See In re Application of Champaign Wind, L.L.C.*, 2016-Ohio-1513, 146 Ohio St. 3d 489, 58 N.E.3d 1142. In *Champaign Wind*, the court conducted a thorough evaluation of the **statutory** criteria of R.C. 4906.10(A) that were at issue. Specifically, the Court acknowledged that setbacks from wind turbines were subject to **regulatory** requirements under then-OAC Chapter 4906-17. *Champaign Wind* at ¶28, FN 1. However, the Court then went on to evaluate the propriety of the setbacks established in the Champaign Wind certificate against the statutory criteria in R.C. 4906.10(A), notwithstanding the existence of the regulatory requirement. *Id.* at ¶33. As even the dissent in *Champaign Wind* acknowledged, “**Chapter 4906 of the Revised Code provides the mandatory criteria for issuance of a certificate.**” *Champaign Wind* at ¶76 (Kennedy Dissent) (emphasis added).

Thus, even in the face of an explicit regulatory requirement, the Court evaluated a Board decision whether to grant a certificate based on compliance with R.C. 4906.10(A).

B. The Application has Already Been Determined to Comply with Regulatory Requirements

Importantly, a determination has already been made that Angelina's Application met the requirements of OAC Chapter 4906-4 and the statutory application content requirements of R.C. 4906.06. OAC 4906-3-06(A) requires that:

“upon receipt of a standard certificate application for [a] major utility facility ... the chairman shall examine the certificate application to determine compliance with Chapters 4906-1 to 4906-7 of the Administrative Code. Within sixty days following receipt, the chairman shall either:

- (1) **Accept the standard certificate application as complete and complying with the content requirements of section 4906.06 of the Revised Code and Chapters 4906-1 to 4906-7 of the Administrative Code, and notify the applicant to serve and file a certificate of service for the accepted, complete application.**
- (2) Reject the standard certificate application as incomplete, setting forth specific grounds on which the rejection is based. The chairman shall mail a copy of the completeness decision to the applicant.”

(Emphasis added).

The Angelina Application was accepted as complete on February 1, 2019. (Footnote 1, *supra*). Angelina then served copies of the Application as required by rule, and filed the required certificate of service. (Angelina Ex. 3). Puzzlingly, CCPC attempts to argue that the February 1, 2019 letter does not mean what it says, and that it “does not indicate that the Application is complete.” (CCPC Brief at 61).

The February 1, 2019 letter, however, reads, in part:

This letter is to inform you that the above referenced application, filed with the Ohio Power Siting Board (Board) on December 03, 2018, has been found to comply with Chapters 4906-01, et seq., of the Ohio Administrative Code (OAC). This means the Board's Staff has received sufficient information to begin its review of this application. During the course of its investigation, the Staff may request additional information to ensure a full and fair assessment of this project.

Pursuant to Board rules, the certified application and supplements must now be filed with the Board in accordance with the provisions of OAC Rules 4906-3-06 and 4906-3-07. In summary form, these rules require:

1. **Serving copies of the certified application upon appropriate government officials and public agencies.** In this regard, please inform these officials in writing that if they wish to intervene in the proceedings they must file a notice of intervention with the Board within thirty days of being served a copy of the application.
2. Filing Proof of Service with the Board.

February 1, 2019 Correspondence to Angelina at 1 (emphasis added).

Thus, the letter notified Angelina that it should serve copies of the **certified application** on government officials and public agencies. Pursuant to Ohio Adm.Code 4906-3-06(A)(1), this notification does not occur until the application is accepted as **complete and complying with the content requirements of section 4906.06 of the Revised Code and Chapters 4906-1 to 4906-7 of the Administrative Code.**

Given that the Application was accepted as complete once already, the Board should disregard CCPC's arguments to the contrary, and instead conclude that sufficient evidence has been provided for the Board to find and determine that all of the requirements of R.C. 4906.10(A) either have been met or are inapplicable. Even if the Board were to revisit the earlier determination (which it should not), it should again find that the Application contains all of the information identified by OAC Chapter 4906-4, for the reasons detailed below.²

C. Angelina has Complied with all Statutory and Regulatory Requirements for the Issuance of a Certificate

Although not relevant at this stage of the proceeding, Angelina's Application met the regulatory requirements of OAC Chapter 4906-4. More importantly, taking the record as a whole, as it should, the Board has sufficient evidence to find and determine that the Project

² With the exception of those regulatory requirements for which Angelina sought and has already been granted a waiver. See Entry, January 17, 2019, at ¶¶ 10, 17.

meets all applicable criteria of R.C. 4906.10(A), including CCPC's areas of concern. The application and record include information establishing that:

- Angelina has identified the maximum extent of the Project. (Angelina Ex. 1 at 15, Figure 2).
- Angelina has identified the potential maximum height of the panels. (Angelina Ex. 1 at 8).
- Angelina has identified the location of the Project substation. (Angelina Ex. 1 at 15).
- Angelina has identified the maximum possible impact from other components of the Project, including access roads, collection lines, laydown areas, substation, posts and pilings, inverter pads, and pyranometers. (Angelina Ex. 1 at Exhibit G at 7-3).
- Local traffic, including agricultural vehicles, will continue to be able to use local roads during construction and operation. (Angelina Ex. 10 at 3-4).
- The area surrounding the Project Area will not see a negative impact from wildlife that has been excluded from the Project Area. (Angelina Ex. 13 at 7).
- Any electromagnetic fields that are generated by the Project will not impact the use of electrical devices. (Angelina Ex. 1 at 66; Angelina Ex. 19 at 2).
- Construction noise from the Project at any given location will be short in duration. (Angelina Ex. 1 at 57).
- Operational noise will be minimal, below the level approved by the Board in other certificate proceedings, and, if necessary, can be successfully mitigated to avoid any impact to area residents. (Angelina Ex. 1 at 58-59).

- Adequate drainage in the Project Area and surrounding properties will be maintained. (Angelina Ex. 8 at 4).
- There is no risk of soil or water contamination from the Project. (Angelina Ex. 6 at 16-17).
- The Project will not represent a burden on emergency services in the area, nor will the Project result in an increase in crime. (TR at 124).
- The Project will be decommissioned at the end of its useful life, and the Project Area may be returned to agricultural use at that time. (Angelina Ex. 6 at 13-14; Angelina Ex. 10 at 2-3).

The record in this proceeding is thorough and fully supports issuance of a Certificate. As discussed below, CCPC's claims to the contrary are unsupported and contrary to the evidence in the record.

1. The Board has Adequate Evidence to Find and Determine that the Project's Impacts on Visual Resources and Motorist Visibility will be Minimal (CCPC Brief Section II.A, Section II.B, and Section II.J)

a. The Project will have a Minimal Impact on Visual Resources and Adequately Incorporates Mitigation Measures

The CCPC Brief claims, without citation, that the Project would "impose a serious blight on the scenic views in Preble County." (CCPC Brief at 6). There is simply no evidence in the record to support this conclusory assertion. In fact, there is no evidence that views of the Project, to the extent they exist, are at all objectionable. At best, CCPC can offer a "concern", with no evidentiary value, that the "panels ... will spoil the visual and aesthetic enjoyment..." (CCPC Ex. 2 at 4). This speculative concern is not evidence, and cannot be relied on by the Board. *See In re Complaint of Buckeye Energy Brokers, Inc.*, Case No. 10-0693-GE-CSS, Entry on

Rehearing, February 23, 2012 at ¶40 (“The Commission must rely squarely on the evidence presented in this case and not on speculation or [conjecture].”)

As a part of its evaluation of the Project, Angelina commissioned a visual resources assessment (“VRA”). (Angelina Ex. 12 at 2). The VRA determined, through a viewshed analysis, that the Project will potentially be visible from 82.26% of the area within a half mile of the Project. (Angelina Ex. 1 at Exhibit I at 23). The viewshed analysis is conservatively based on a panel height of 15 feet and provides a “preliminary idea of where the Project potentially may be visible from.” (TR at 181, 182). In the context of the viewshed analysis, potentially visible does not mean the entire project is visible from a particular area, but could mean that “a portion of the Project could potentially be visible.” (TR at 185). This limited visibility (before any mitigation has been put into place) does not constitute a “scenic blight.”

CCPC attempts to undermine the validity of Angelina’s viewshed analysis by pointing to the fact that the visual simulations show a panel height of 8 feet. In so doing, CCPC makes trumped-up claims regarding the “seriousness of its deception” and alleged “admissions” made by Angelina and its visual expert, Matthew Robinson. (CCPC Brief at 8-9). Importantly, as Mr. Robinson testified (and the CCPC Brief largely ignores), if the visual simulations depicted a panel height of 15 feet, his conclusions in the VRA **would not change**. (TR at 205). Mr. Robinson concluded that “[w]here visible, the Project will introduce a new contrasting use to the landscape. However, as noted in my testimony above, the existing perimeter vegetation along with the Applicant’s use of setbacks and plantings will soften the visual effect of the Project.” (Angelina Ex. 12 at 7-8).

CCPC’s argument that the Application is deficient because by using 8-foot tall solar panels in the visual simulations, it does not accurately portray the Project, is incorrect. (CCPC

Brief at 9, citing Ohio Adm.Code 4906-4-08(D)(4)(e)). The Application clearly states that the high end of the panels, regardless of the racking technology used, will be “8 to 14 feet above ground surface.” (Angelina Ex. 1 at 8). In addition, an 8-foot panel height, at the time the simulations were conducted, was “the most up-to-date technology [and] an 8-foot single-axis tracker panel would be what probably would be used [for the Project],” as testified by Mr. Robinson. (TR at 182). The visual simulations in the VRA thus portray the Project as described in the Application accurately.

Additionally, CCPC claims that the Application is deficient because it did not specifically describe the visual mitigation to be implemented. (CCPC Brief at 9). CCPC also claims, without citation to the record, that it is “critical to the Citizens” that “Angelina [] completely screen the neighbors’ homes from the intrusive views of solar panels and fences.” (CCPC Brief at 10). This unsupported claim is belied by Mr. Robinson’s experienced testimony:

“The use of an opaque “green wall” approach is generally not desirable or effective, **because it tends to contrast with the existing visual character of the surrounding area and actually draws viewer attention because it looks out of place.** Instead, the goal is to soften the appearance of the project so that it blends more effectively into the background.”

(Angelina Ex. 16 at 2) (emphasis added).

As Mr. Robinson further testified at hearing, the goal is to **soften** the appearance of the Project. One hundred percent screening is not the goal because it “often looks awkward” and “does not fit the character of the landscape” (TR at 199-200).

The Application and associated exhibits provide sufficient detail on the mitigation to be performed both to meet regulatory requirements and to provide sufficient evidence for the Board to find and determine that there will be minimal visual impact. (Angelina Ex. 1 at Exhibit I at 37-42). Specific to mitigation through screening, the Application includes the following description of the screening to be implemented:

- “A landscape plan showing potential mitigation areas and design will be part of the final Project.
- The Applicant is considering including as a component of the landscape plan, pollinator-friendly grasses and wildflowers along selected roadsides and other fence lines to soften the appearance of the Project and better integrate the Project into the landscape (see example simulations included in Figure 13). The Applicant anticipates using a mix of native pollinator wildflowers and grasses that will be selected based on their aesthetic and environmental properties, and their ability to grow in the conditions of the Project Area. Examples of the types of seed mixes that are being considered include the Eastern Great Lakes Native Pollinator Mix and the Wet Soil Native Seed Mixes, or similar. These plantings will be installed in the setback space between the Project perimeter fence and the edge of roadside rights-of-way. These plantings would grow to an average height of 4-6 feet (in the summer). As shown in Figure 13, the introduction of the pollinator species would soften the horizontal lines created by the security fence and reduce the visual contrast resulting from the Project.
- The Applicant is considering as part of the landscape plan the installation of native shrubs and trees in selected sensitive areas, such as along fence lines adjacent to residences. Use of native shrubs and trees will not necessarily result in plantings that completely screen views of the Project, but instead would serve to soften the overall visual effect of the Project and help to better integrate the Project into the surrounding landscape. Plantings would be selected based on aesthetic properties, to match or complement the existing vegetation at a given location.
- No evergreen hedges are proposed as part of visual mitigation for the Project. Installation of evergreens and planted hedges would not be in keeping with the existing rural agricultural character of the Project Area, which is defined by open farm fields backed by occasional deciduous hedgerows or woodlots.
- No earthworks or berms are proposed as part of visual mitigation for the Project. Because of the flat topography of the Project Area, only minimal grading or earthwork is anticipated. The introduction of earthen berms (or other earthworks) would result in new visual elements that are not in keeping with the existing landscape and would not be appropriate.”

(Angelina Ex. 1 at Exhibit I at 40-41).

Angelina is also committed to include mitigation, through a landscape plan to be included as part of the final design of the Project, to address situations such as “a unique viewer location in close proximity to the equipment, such as a home immediately adjacent to the Project and that

is directly oriented toward a broad and unobstructed view of it.” (Angelina Ex. 1 at 88). The Joint Stipulation at Condition 11 also requires Angelina to

“prepare a landscape and lighting plan that addresses the aesthetic and lighting impacts of the facility where an adjacent non-participating parcel contains a residence with a direct line of sight to the project area and also include a plan describing the methods to be used for fence repair. **The plan shall include measures such as fencing, vegetative screening or good neighbor agreements.**”

(Joint Ex. 1 at 7, Condition 11) (emphasis added).

Based on the results of the VRA and Mr. Robinson’s testimony, as well as the mitigation required by the Application and the Joint Stipulation, the Board has adequate evidence to find and determine that the Project will have a minimal visual impact.

b. The Project will have a Minimal Impact on Lighting

CCPC also takes issue with the alleged lack of detail regarding lighting in the Application. (CCPC Brief at 12-14). CCPC makes no argument that lighting from the Project somehow does not meet an applicable statutory standard in R.C. 4906.10. Instead, CCPC relies solely on an alleged deficiency in not describing measures to limit impact due to lighting. (CCPC Brief at 14, citing OAC 4906-4-08(D)(4)(f)). In making its argument, CCPC ignores portions of the VRA, which was included as an attachment to the Application. Specifically, the VRA states that:

- **“Other than the substation, and a few other select locations, no facilities within the Project will require night lighting, which will minimize light pollution/nighttime visual impacts.**
- **The proposed substation will incorporate motion sensors for the security lighting, which will minimize the amount of time that the lights are on and avoid significant off-site lighting impacts.**
- **All security and work-related lights will be shielded, downward facing fixtures design to minimize light pollution and/or off-site lighting impacts.”**

(Angelina Ex. 1 at Exhibit I at 40) (emphasis added).

In addition, as discussed in the VRA and Mr. Robinson's testimony, glare from solar panels is not a concern. Mr. Robinson testified that "solar panels are designed to maximize energy production by capturing as much light as possible, which means that they inherently have low levels of glare from reflection of sunlight." (Angelina Ex. 12 at 6-7).

In fact, panels have less glare and reflectivity than standard glass, and similar reflectivity to many natural surfaces. (Angelina Ex. 1 at Exhibit I at 36). Specifically, as noted in the VRA:

The potential for reflectivity or glare from a PV system is generally lower than the glare and reflectance generated by common reflective surfaces in the surrounding environment. However, glare is frequently raised as a possible concern for solar PV installations. PV panels are designed to absorb as much of the solar spectrum as possible to maximize Visual Resource Assessment Angelina Solar Farm generation efficiency and there is an inverse correlation between light absorption and reflection. Consequently, virtually all PV panels installed in recent years have at least one anti-reflective coating to minimize reflection and maximize absorption. The reflectivity of a surface is often measured as albedo, which is the fraction of solar energy reflected by that surface. For comparison, the albedo of PV panels (0.10-0.30) (Lasnier and Ang, 1990) is **generally similar to, or lower than many natural surfaces** such as coniferous forests (0.20), grasslands (0.25), dry sand (0.45), and snow cover (0.50) (Budikova, 2010). Furthermore, the glare and **reflectivity of PV panels have been found to be lower than the glare and reflectivity generated by standard glass.** (SunPower, 2009)

(Angelina Ex. 1 at Exhibit I at 35-36) (emphasis added).

Angelina's commitments with respect to lighting clearly meet the relevant regulatory requirements to describe and evaluate lighting impact, and provide the Board with sufficient evidence to find that the Project will have a minimal impact on lighting in the area surrounding the Project Area, and show that glare is not a concern.

c. The Project's Impact on Motorists' Visibility is Minimal

CCPC claims, without a scintilla of actual evidence, that the Project's "obstruction of motorists' views of cross-traffic at road intersections could be a problem at any intersection at which **solar panels or fences are so close to the intersections that they obstruct motorists'**

views.” (CCPC Brief at 36) (Emphasis added). There is no evidence that solar panels or fences will obstruct views. The perimeter fence of the Project will be set back at least 25 feet from the edge of a public road right-of-way. (Angelina Ex. 1 at 54; Joint Ex. 1 at 6, Condition 3). Any above-ground equipment associated with the Project (other than the perimeter fence) will be set back at least 40 feet from the edge of a public road right-of-way. (Id.) In addition, as specifically stated by Mr. Robinson in uncontroverted testimony, **“the setback distances in the Application ... would provide adequate distance for motorist visibility at road intersections at the edges of the Project Area,** [and] additional setback distance [as provided in Joint Stipulation Condition 3] will serve to further improve motorist visibility at those intersections, while maintaining effective screening.” (Angelina Ex. 16 at 3) (emphasis added).

Thus, the Board has sufficient evidence to find and determine that the Project’s impact on motorists’ visibility is minimal.

2. The Board has Adequate Evidence to Find and Determine that the Project’s Noise Impacts will be Minimal (CCPC Brief Section II.C and Section II.D)

- a. Operational Noise will not be an Issue for the Project and Sufficient Evidence has been Provided to the Board for it to Find and Determine that Operational Noise will be Minimal

As with the remainder of CCPC’s Brief, CCPC does not claim that operational noise will not represent the minimal adverse environmental impact (as required by R.C. 4906.10(A)(2)-(3)), but rather focuses on perceived regulatory deficiencies with the Application.

CCPC expresses **no concerns** about potential noise from the substation, the panels themselves, or almost all other elements of the Project. Rather, CCPC attempts to make inverter noise an issue in this proceeding by alleging that Angelina has not adequately characterized the impact that noise from inverters may have at the property boundary or at residences near the Project Area, and fails to describe equipment and procedures to mitigate the effects of the

Project. (CCPC Brief at 19). CCPC's concerns are overblown, and the Angelina Application includes all information required by rule, and to allow the Board to determine that the Project represents the minimum adverse environmental impact.

- i. *The Application Adequately Describes Inverter Noise and Provides Sufficient Information for the Board to Determine There will be no Negative Impact*

To support its argument, CCPC attempts to use a study performed by the Massachusetts Clean Energy Center that was relied on by Angelina's expert, Mr. Hessler, that was included in the Application by reference, and that was made part of the record as CCPC Exhibit 1 (the "Massachusetts Study"). CCPC argues that the information in the Massachusetts Study shows that the Project's inverters will be a "serious nuisance" in the area surrounding the Project Area because the low background sound in the Project Area will not mask the sound from the inverters. (CCPC Brief at 18).

In further support of its concerns regarding inverters, CCPC argues that there is no requirement in the Application that inverters be located sufficient distance from a non-participating property or residence. (CCPC Brief at 15). CCPC claims, without any citation to the record, that "[i]f certificated, Angelina's Project will be allowed to site an inverter a mere 25 feet from a neighbor's land and only 50 feet from a neighbor's house." (Id.) CCPC's arguments ignore portions of the Application and the remainder of the record that belie its claims.

As an initial point, CCPC misstates the information in the Massachusetts Study. CCPC states that "L90 **background** sound levels in the Massachusetts [Study] ranged from 41.0 dBA to 48.6 dBA at a distance of 150 feet from the inverters." (CCPC Brief at 17-18) (emphasis added). The measurements reported in the Massachusetts Study for sound 150 feet from an inverter are not "background" sound levels, however, because they include any sound being

produced by the inverters themselves. As an example, at Site 1, the Massachusetts Study reported a L90 “background mean value” of 43.9 dBA. (CCPC Ex. 1 at 9, Table 1). At the same site, the measured sound (with inverters operating) 150 feet from each of the two inverters studied ranged from 41.0 dBA to 45.2 dBA. (CCPC Ex. 1 at 10, Table 2).

The Massachusetts Study reported background L90 background mean value sound levels (dBA) at the three sites evaluated of 43.9, 49.6, and 42.5, respectively. The Massachusetts Study also reported L90 sound levels (dBA) 150 feet from an inverter at the three sites of 41.0-45.2, 46.2, and 41.8-43.9, respectively. (CCPC Ex. 1 at 9, 10, 17, 18, 25, 26).

Thus, in the Massachusetts Study, **noise from inverters at 150 feet from the inverter pad approached the measured background levels.** (Angelina Ex. 1 at Exhibit E at 13; CCPC Ex. 1 at iii). This means that there was sufficient background noise at that measurement point that any inverter sound could not be discerned. (TR at 255-256). Because the Massachusetts Study provides information on inverter sound 150 feet from an inverter (a measurement that includes both background sound level and inverter sound), it gives a sound level for inverters that can be used to consider the impact of inverter noise. The fact that the inverters at one site (of the three evaluated) in the Massachusetts Study were located approximately 400 feet away from the property boundary does not change this conclusion, because measurements in the Massachusetts Study were taken 150 feet away from an inverter. (CCPC Brief at 17).

As CCPC itself acknowledges, the Application obligates the Project to “site the inverters within the solar fields to ensure they do not cause material, adverse impacts to any sensitive, off-site receptors.” (CCPC Brief at 18, citing Angelina Ex. 1 at 58) (Emphasis removed). Mr. Herling testified in support of that obligation, noting that, “[i]f it’s determined that a given technology would have an impact at a residence at a closer distance then that would be taken into

account, but the Application, as its written here, intends to install the inverters on the interior of the Project.” (TR at 79).

Mr. Hessler testified that inverter units would be “at least several hundred feet from any [Project] boundaries” and that Angelina would place inverters “in the most optimal locations, the maximum distance from anyone.” (TR at 501). In Mr. Hessler’s opinion, “the Project Area is definitely large enough that large buffer distances can be accommodated.” (Id. at 501-502). In addition, as testified by Mr. Hessler “[inverter] sound is only perceptible at short distances and it is highly unlikely to be significant or problematic at any residences, which would all generally be hundreds of feet from any given inverter.” (Angelina Ex. 14 at 4) (Emphasis added).

Thus, relying on the information in the Massachusetts Study, which establishes a conservative maximum sound estimate for the inverters, combined with the commitments in the Application regarding inverter location to avoid causing material, adverse impacts, the Application describes operational noise at the property boundary (inaudible), and indicates the operational noise level at sensitive receptors (no impact). Mr. Hessler ultimately concluded that noise from inverters is “not at all” a legitimate concern. (Angelina Ex. 20 at 2).

To fully understand Mr. Hessler’s conclusion, it is important to put the sound level described in the Massachusetts Study into context. As Mr. Hessler testified, inverters “are only active during the daytime and are completely inert and silent at night when sensitivity to noise is much greater.” (Angelina Ex. 20 at 3). In addition, inverters are very quiet. A noise level of 40 dBA is equivalent to an empty theater or library. (CCPC Ex. 1 at A-3). A noise level of 50 dBA is equivalent to a dishwasher in the next room. (Id.) In addition, Mr. Hessler testified that “**40 dBA ... is the minimum absolute threshold any project would ever need to be designed to**

because that sound level is so low that complaints are extremely rare even when there is no significant background masking noise present in the environment.” (Angelina Ex. 20 at 5-6) (emphasis added). Sound from inverters in general, as testified by Mr. Hessler, is “comparable to a domestic air conditioner unit.” (TR at 500). In fact, measurements conducted by Mr. Hessler on the new air conditioning unit at his house show that it is **louder** than some of the inverters in the Massachusetts Study. (Id.)

The information from the Massachusetts Study should also be evaluated in the context of sound limits the Board has found acceptable in other renewable generation cases at the exterior of residences. (See, e.g., *In re Champaign Wind*, Case No. 12-0160-EL-BGN, Opinion, Order and Certificate, May 28, 2013 at page 88 (allowing a sound level of 5 dBA over a **nighttime** Leq of 39 dBA); *In re Blue Creek*, Case No. 11-3644-EL-BGA, Order on Certificate Amendment, November 28, 2011 at page 5 (allowing a sound level of 5 dBA over a **nighttime** Leq of 43.6 dBA)). As Mr. Hessler noted in his testimony, “inverters are only active during the daytime and are completely inert and silent at night when sensitivity to noise is much greater.” (Angelina Ex. 20 at 3). If 5 dBA were added to the measured background levels in the Massachusetts Study, the observed sound levels 150 feet from an inverter would be well below the threshold previously found acceptable by the Board for nighttime noise, even without taking into account the greater tolerance to noise during the daytime. The same conclusion would result if the 39 dBA Leq for the Angelina project area (as found by Mr. Hessler) was used. (Angelina Ex. 20 at 5).

ii. *Any Noise from Inverters can be Mitigated*

Mitigation can also be easily implemented if somehow an operational noise issue develops. Mr. Hessler, in his Noise Report attached as Exhibit E to the Application noted that “... if [an inverter] were to unexpectedly generate complaints, options, such as cabinet damping

and ventilation silencers, would be available to retroactively mitigate noise from these devices and resolve any issue.” (Angelina Ex. 1 at Ex. E, Noise Report at 13). Mr. Hessler also testified in his written direct testimony “[i]rrespective of the specific inverter model eventually selected for the project, it is important to understand that the sound emissions from these units are not fixed and largely unavoidable, but rather can be easily mitigated on a retrofit basis in the unlikely event that any sort of noise issue should arise.” (Angelina Ex. 20 at 2).

Accordingly, given the evidence in the record, the Board has more than adequate evidence to find and determine that noise from the Project’s inverters will have a minimal impact.

b. Construction Noise will not be an Issue for the Project and Sufficient Evidence has been Provided to the Board for it to Find and Determine that Construction Noise will be Minimal

CCPC argues that Angelina should be required to “devise more effective mitigation measures to address ... noise.” (CCPC Brief at 21). Angelina is already committed to adequate mitigation measures that will result in the Project having a minimal impact on noise during construction. Angelina will mitigate construction noise by employing best management practices, including limiting the hours of construction, maintaining vehicles in proper working condition, and working with the local community to advise residents of those periods when sustained construction activity is expected to take place in relatively close proximity to their homes. (Angelina Ex. 1 at 59). In addition to the mitigation of construction noise described above, the Joint Stipulation requires that:

General construction activities shall be limited to the hours of 7:00 a.m. to 7:00 p.m., or until dusk when sunset occurs after 7:00 p.m. **Impact pile driving shall be limited to the hours between 9:00 a.m. and 7:00 p.m. Monday through Friday**; hoe ram and blasting operations, if required, shall be limited to the hours between 10:00 a.m. and 4:00 p.m., Monday through Friday. Construction activities that do not involve noise increases above ambient levels at sensitive receptors are permitted outside of daylight hours when necessary. The

Applicant shall notify property owners or affected tenants within the meaning of Ohio Adm. Code 4906-3-03(B)(2) of upcoming construction activities including potential for nighttime construction.

(Joint Ex. 1 at 7, Condition 10) (emphasis added).

This condition is common for other projects that have been recently granted certificates by the Board, both for renewable and fossil fuel-fired generation facilities. *See e.g. In re Hecate Energy Highland, LLC*, Case No. 18-1334-EL-BGN, Opinion, Order and Certificate, May 16, 2019 at 18; *In re Harrison Power LLC*, Case No. 17-1189-EL-BGN, Opinion, Order and Certificate, June 21, 2018 at 33.

CCPC also argues that the Noise Report produced by Mr. Hessler wrongly claims that the installation of posts will be “fairly short-lived in any particular location.” (CCPC Brief at 21, citing Angelina Ex. 1 at Exhibit E at 2). Despite CCPC’s arguments to the contrary, construction or pile driving **in any particular area** will in fact be brief in duration.

In his testimony, Mr. Herling estimated that installation of posts throughout the **entirety** of the Project Area, not in any single location, would take 3-4 months. (TR at 63). Mr. Herling further estimated that a single crew of post installers would be able to install approximately 100-200 posts every day, and that the actual installation of a single post would take under a minute. (Id. at 67, 130). The **majority** of the time in post installation is spent relocating machinery between post locations. (Id. at 130).

CCPC attempts to make hay of Mr. Herling’s estimate that 8,000 posts will be installed in a 120-acre area, claiming that he “could not say how long post installation would occur.” (CCPC Brief at 21). CCPC is wrong. Not only did Mr. Herling testify that his 8,000-post estimate was a “maximum ... very, very conservative number in terms of the high end,” he went on to estimate that, if only one crew were used to install posts, installation would take 40 to 80 days. (TR at 68). In reality, multiple crews would be working on post installation in a given area (and

throughout the Project Area) at the same time. As Mr. Herling further testified, in his experience with the construction of solar projects, multiple crews work in the same field. (Id. at 69). In addition, construction in the 120-acre area (or any other part of the Project Area) will be limited to daylight hours by Joint Stipulation Condition 10.

Given the short duration of construction in any given area and the limitations in Condition 10 of the Stipulation on the hours of construction activities (including pile driving), the Board has adequate evidence to find that the Project's construction noise will have a minimal impact.

3. The Board has Adequate Evidence to Find and Determine that the Project's Impacts on Drain Tile, Surface Water Drainage, and Water Quality will be Minimal (CCPC Brief Section II.E, Section II.N, and Section II.O)

a. The Board has Adequate Evidence to Find and Determine that Required Drain Tile Repairs will be made Promptly

CCPC attempts to manufacture an issue regarding drain tile, alleging that because the Application uses the phrase "commercially reasonable," that the Application and the Project are deficient because Angelina may not be obligated to repair drain tile in some circumstances. (CCPC Brief at 23-24). Again, CCPC is incorrect.

As described in Mr. Herling's testimony, the use of the term "commercially reasonable" is "not talking about repairing never or at all. It's talking about repairing promptly. So I think that's different than the question you're asking unless we're talking purely in hypotheticals. We don't say the words "commercially reasonable efforts to repair." It's "promptly repair." (TR at 87-88). Mr. Herling went on to note that "commercially reasonable" relates to "how promptly we'll fix it depending on the purpose, the function, and the location of the tile in this situation." (Id. at 88). For example:

“[i]f it’s a tile that’s needed to drain land that is adjacent to the Project that’s not participating, then it’s something that we are certainly obligated to fix. For our own landowner’s tile, that might be more used to enhance yields as opposed to our use of draining the Project, then you’ll certainly have a different metric there.”

(TR at 84-85).

Thus, Angelina is obligated to repair drain tile in the Project Area. “Commercially reasonable” goes toward how quickly a repair may be performed, while complying with the Joint Stipulation obligation that a repair be performed “promptly.”

In addition, the Joint Stipulation requires that “[d]amaged field tile systems shall be promptly repaired no later than 30 days after such damage is discovered, and be returned to at least original conditions or their modern equivalent at the Applicant’s expense.” (Joint Ex. 1 at 8, Condition 16). There is no “commercially reasonable” qualifier on this obligation. (*Id.*)

CCPC also takes issue with this ‘promptness’ requirement. As evidence, CCPC relies on the interpretation of CCPC witness Rachael Vonderhaar. (CCPC Brief at 24). In Ms. Vonderhaar’s direct testimony, she speculated that Joint Stipulation Condition 16 “would allow up to 30 days of flooding to occur.” (CCPC Ex. 3 at 3). At hearing, however, Ms. Vonderhaar acknowledged both that “promptly repaired” is synonymous with “as soon as the opportunity exists” and that she considered the outside deadline of 30 days established in Condition 16 in the Joint Stipulation to be reasonable. (TR at 380). Thus, based on Ms. Vonderhaar’s admissions, no changes to the Joint Stipulation are necessary to ensure that repairs are made promptly.

Given the commitments in the Application as well as the Joint Stipulation, the Board has adequate evidence to find and determine that the overall impact to drain tile will be minimal.

b. The Board has Adequate Evidence to Find and Determine that Drain Tile in the Project Area will be Identified and Avoided to the Extent Practicable

As described in Mr. Waterhouse's expert testimony, Angelina is engaged in a process to identify all drain tile in the Project Area. (TR at 139). Mr. Waterhouse testified regarding the progress of this process. Specifically, efforts undertaken to date include: 1) working with the Preble County Engineer and the Preble Soil & Water Conservation District to obtain maps of any drain tile in the Project Area; 2) discussions with landowners in the Project Area to identify drain tile locations; and 3) conducting an on-site review to identify drain tile indicators visually. Prior to construction, additional analysis of data gathered will be reviewed and an action plan determined for each property in the Project Area. (Angelina Ex. 8 at 6).

CCPC claims that these efforts are insufficient, and would also impose on Angelina a **never-ending and far-reaching obligation** to consult with **“all potentially affected upstream and downstream landowners (both adjacent and non-adjacent to the Project Area).”**

(CCPC Brief at 26) (emphasis added). CCPC's mandate is simply unnecessary and potentially unworkable. As Mr. Waterhouse testified,

“It should be possible to identify drain tile in the Project Area using the methods described [above]. If advance identification is not possible, it should be possible, during construction, to identify damaged drain tile and repair it at that time. Damaged drain tile generally can be identified by the presence of water flowing out of the ground in an unexpected location. Excavating the area and following the source of the flowing water will lead to any broken pipe. The construction period for the Project should be long enough for an ample number of rain events to reveal any locations in which tile was damaged but not immediately discovered and repaired.”

(Angelina Ex. 8 at 3-4).

In addition, Mr. Waterhouse testified that consultation with neighboring landowners might occur, if needed. In the course of his assessment with respect to consultation with upstream adjacent landowners “additional investigation will be dependent upon the further steps

that we intend to take based on what the information is that we've gathered so far." (TR at 140).

As an example, Mr. Waterhouse testified that, in the case of a drain tile originating on an adjacent property that flows into the Project Area: "we would want to know as much information as possible about the location of those tiles and we would intend to consult with those landowners to find out what information they can give us." (Id.) With respect to downgradient properties, Mr. Waterhouse testified that "I can't say that we absolutely wouldn't [consult with the downgradient property owner]. It would depend on what the site-specific conditions are and what we find from the rest of our Drain Tile Assessment." (Id. at 140-141).

A mandate to consult landowners, however, is not workable and may actually slow the process of tile identification or repairs, for example, if a neighboring landowner is unwilling or unavailable for consultation on the issue or repair. In addition, an open-ended obligation to consult with landowners not adjacent to the Project Area is impractical and makes no sense. Tile networks could conceivably be connected for miles in any direction, and an obligation to consult with **all landowners** could result in Angelina being forced to consult with most of Preble County.

The efforts that Angelina is engaged in should provide it with sufficient information to avoid or minimize to the maximum extent practicable damage to drain tile. The Board has adequate evidence to find and determine that the overall impact to drain tile will be minimal.

c. The Board has Adequate Evidence to Find and Determine that the Project's Impacts on Surface Water Drainage will be Minimal

As noted in the Application, "[t]he vast majority of the land surface within each solar field, including almost all of the area below the arrays themselves, will be planted with a robust, low-growing seed mix, primarily native grasses and other low-maintenance varieties."

(Angelina Ex. 1 at 12). Further, as testified by Mr. Waterhouse,

“The Project should not have an impact on drainage, nor should it result in an increase in runoff from the Project Area. Although the solar panels and some of the ancillary equipment are impervious, the large gaps between panel arrays to prevent shading and other open areas, combined with the vegetation surrounding and beneath each panel, means that drainage and runoff characteristics should not be dissimilar from a farmed field with crops growing on it. **In my experience, the construction and operation of similar projects to the Project has not led to drainage issues, or an increase in runoff.** In fact, when compared to a fallow field, I would expect the Project to have superior drainage and runoff characteristics, due to the year-round vegetation maintained in and around the Project Area.”

(Angelina Ex. 8 at 4) (emphasis added).

At hearing, Mr. Waterhouse reiterated this, testifying that:

“Our visual inspection of the Project Area to confirm that most of the Project Area is currently used for cultivated farming, with the understanding that the ultimate project conditions will convert that bare farmland to vegetation, tells us that that change in land use will result in a reduction of stormwater runoff. So even without doing calculations, **we know that a typical project of this nature will ultimately see a reduction of runoff, not an increase, based on that change in land use.**”

(TR at 150) (emphasis added).

Mr. Waterhouse’s testimony with respect to drainage in the Project Area is corroborated by the testimony, both written direct and during cross-examination at hearing, of Matt Marquis, another licensed professional engineer with experience in hydrology and hydraulics.

Mr. Marquis testified that “vegetation, grasses post-construction, and grass is a great best-management practice for managing erosion and sediment runoff and managing stormwater runoff from a project site.” (TR at 515). Mr. Marquis also testified that “[b]ased on my experience in watershed models, doing hydrologic studies of watersheds that range in size from 1 acre to 60 square miles, and after reviewing the Application, **the proposed changes to land use in this project in my experience, in my opinion, do not - would not result in an increase in runoff.**”

(TR at 525) (emphasis added).

CCPC quotes from Angelina’s Route Evaluation Study to make it appear as though Mr. Waterhouse cannot be correct about the reduction in run-off because the “planned use [of construction equipment] appears to contradict Angelina’s representation that little or no grading will occur.” (CCPC Brief at 44, citing Angelina Ex. 1 at Exhibit D at 2). The Route Evaluation Study noted that “[c]onstruction equipment such as excavators, bull dozers, and wheel tractor-scrapers will be transported to the site” (Angelina Ex. 1 at Exhibit D at 2) (emphasis added). The listing of equipment in the Route Evaluation Study is a mere indication of the general types of equipment that **may** be used for the Project, not that they **will** be used, much less an indication of how much grading will be required. In addition, throughout the Application, Angelina notes that the Project Area is “extremely level” and will thus require “minimal,” “minor,” or “limited” grading, if any. (Angelina Ex. 1 at 6, 12, 42, 46, 63). CCPC’s out-of-context citation to the Route Evaluation Study does not justify the opposite conclusion.

CCPC then goes on to make the unsupported, and uncited, statement that “[s]ince these machines are used to move dirt, their planned use appears to contradict Angelina’s representation that little or no grading will occur.” (CCPC Brief at 44). Actual evidence in the record in this case, including testimony from Mr. Herling, shows that minimal grading in the Project Area would occur. (TR at 52). Moreover, this minimal grading will not result in any increase in run-off. As testified by Mr. Marquis with respect to access roads, though some compaction may occur, “[i]t’s not typically a high enough amount of a conversion to a compacted gravel surface to warrant any sort of an increase in runoff.” (Id. at 524).

Finally, CCPC contends that construction and operation of the Project will increase amount and speed of surface water flows. (CCPC Brief at 44). CCPC’s contention is incorrect. CCPC itself cites to Angelina’s Groundwater Hydrogeological and Geotechnical Desktop

Document Review Summary Report (“Hydrogeological Report”) in an attempt to show that Angelina will alter the Project Area’s Terrain to more quickly and thoroughly drain the land. (CCPC Brief at 45, citing Angelina Ex. 1 at Exhibit F at 6).

The passage from the Hydrogeological Report cited by CCPC gives no indication that water will drain more quickly and thoroughly, leading to adverse impact:

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.

(Angelina Ex. 1 at Exhibit F at 6).

Nowhere does this section (or any other section) of the Hydrogeological Report indicate that the Project Area will drain more quickly or thoroughly because of Angelina’s activities. This is merely a generic description of work that may be required.

In fact, the Hydrogeological Report squarely contradicts CCPC’s argument, concluding: **“it does not appear that the construction of the proposed solar array will have a significant impact on the local geology and/or hydrogeology of the Project Area.”** (Angelina Ex. 1 at Exhibit F at 7) (emphasis added). This conclusion is supported by Mr. Waterhouse’s conclusion, described above, that “the construction and operation of similar projects to the Project has not led to drainage issues, or an increase in runoff.” (Angelina Ex. 8 at 4).

CCPC relies extensively on the anecdotal testimony of Walter Mast in an attempt to describe the potential water-related consequences of the construction of the Project in florid detail. (CCPC Brief at 46-50). Importantly, Mr. Mast has not reviewed the Application filed by Angelina. (TR at 457-458). Mr. Mast has never designed a utility-scale solar farm, nor has he even been near one. (TR at 450-451). In fact, Mr. Mast is not familiar with any solar farms. (Id.

at 451). Mr. Mast does not know if vegetation will be planted within the Project Area. (Id. at 456). And Mr. Mast has not conducted any drainage calculations or studies regarding the impact of the Project on flooding. (TR at 467-468).

Mr. Mast testified that, to develop his testimony regarding flooding “I use – Einstein [presumably Albert] used thought experiments on -- rather than actual experiments, so I use thought experiments. You see, you can measure that, so I use thought experiments.” (TR at 475). Mr. Mast’s testimony with respect to the impact of the Project on runoff is not credible or reliable.

Yet CCPC relies on Mr. Mast’s testimony to postulate a “disagreement between Mr. Mast and Mr. Marquis” which is allegedly illustrative of the ways that the Applications fails to comply with rule requirements. (CCPC Brief at 51). As an initial matter, there is a meaningful distinction between Mr. Marquis’s substantial and relevant experience and Mr. Mast’s lack of experience. Mr. Marquis has a master’s degree in civil engineering. (Angelina Ex. 21 at 2). Mr. Marquis’s experience includes a wide range of hydrologic and hydraulic analyses, surface water management and erosion and sediment control design, and his employer, Hull & Associates, has experience working on solar projects. (Id.; TR at 513). Mr. Marquis also reviewed the Application. (TR at 525). Mr. Mast has none of that experience, and, contrary to Mr. Mast’s testimony, Mr. Marquis’ testimony establishes that **“the proposed changes to land use in this project in my experience, in my opinion, do not - would not result in an increase in runoff.”** (TR at 525)

In claiming that the Application does not contain the appropriate information on quantification of surface flows, CCPC misreads the requirements of Ohio Adm.Code 4906-4-07(C). CCPC provides the following regulatory text:

OAC 4906-4-07(C)(2)(b) requires “an estimate of the ... quantity of aquatic discharges from the site clearing and construction operations” in the Application.

OAC 4906-4-07(C)(3)(d)(vii) requires the Application to contain a “quantitative flow diagram or description for water ... through the proposed facility ... including... [r]un-off from soil and other surfaces” during facility operation.

(CCPC Brief at 51) (emphasis omitted).

The Application includes the “estimate” required by Ohio Adm.Code 4906-4-07(C)(2)(b) and the “description” required by Ohio Adm.Code 4906-4-07(C)(3)(d)(vii). The estimate is that no discharges from the Project are expected to occur. (Angelina Ex. 1 at 46). In addition, the Application states, with respect to run-off, that “[t]he Project will not generate any water or water-borne waste, including sewage, blow-down, chemical and additive processing, waste water processing, **run-off** and leachates from fuel or solid wastes, or oil-water separators and other surfaces.” (Id. at 47) (emphasis added).

Given the unrebutted evidence supplied by Mr. Waterhouse in his written direct testimony as well as at hearing, combined with the information in the Application and as supported by Mr. Marquis, the Board has sufficient evidence to find and determine the Project will have a minimal effect on surface water.

d. The Board has Adequate Evidence to Find and Determine that the Project’s Impacts on Water Quality will be Minimal

Contrary to CCPC’s unsupported claims, given the limited nature of the construction activities associated with the Project, and the fact that “no discharges [to water bodies and receiving streams] are expected to occur,” the Board has adequate evidence to find that impacts on water quality will be minimal (if any). (Angelina Ex. 1 at 46). In addition, even if compliance with the rule was still at issue, CCPC misreads the rule requirements, and, in any case, the Application is fully compliant with the rules.

CCPC argues that the Application failed to “describe any changes in flow patterns and erosion.” (CCPC Brief at 53). The Application did so. “There are no anticipated changes in flow patterns and erosion because the Project Area already is level and very little, if any, grading will be needed.” (Angelina Ex. 1 at 46). CCPC takes selective and out-of-context quotes from the Ecological Assessment included in the Application as Exhibit G in an attempt to undermine this statement and bolster its own argument.

For example, CCPC claims that “Angelina states that grading will be conducted to create a finished grade slope suitable for the substation, roads, racking installation, and storm water management.” (CCPC Brief at 53, citing Angelina Ex. 1 at Exhibit G at 1-5). In so doing, CCPC omits a key introductory phrase. The actual quote is a more generic, “[w]here required, grading will be limited to creating a finished grade slope suitable for the substation, roads, racking installation, and storm water management.” (Angelina Ex. 1 at Exhibit G at 1-5) (Emphasis added). This statement should be also read in context with the commitment in the Ecological Assessment that “[t]emporary soil erosion and sedimentation control measures will be installed ... **as applicable**, in accordance with approved Preble Soil & Water Conservation District’s soil erosion and sediment control (SESC) Plans.” (Id. at 1-4 to 1-5) (Emphasis added).

CCPC’s reliance on these generic and out-of-context statements does not undermine the commitment in the Application that “[t]here are no anticipated changes in flow patterns and erosion” (Angelina Ex. 1 at 46).

Next, CCPC argues that the Application fails to provide information on water quality, as required by regulation. (CCPC Brief at 55-56). This information is not required because “there will be no impacts to water quality due to construction and operation,” “[the Project] will not cause any aquatic discharges,” and “[n]o equipment is proposed to control effluents discharged

to water bodies and receiving streams because no such discharges are expected to occur.” (Angelina Ex. 1 at 45, 46).

In addition, Angelina is required only to “provide **available data**” for completion of the construction stormwater permit application. (OAC 4906-4-07(C)(1)(e)). Thus, if no data is currently available, none need be provided. As described above, there will be no changes in flow patterns and erosion. (Angelina Ex. 1 at 46). The Application does not contain the map identified in OAC 4906-4-07(C)(2)(a) because “[n]o water monitoring and gauging stations are proposed to be utilized for construction.” (Angelina Ex. 1 at 46).

As committed in the Application (“Nonetheless, the Project will implement an approved [stormwater pollution prevention plan, or] SWPPP for erosion control and the management of storm-water”), and as Mr. Waterhouse’s extensive testimony describes, Angelina will implement a SWPPP as part of an Ohio EPA construction stormwater permit. (Angelina Ex. 1 at 45; TR at 147-148). The Joint Stipulation also requires a SWPPP. (Joint Ex. 1 at 9, Condition 16). The SWPPP will include “a combination of narrative, design plans, and exhibits, with the general purpose of describing and detailing how the contractor is going to avoid releasing sedimentation, sediment, and erosion control from the Project site ... It would have details on all best management practices used to prevent that sedimentation.” (TR at 148).

Given Angelina’s commitment to develop and implement a SWPPP regardless of the fact that no discharges to water bodies and receiving streams are expected to occur, the Board has sufficient evidence to find and determine that there will be minimal impact to water quality.

4. The Board has Adequate Evidence to Find and Determine the Project’s Impacts on Crime and Emergency Services will be Minimal (CCPC Brief Section II.F and Section II.I)

Having no actual evidence in the record to support its claims regarding crime and public safety issues, CCPC resorts to inaccurate, speculative, and inflammatory statements. As

examples, CCPC claims that “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 the Citizens.” (CCPC Brief at 28). CCPC later in its brief reiterates the unsupported and uncited claim that “the Application fails to provide for protection against criminals who will be attracted to steal the Facility’s recyclable materials.” (Id. at 34).

To the contrary, there is simply no evidence in the record that criminals will be attracted to the community by the Project, much less that “they” might harm CCPC’s members. There is also no evidence that criminals will be “stealing wire and other recyclable components” or that the Project is an “easy target.” CCPC’s argument is inappropriate because it is based purely on conjecture and speculation. *In re Complaint of Buckeye Energy Brokers, Inc.*, Case No. 10-0693-GE-CSS, Entry on Rehearing, February 23, 2012 at ¶ 40 (“The Commission must rely squarely on the evidence presented in this case and not on speculation or [conjecture].”) Notably, CCPC presented no evidence that existing solar installations in Ohio (or any other location) have been the victims of “stealing wire and other recyclable components.”

Indeed, the Board has adequate evidence in the record to determine that the Project will **not** have a negative impact on emergency services in the local area and **no impact** on crime, and thus will serve the public interest. In compliance with Ohio Adm.Code 4906-4-08(A), the Application describes the safety measures to be taken by the Project, as CCPC acknowledges. (CCPC Brief at 28). The Project will implement security measures including:

- The solar panel arrays would be grouped in large clusters that would be fenced for public safety and equipment security, with locked gates at all entrances.
- (Angelina Ex. 1 at 7-8).

- Periodic security checks will be conducted. (TR at 93).
- All personnel working at the Project “whether it’s operations or maintenance, is trained to report anything they see that’s unusual; so whether it’s their distinct task to be doing security for the Project, or they’re driving by and something is amiss, then they -- then that’s reported.” (TR at 92).
- Nighttime security checks or other methods to ensure security at night may be used. (TR at 92).

All of these measures provide the Board with sufficient evidence to find and determine that there will be no crime impact as a result of the Project, and that the Project will serve the public interest.

With respect to other emergency services, Angelina intends to develop an emergency response plan for local officials and emergency personnel. (Angelina Ex. 1 at 55). The Joint Stipulation also commits Angelina to provide training, ongoing safety meetings, and any specialized equipment to local fire and EMS service providers. (Joint Ex. 1 at 11, Condition 28). These safety meetings will be held on an ongoing basis. (TR at 123). These safety meetings will be effective in ensuring that local first responders are adequately prepared to respond to any issue at the Project.

As Mr. Herling, a former EMT and operations director for a local volunteer EMS testified:

“from my experience ... safety meetings would be adequate as the way -- in the way I’ve described them as kind of a refresher. Any department is going to constantly be training their members and the Director will certainly keep -- the Director of Emergency Response will certainly keep a record and add to how they respond, in their general response plans, how to respond to any incident at the Solar Project....”

(TR at 123-124).

In addition to the ongoing safety meetings, Angelina will offer, as required by the Joint Stipulation, an initial training. This initial training would be “situational training specific to solar energy facilities [and] will include in such training any emergency procedures which may be specific to the solar array model used for the project.” (Joint Ex. 1 at 11, Condition 28).

The concerns CCPC raises about funding for emergency services (for both the county sheriff as well as local fire and emergency response) are overblown. At best, CCPC offers speculative evidence that the Project **could** pull sheriff’s deputies away from their other duties. (CCPC Ex. 2 at 12). Ms. Vonderhaar also testified, in her written direct testimony, that “the county lacks the funding necessary to hire the deputies necessary to patrol the Project Area.” (CCPC Ex. 3 at 5, TR at 352). This testimony was undermined at hearing, with Ms. Vonderhaar acknowledging that funding for two additional deputies had been approved by the county. (TR at 354). One of the deputies will be a corrections officer and one will be an “additional road deputy.” (Angelina Ex. 18 at 1). The additional road deputy will mean that an “additional unit is available to handle calls for service” and that “the number of miles each deputy is responsible for” will be reduced. (Id. at 2). Thus, even now, the County has been hiring to expand the Sheriff’s Department. In addition, with the increased funding that will go to the County (and other local governments) as a result of the Project, the County may be able to expand staffing further. (Angelina Ex. 6 at 6-7; TR at 129-130) (describing Project payments to local government).

CCPC also offers no evidence that fire or emergency response will require more funding or will somehow be affected by the Project, beyond the mere statement that Israel Township contracts with other nearby government entities for firefighting services. (CCPC Brief at 35).

Both the initial training as well as the ongoing safety meetings will contribute to emergency responders' preparedness to respond to any issue at the Project. There is no evidence that the Project will represent a burden on emergency services, whether police, fire, or other emergency services. The Board has sufficient evidence to find and determine that the Project will not have a negative impact on emergency services in the local area.

5. The Board has Adequate Evidence to Find and Determine the Project's Impacts on Groundwater will be Minimal (CCPC Brief Section II.G)

CCPC claims that contaminants may somehow be "released from the solar panels by natural disasters or human destruction." (CCPC Brief at 31). A close read of the CCPC Brief reveals that CCPC has no evidence to support its claims, instead relying on "concerns," which lead to "requests" for changes to the Project. (CCPC Brief at 31-33). There is no evidence in the record that the Project actually poses any danger to groundwater or soil. There is only evidence that the Project does **not** pose any danger.

The panels are composed primarily of readily recyclable materials such as glass, aluminum, and copper. (Angelina Ex. 6 at 16). While there are some chemicals used in the panel manufacturing process, suppliers of solar panels that will be used for the Project have demonstrated that their products pass U.S. EPA's "Toxicity Characteristic Leaching Procedure" qualifying them as routine "solid" waste. (Id.; TR at 16).

In addition, in his direct testimony, Mr. Herling stated that:

"even if damaged by breakage or fire, solar panels are manufactured and constructed to be exceedingly unlikely to release any material to the environment necessitating soil or water remediation. Solar panels contain no liquids that can spill, and the semi-conducting material is full[y] encapsulated in tempered glass. Additionally, given the low profile of the Project, its components are not generally susceptible to high winds. While tornado-force winds may cause damage to the panels, that damage should not result in the release of anything to the environment which could cause negative impacts."

(Angelina Ex. 6 at 16).

Based on the benign nature of the panels, the Board has adequate evidence to find that the Project will have a minimal impact on soil and water.

6. The Board has Adequate Evidence to Find and Determine that Decommissioning Funding will be Available (CCPC Brief Section II.H)

Similar to CCPC's "concerns" regarding contamination, the only evidence that CCPC has regarding decommissioning is a "belief" that adequate funds will not be available to decommission the Project. (CCPC Brief at 33). At best, CCPC raises the highly speculative concern that because Angelina is allowed to select the means of financial security, the selected "security mechanism ... may fail." (Id.) There is no actual evidence in the record to support this conclusory statement, and the Board cannot rely on it in making its decision. *See In re Complaint of Buckeye Energy Brokers, Inc.*, Case No. 10-0693-GE-CSS, Entry on Rehearing, February 23, 2012 at ¶ 40 ("The Commission must rely squarely on the evidence presented in this case and not on speculation or [conjecture].")

In contrast, Angelina is required to post financial security, e.g. a decommissioning bond, to ensure that funds are available to pay for the net decommissioning costs. Angelina will retain an independent and registered professional engineer to calculate the net decommissioning costs, which shall be incorporated into the plan and reflected in the financial security. This net decommissioning estimate shall be recalculated at least every five years by an engineer retained by Angelina and the financial security adjusted to reflect any increase in the net decommissioning costs. (Joint Ex. 1 at 11, Condition 29; Angelina Ex. 1 at 39-40).

In addition, Angelina will prepare a written decommissioning plan in compliance with Joint Stipulation Condition 29. (Joint Ex. 1 at 11). The decommissioning plan will outline a schedule of fewer than 12 months, which is the timeline CCPC requests. (CCPC Brief at 34).

The decommissioning plan will specify responsible parties, require restoration of the Project Area, and require proper disposition of all project components. (Joint Ex. 1 at 11, Condition 29; Angelina Ex. 1 at 38-39).

The written decommissioning plan also will require that the Project Area be restored to use for cultivation, unless circumstances prevailing shortly in advance of the start of decommissioning indicate that another use is more appropriate or explicitly desired by the landowner. (Angelina Ex. 1 at 39). Restoration will include a return to the same or functionally similar preconstruction drainage patterns, including farm drainage tiles, decompaction of soil, and seeding with an appropriate, low-growing vegetative cover, such as clover, to stabilize soil, enhance soil structure, and increase soil fertility. (*Id.*)

As testified by Mr. Bonifas, Condition 28 of the Joint Stipulation “ensures that an effective plan can be put into place for the appropriate decommissioning of the Project so that the Project Area can be returned to another use after the end of the Project’s useful life.” (Angelina Ex. 11 at 3).

In addition to the plans and funding that will be in place to decommission the Project itself, Angelina is also committed to ensuring that neither construction nor decommissioning of the Project will have a negative impact on local roads. The Joint Stipulation requires that Angelina enter into a road use agreement with appropriate local authorities that includes, in part:

(a) a preconstruction survey of the conditions of the roads; (b) a post-construction survey of the condition of the roads; (c) an objective standard of repair that obligates the Applicant to restore the roads to the same or better condition as they were prior to construction; and (d) a timetable for posting of a construction road and bridge bond prior to the use or transport of heavy equipment on public roads or bridges for construction and for the posting of a decommissioning bond prior to the use or transport of heavy equipment on public roads or bridges for decommissioning.

(Joint Ex. 1 at 10, Condition 26).

This Condition will ensure that local roads do not suffer any negative impact as a result of the Project. The road use agreement has already been prepared. (TR at 122).

The Board had adequate evidence to find that the Project will be decommissioned, that financial security will be in place, and the decommissioning will have minimal impact.

7. The Board has Adequate Evidence to Find and Determine the Project will not Contribute to Noxious Weeds (CCPC Brief Section II.K)

CCPC argues that Angelina's application does not contain mitigation procedures to prevent damage to agricultural land. (CCPC Brief at 37). In so doing, CCPC attempts to shoehorn noxious weed control requirements into a general regulatory obligation to provide a "description of mitigation procedures to be utilized ... to reduce impacts to agricultural land." (*Id.*, citing OAC 4906-4-08(E)(1)(c)). Angelina has in fact provided that description, and, in so doing, has provided the Board with adequate evidence to find and determine that the Project will not contribute to noxious weeds.

Angelina is committed to the control of noxious weeds, primarily through mechanical means (as opposed to the widespread use of commercially-available herbicides). (Angelina Ex. 6 at 8; Angelina Ex. 1 at 75; TR at 106). In addition, Angelina, like others near the Project Area, will be bound by Ohio law requiring the removal or destruction of noxious weeds upon notice. R.C. 5579.05.

In addition, the Joint Stipulation requires that

The [vegetation management plan] shall also describe 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. The Applicant shall consult with the Ohio Seed Improvement Association prior to purchase of seed stock regarding the names of reputable vendors of seed stock and shall purchase seed stock used on this project from such recommended sources to the extent practicable and to the extent seed stock is available from such vendor(s).

(Joint Ex. 1 at 9, Condition 18).

Based on the Project's commitments regarding the control of noxious weeds, the Board has adequate evidence to find that the Project will not contribute to noxious or invasive weeds.

8. The Board has Adequate Evidence to Find and Determine the Project's Effects on Wildlife will be Minimal (CCPC Brief Section II.L)

CCPC asserts that Angelina failed to appropriately conduct literature and field surveys of species in the Project Area, and that Angelina did not provide data to show that no harm to wildlife will occur. (CCPC Brief at 39, 41). CCPC is incorrect. In accordance with the Board's rules, Angelina conducted a literature survey as well as field surveys of animal species in the Project Area. (Angelina Ex. 1 at Exhibit G at 4-5 to 4-7). The Ecological Assessment conducted by Cardno includes information regarding rare, threatened, and endangered species, as acknowledged by CCPC. (CCPC Brief at 40). Despite CCPC's claims to the contrary, the Ecological Assessment also includes a discussion of other species:

Common game species in southwestern Ohio include cottontail rabbit, northern bobwhite (quail), Canadian geese, gray and fox squirrels, mallard and other ducks, mourning doves, ringnecked pheasants, ruffed grouse, white-tailed deer, and wild turkey.³ Other than the agricultural crops and livestock in the area, no commercially valuable species are anticipated to be present in the Project Area.

(Angelina Ex. 1 at Exhibit G at 4-5) (footnote in original).

CCPC misleadingly argues that a literature survey must include “**all** plant and animal life within at least one-fourth mile of the Project Area” (CCPC Brief at 40) (Emphasis added). Tellingly, the word ‘all’ does not appear in the regulation cited by CCPC, which requires an applicant to: “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.”

³ www.dnr.state.oh.us/home/wild_resourcessubhomepage/researchandsurveys/wildlifepopulationstatuslanding

Ohio Adm.Code 4906-4-08(B)(1)(c). Reading this regulation as CCPC does (requiring a literature survey to identify **all** plant and animal life) would render the second sentence superfluous. Language in a regulation “must be construed as a whole and given such interpretation as will give effect to every word and clause in it. No part should be treated as superfluous unless that is manifestly required, and the court should avoid that construction which renders a provision meaningless or inoperative.” *D.A.B.E., Inc. v. Toledo-Lucas Cty. Bd. of Health*, 96 Ohio St.3d 250, 2002-Ohio-4172, ¶ 26, 773 N.E.2d 536.

CCPC also makes the spurious allegation that “Angelina also failed to conduct the required field survey for animal species in accordance with OAC 4906-4-08(B)(1)(d)” and that “[t]he Angelina representations on Pages 69 and 71 of the Application that it conducted these field surveys are false.” (CCPC Brief at 40). A review of the Ecological Assessment belies the inaccuracy of CCPC’s claims.

The field studies conducted by Cardno included “[h]abitat observations and sensitive species assessment.” (Angelina Ex. 1 at Exhibit G at 1-1). In addition, the Ecological Assessment specifically notes that “[w]ildlife observations during the field surveys were limited to common species in agricultural areas, including white tailed deer (*Odocoileus virginianus*) and gray squirrels (*Sciurus carolinensis*).” (*Id.* at Exhibit G at 6-3). The report goes on to state that:

“Visual reconnaissance surveys ... did not observe any [rare, threatened, or endangered, or “RTE”] species. The modification of the majority of available habitat has likely degraded the quality and limited potential RTE habitat. ... **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.**”

(*Id.*) (emphasis added).

Thus, during the field surveys, Angelina was making observations of all wildlife, not just RTE species. Despite the lack of RTE species observations, as Mr. Rupprecht indicated in his testimony, “Angelina Solar has prioritized avoidance measures for sensitive habitats [and] significant impacts to these habitats are not anticipated.” (Angelina Ex. 13 at 4). In addition, the Joint Stipulation requires Angelina to:

adhere to seasonal cutting dates of October 1 through March 31 for the removal of trees three inches or greater in diameter to avoid impacts to Indiana bats and northern long-eared bats, unless coordination with the Ohio Department of Natural Resources (ODNR) and the U.S. Fish and Wildlife Service (USFWS) allows a different course of action.

(Joint Ex. 1 at 9, Condition 19).

Based on the literature review and field surveys described in the Application, as well as Angelina’s commitments in the Joint Stipulation, the Board has adequate evidence to find that the Project’s impact on RTE species and other wildlife will be minimal.

9. The Board has Adequate Evidence to Find and Determine that the Project’s Effects on Nearby Crops and Livestock will be Minimal (CCPC Brief Section II.M)

CCPC argues that Angelina failed to evaluate the Project’s impacts on wildlife and nearby crops and livestock, but in doing so totally ignores large segments of the testimony of Angelina expert witness Ryan Rupprecht, as well as sections of the Application discussing the lack of impact on wildlife. (CCPC Brief at 41-42). Further, in contrast to CCPC’s demands, post-construction monitoring of wildlife impact (which is not necessarily required by OAC 4906-4-08(B)(3)(c)) is not required for the Project, **because there will be a minimal impact on wildlife.**

Specifically, the Application states that:

“The Project would not significantly impact wildlife or wildlife habitat. Information on the existing wildlife in the Project Area was obtained from a variety of sources, including observations during site surveys, and publicly

available data from Federal and State agencies. Wildlife within the Project Area could potentially utilize the site habitat for foraging, migratory stopover, breeding, and/or shelter. Based on the current land use, species present in the Project vicinity are primarily associated with agricultural fields, pasture grasslands, isolated wooded lots, and wetland areas. Typical wildlife species observed during the field delineations included evidence of white-tailed deer and common woodland and grassland songbirds.

Typical construction-related impacts to wildlife include incidental injury and mortality of juvenile and/or slow moving animals (e.g., salamanders, turtles, etc.) due to construction activity and vehicular movement; construction-related silt and sedimentation impacts on aquatic organisms; habitat disturbance/loss associated with clearing and earthmoving activities; and displacement of wildlife due to increased noise and human activities. However, **the Project has been sited to avoid and/or minimize such impacts. The Project has been designed locate the majority of infrastructure within active agricultural land, which only provides habitat for a limited number of wildlife species. The few birds and mammals that may forage within these fields should be able to vacate areas that are being disturbed by construction. On a landscape scale, there is abundant availability of similar agricultural fields within the Project Area and beyond.**

(Angelina Ex. 1 at Exhibit G at 7-5) (emphasis added).

In addition, Mr. Rupprecht testified, both in written direct testimony and at hearing, that the Project will have minimal if any impact with respect to the exclusion of wildlife from the Project Area. CCPC evidently has no meaningful response to Mr. Rupprecht's testimony in which he describes how a Cardno team determined that deer in the area surrounding the Project Area would increase by less than 5%, or 0.01 deer per acre, as a result of construction of the Project, and assuming that all deer are excluded from the Project Area. (Angelina Ex. 13 at 2, 7).

Mr. Rupprecht testified that even though Cardno used deer population as the basis for its less than 5% estimate, other wildlife would likely have the same reaction as deer to the construction of the Project, and thus the conclusion could be applied to other terrestrial species. (TR at 231). Thus, because the Project Area is composed of low quality wildlife habitat, the actual increase in wildlife that is displaced into the surrounding area will be minimal, despite the fact that the Project Area is largely surrounded by similar habitat.

CCPC relies on the testimony of Marja Brandly and Rachael Vonderhaar to attempt to argue that the displacement of wildlife will be harmful to local citizens. (CCPC Brief at 41-42). Nothing in Ms. Brandly or Ms. Vonderhaar's testimony, or in the remainder of the record, actually support CCPC's arguments.

As an initial matter, Neither Ms. Brandly nor Ms. Vonderhaar are qualified to offer opinion on the impact of the Project on wildlife. Ms. Brandly's primary residence, the residence she uses for federal tax purposes, is in Dayton. (TR at 424, 429). Her other property is located over ¼ mile from closest possible solar panels. (Id. at 425). Ms. Vonderhaar has no training in biology, no training in environmental science, has no degree after high school, is not testifying as an expert, and has never worked in the solar industry. (TR at 355).

Despite this, Ms. Vonderhaar provided testimony claiming that deer will be packed closer together, thereby easing the spread of disease, including diseases that affect both deer and cattle. (CCPC Ex. 2 at 9). Ms. Vonderhaar also testified regarding a twenty-five year old incident in which coyotes killed calves at another farm. (Id. At 8). Ms. Brandly testified only that “[w]e **are concerned**” that deer in the Project Area would be pushed onto surrounding land. (CCPC Ex. 4 at 4) (emphasis added).

Both Ms. Vonderhaar and Ms. Brandly make a series of leaps and assumptions in their testimony that are either unsupported or flatly contradicted by the record in this case. Their speculative testimony cannot be relied on by the Board. *See In re Complaint of Buckeye Energy Brokers, Inc.*, Case No. 10-0693-GE-CSS, Entry on Rehearing, February 23, 2012 at ¶ 40 (“The Commission must rely squarely on the evidence presented in this case and not on speculation or [conjecture].”)

There is no evidence that coyotes' range will be meaningfully reduced, moreover, there is no evidence that coyotes will actually congregate near a farm, or that they will attack any animal (or calves) more frequently as a result of the Project. A coyote attack, which occurred over twenty-five years ago at another location, has no bearing on the impact that the Project will have. There is no actual evidence that deer will be "packed" closer together, much less that being in closer proximity will make the spread of disease easier. Finally, there is no evidence, either in Ms. Vonderhaar's testimony, Ms. Brandly's testimony, or otherwise, that the increased deer density (if it were to occur) would lead to increased infection in cattle. Simply stating that deer and cattle have diseases in common does not lend itself to this leap in logic.

Overall, as Mr. Rupprecht summarized in his testimony,

"the Angelina Solar Project will have limited environmental impacts. The Project is proposed to be primarily built on land that has already been disturbed seasonally/annually for agriculture. The Project's most significant impact will come from the conversion of land used for agriculture to land used for the solar panel arrays. Angelina Solar has designed the Project to avoid and minimize impacts to wetlands, waterbodies, woodlots, and aquatic and terrestrial wildlife species where possible."

(Angelina Ex. 13 at 8).

Based on the information in the Application, as well as other evidence, including Mr. Rupprecht's testimony, the Board has sufficient evidence to find and determine that the Project's effects on crops and livestock will be minimal.

10. The Board has Adequate Evidence to Find and Determine that the Project will Comply with Ohio's Solid Waste Requirements at R.C. Chapter 3734 (CCPC Brief Section II.P)

CCPC argues that Angelina failed to estimate the amount of "debris and solid waste" generated by the Project, or its destination of disposal. (CCPC Brief at 58). As an initial matter, R.C. 4906.10(A)(5) requires an applicant comply with R.C. Chapter 3734, which is Ohio's solid waste statute. The Board's rule, cited by CCPC, refers to compliance with Ohio's **solid waste**

regulations. (CCPC Brief at 57, citing Ohio Adm.Code 4906-4-07(D)). CCPC would have the Board adopt a tortured reading of Ohio Adm.Code 4906-4-07(D)(2)(a), arguing that the use of the phrase “debris and other solid waste” somehow should be read to elide the word ‘other,’ and is really meant to be “[construction and demolition] debris and [] solid waste.” This is patently incorrect.

Demolition debris, like that resulting from the demolition of a house, is not regulated as solid waste under R.C. Chapter 3734, nor under any solid waste regulations. Demolition debris is regulated under a completely different chapter of the Ohio Revised Code, Chapter 3714. R.C. 3714.01 expansively defines construction and demolition debris to mean “those materials resulting from the alteration, construction, destruction, rehabilitation, or repair of any physical structure that is built by humans, including, without limitation, houses, buildings, industrial or commercial facilities, or roadways.” Angelina is not required to show compliance with R.C. Chapter 3714 for the Board to issue a certificate. This alone is fatal to this portion of CCPC’s argument.

In addition, as noted by Mr. Herling, any demolition debris generated by construction of the Project would be minor, limited to a few barns and a small house. (TR at 110). These structures would only be removed in consultation with those landowners who are participating in the Project Area. (Angelina Ex. 1 at 78).

In the Application, Angelina did estimate the amount of solid waste that would be generated, described the proposed disposal method, and provided evidence that the Project will comply with R.C. Chapter 3734. During construction, some solid waste will be generated, but **it will be minimal.** (Angelina Ex. 1 at 49). Primarily, this may include package-related materials, such as crates, nails, boxes, containers, and packing materials, damaged or otherwise unusable

parts or materials, and occasional litter and miscellaneous debris generated by workers. (*Id.*) This waste, to the extent it does not meet the definition of construction and demolition debris, is regulated under R.C. Chapter 3734. Solid waste that cannot be re-used or recycled will be disposed of in a municipal landfill. (Angelina Ex. 1 at 49).

During operation, only exceedingly small amounts of waste will be generated, which will be of the same general nature as the waste generated during construction. (Angelina Ex. 1 at 50). No licenses or permits will be required for waste generation, storage, treatment, transportation and disposal. (*Id.* at 50-51).

The record in this case establishes that:

1. Solid waste generated during construction and operation will be minimal.
2. Any solid waste generated will be disposed of in a municipal landfill.
3. As estimate of demolition debris is not required by the Board's rules or statute, but any such debris generated by the Project will be minor.

Thus, based on the record, the Board may disregard CCPC's arguments and conclude that the Project will comply with all solid waste disposal requirements.

11. The Board has Adequate Evidence to Find and Determine that the Project will have a Minimal Impact on Traffic Near the Project Area (CCPC Brief Section II.Q)

CCPC claims that "the Application does not explain how the [transportation] problem will be addressed. The Application and Stipulation do not explain how Angelina will protect the farmers' access to the public roads during planting and harvesting seasons." (CCPC Brief at 60). CCPC's concerns are unfounded and contradicted by evidence in the record.

In the Application, Angelina committed to work with the Preble County Engineer, the Trustees for the impacted townships, and ODOT to ensure that any impacts to road surface conditions and traffic flow are accounted for and rectified. (Angelina Ex. 1 at 36). Where

possible, deliveries on single lane roads to the Project will be limited despite low traffic volumes in and around the Project Area. (Id.)

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

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

(Angelina Ex. 10 at 3-4).

In addition to the completed Route Evaluation Study, Angelina intends to implement a traffic management plan, as required by Joint Stipulation Conditions 25 and 26. (Joint Ex. 1 at 10). Mr. Bonifas testified as to how the traffic management plan would handle movement of oversize vehicles:

“an oversize load would need to get a permit, through ODOT, to transport that load and that permit would require there to be a route evaluated for that, a specified route. The oversize loads, depending on the size, would need to have escort vehicles and potentially other means of traffic control like flagging. **So if an oversize load, for the Project, were to encounter a piece of farm equipment at the same time, that should be avoided by the traffic plan, the escort vehicle, and the flagging.**

* * *

when they're moving an oversize load down the road, they're going to have a flagger go ahead and make sure the road is clear and they'll go to the next intersection and they'll hold traffic up until that vehicle gets to that point and then they'll leapfrog to the next intersection.”

(TR at 167) (emphasis added).

Mr. Bonifas acknowledged that even with the traffic management plan, construction of the Project may result in delays for other traffic on the road, but indicated that “it would typically be a very short duration. It's just the time to move the truck down the road.” (Id. at 167-168).

Traffic, to the extent it will be a “problem,” will be addressed through coordination with local officials and the implementation of a traffic Management Plan, as described in the

Application and Joint Stipulation. The Board has sufficient evidence to find that the Project's impact on traffic will be minimal.

D. The Board Can Appropriately Delegate its Authority to Staff for the Post-Certificate Issuance Approval of Certain Plans

It is well-established in Ohio law that the Board can delegate responsibility for the fleshing out of certain certificate conditions to Staff. Yet CCPC devotes approximately two pages in its brief to a recitation of a dissent from a Supreme Court of Ohio case, to claim that the Board should not approve of the Joint Stipulation, because it allows “a multitude of post-certificate plans” to be submitted to Staff following the issuance of the Certificate. (CCPC Brief at 51-55, citing dissenting opinion *In re Application of Buckeye Wind, L.L.C.*, 131 Ohio St.3d 449, 2012-Ohio-878). In so doing, CCPC repeats arguments made and rejected by the Board and the Supreme Court of Ohio in previous renewable generation cases.

1. Supreme Court and Board Precedent Endorses for the Submission of Plans Post-Certificate Issuance

As the Court concluded in *Buckeye Wind*, “the board did not improperly delegate its responsibility to grant or deny a provisional certificate when it allowed for further fleshing out of certain conditions of the certificate.” *Buckeye Wind* at ¶ 18. Specifically, in the *Buckeye Wind* certificate, conditions in the certificate required the applicant to submit to the Board's staff at various times after the issuance of the certificate:

- A final equipment delivery route and transportation routing plan
- One set of detailed drawings for the proposed project so that the staff can confirm that the final project design is in compliance with the terms of the certificate
- A stream crossing plan
- A detailed frac-out contingency plan
- A final electric collection system plan

- A tree clearing plan
- A final access plan
- A fire protection and medical emergency plan
- An avian and bat mortality survey plan
- A Phase I cultural resources survey program
- An architectural survey work program
- A screening plan for one specific property
- A determination of the probable hydrologic consequences of the decommissioning and reclamation operations
- A study identifying any Prime Farmlands
- Engineering techniques proposed to be used in decommissioning and reclamation and a description of the major equipment

In re Buckeye Wind, Case No. 08-0666-EL-BGN, Opinion, Order and Certificate, March 22, 2010, at 82-96.

These post-certificate plans and information to be submitted go well beyond the mere “white or gray screws” decisions that CCPC implies the *Buckeye Wind* decision was limited to (CCPC at 53). In addition, in all certificates issued to date to solar projects in Ohio, the Board has consistently allowed for the submission of a multitude of plans and information after the issuance of the certificate, as detailed in the table on the following pages:

CONDITIONS FOR SUBMISSION OF POST-CERTIFICATE PLANS IN ISSUED SOLAR GENERATING FACILITY CERTIFICATES

Post-Certificate⁴ Plan or Submission⁵	Angelina Solar I, LLC (based on conditions in Joint Stipulation)⁶	Willowbrook Solar I, LLC, Case No. 18-1024-EL-BGN	Hecate Energy Highland, LLC, Case No. 18-1334- EL-BGN	Hardin Solar Energy LLC and Hardin Solar Energy II LLC, Case Nos. 17-0773- EL-BGN and 18- 1360-EL-BGN	Hillcrest Solar I, LLC, Case No. 17- 1152-EL-BGN	Vinton Solar Energy LLC, Case No. 17-0774-EL- BGN
Engineering Drawings of Final Project Design	X (Condition3)	X	X	X	X	X
Any Changes to Project Layout After Submission of Engineering Drawings	X (Condition4)	X	X	X	X	X
Phase I Cultural Resources Survey Program	X (Condition9)	X	X	X	X	X
Modification or Mitigation Plan for Avoiding Cultural Resources	X (Condition9)	X	X	X	X	X
Landscape and Lighting Plan	X (Condition11)	X	X	X	X	X
Public Information Program	X (Condition12)	X	X	X	X	X

⁴ Certificates issued to other solar projects: *In re Willowbrook Solar I, LLC*, Case No. 18-1024-EL-BGN, Opinion, Order and Certificate, April 4, 2019. *In re Hecate Energy Highland, LLC*, Case No. 18-1334-EL-BGN, Opinion, Order and Certificate, May 16, 2019. *In re Hardin Solar Energy LLC*, Case No. 17-0773-EL-BGN, Opinion, Order and Certificate, February 15, 2018. *In re Hardin Solar Energy II LLC*, Case No. 18-1360-EL-BGN, Opinion, Order and Certificate, May 16, 2019. *In re Hillcrest Solar I, LLC*, Case No. 17-1152-EL-BGN, Opinion, Order and Certificate, February 15, 2018. *In re Vinton Solar Energy LLC*, Case No. 17-0774-EL-BGN, Opinion, Order and Certificate, September 20, 2018.

⁵ An ‘X’ denotes that the certificate allows a submission is to be made post-certificate issuance.

⁶ CCPC asserts that the Joint Stipulation allows fourteen plans to be submitted post-certificate issuance. (CCPC Brief at 64). Angelina does not agree with CCPC’s description of any of these plans as “major,” or in some cases as “plans,” but identifies them here to show that the Board consistently allows such documents to be submitted after issuance of a certificate.

CONDITIONS FOR SUBMISSION OF POST-CERTIFICATE PLANS IN ISSUED SOLAR GENERATING FACILITY CERTIFICATES

Post-Certificate⁴ Plan or Submission⁵	Angelina Solar I, LLC (based on conditions in Joint Stipulation)⁶	Willowbrook Solar I, LLC, Case No. 18-1024-EL-BGN	Hecate Energy Highland, LLC, Case No. 18-1334- EL-BGN	Hardin Solar Energy LLC and Hardin Solar Energy II LLC, Case Nos. 17-0773- EL-BGN and 18- 1360-EL-BGN	Hillcrest Solar I, LLC, Case No. 17- 1152-EL-BGN	Vinton Solar Energy LLC, Case No. 17-0774-EL- BGN
Complaint Resolution Process	X (Condition13)	X	X		X	
Stormwater Pollution Prevention Plan	X (Condition16)					
Vegetation Management Plan	X (Condition18)	X	X	X	X	X
Construction Access Plan	X (Condition22)	X	X		X	
Final Traffic Plan	X (Condition25)					
Transportation Management Plan	X (Condition26)	X ⁷	X	X	X ⁸	X
Road Use Agreements	X (Condition26)	X	X		X	
Comprehensive Decommissioning Plan	X (Condition29)					
Full Detailed Geotechnical Exploration and Evaluation						X
Architectural Survey Work Program					X	

⁷ The Certificate identifies both a Final Traffic Plan and “Final Delivery Route Plan.”

⁸ The Certificate identifies both a Final Traffic Plan and “Final Delivery Route Plan.”

Finally, the plans to be submitted by Angelina following the issuance of the Certificate are still subject to review by Staff. Many of the conditions (9, 11, 12, 13, 14, 18, 25, 26, and 29) expressly require Staff to either “review and approve” or “confirm that [the plan] complies” with the relevant condition. (Joint Ex. 1 at 7-11).

Because the plans that are proposed to be submitted to Staff post-certificate issuance in this case are no different from plans allowed to be submitted post-issuance in other Board decisions, and as affirmed by the Supreme Court of Ohio, CCPC has no basis for arguing against the appropriateness of post-certificate submittals.

2. CCPC’s Procedural Due Process Rights Have Not Been Harmed

In making its argument that it has been deprived of its procedural due process rights, CCPC replicates arguments made by the citizen-intervenors, Union Neighbors United (“UNU”), in the *Buckeye Wind* case. (Compare CCPC Brief at 65-66 to Argument on Tenth Proposition of Law, Appellant’s Merit Brief, pp. 46-48).⁹ Just as the Court in *Buckeye Wind* rejected UNU’s argument, so should the Board reject CCPC’s argument here.

The cases cited by CCPC (and UNU) are simply not applicable and reveal a misunderstanding of the process that the General Assembly has approved for cases before the Board. CCPC cites *Mathews v. Eldridge* (1976), 424 U.S. 319 along with other cases for the proposition that administrative proceedings must comport with due process. (CCPC Brief at 54). As an initial point, the holdings in these cases are not controlling on the matter at bar because all found no due process violation. *Mathews v. Eldridge*, supra at 349; *LTV Steel Co. v. Indus. Comm.* (2000), 140 Ohio App. 3d 680, 692-693; and *Egbert v. Ohio Department of Agriculture*

⁹ Available here: http://supremecourt.ohio.gov/pdf_viewer/pdf_viewer.aspx?pdf=676280.pdf

(2008), 2008-Ohio-5309; ¶ 39. CCPC also cites to *Seitz v. All Creatures Animal Hosp.* (Nov. 15, 1985), Ashtabula App. No. 1192, LEXIS 9306.

However, the *Seitz* case involved the conduct of a hearing referee who considered post-hearing statements as evidence made against the applicant's interest without notice or knowledge of the appellant and without any opportunity to confront or cross-examine the witnesses who made the statements against her. (*Id.* at *2). In contrast, Angelina has provided the Board with sufficient evidence to make the required determinations under R.C. 4906.10(A) and pursuant to its statutory authority, impose terms and conditions in the Certificate.

The fact that Angelina will submit information to the Board and/or its Staff as a condition of a future certificate does not rise to the level of a governmental decision warranting the protections of due-process. *Mathews v. Eldridge*, supra at 332 (“[p]rocedural due process imposes constraints on governmental decisions which deprive individuals of ‘liberty’ or ‘property’ interests within the meaning of the Due Process Clause of the Fifth or Fourteenth Amendment.”) Moreover, unlike the circumstances in the *Seitz* case, the Board has already held an evidentiary hearing and will issue its decision on the statutory criteria under R.C. 4906.10(A). Angelina's submission of information, as required by the Joint Stipulation, is intended to ensure compliance with the future certificate. This is not the equivalent of a governmental decision entitling CCPC to the right of an evidentiary hearing.

In making its due process argument, CCPC ignores the process set up by the General Assembly and certain statutory principles that the Board must follow. First, R.C. 4906.04 provides, in part, that “[n]o person shall commence to construct a major utility facility in this State without first having obtained a certificate for the facility.” Because an applicant cannot construct a facility without a certificate, this means that the Board must evaluate proposed

projects, not those already built. As the Board's Staff recognized in its initial brief, the Board must evaluate the criteria set forth in R.C. 4906.10 with respect to the estimated impacts of such proposed projects and may impose any terms and conditions it believes necessary.

Second, applying the three-part test in *Mathews* demonstrates the constitutional adequacy of the Board's administrative proceeding. The "private interest at stake" was already considered by the Board in the evidentiary hearing at which CCPC (and other intervenors) had the opportunity to cross-examine Staff and Angelina witnesses. The post-certificate information is designed to protect that private interest by making sure that the Applicant has complied with the conditions that will be imposed. With respect to the risk of erroneous deprivation of that interest and the probable value of additional procedural safeguards, there is no risk of an erroneous deprivation.

With respect to the government's interest, requiring an evidentiary hearing on information submitted in compliance with the Certificate Conditions would impose significant fiscal and administrative burdens on the Board and its Staff far outweigh any countervailing benefits. It should also be noted that CCPC is fully entitled to follow the formal complaint process already provided in R.C. 4906.97 and 4906.98 and OAC Chapter 4906-7 if any complaint is not resolved by the informal complaint process recommended in the Joint Stipulation. (Joint Ex. 1 at 8, Condition 13).

Finally, CCPC has participated fully in these proceedings. It has presented its own testimony and witnesses, and has cross-examined Angelina and Staff witnesses. It has had full opportunity to raise its concerns regarding the Project's impacts. CCPC has received all of the process that it is due. CCPC has no basis for claiming that conditions calling for information submittals post issuance of a certificate rise to the level of a due process violation.

3. CCPC can submit a Complaint to Angelina and/or the Board if any Issues Arise Post-certificate Issuance

CCPC attempts to make an issue of the fact that pre-construction meetings are not open to the public, and that Staff's post-certificate decision-making will be in "secrecy". (CCPC Brief at 66). The public, however, has no role to play at a pre-construction meeting. As Staff witness Andrew Conway testified: "[the preconstruction conference is] for the Applicant. The Applicant holds the conference and it's to -- for the Applicant to direct its contractors and subcontractors to make sure that they follow the -- are aware of the terms of the Certificate and abide by that Certificate." (TR at 421). Thus, public participation in the pre-construction conference is not necessary to achieve the goals of the meeting.

Moreover, Staff and not CCPC is obligated to continue to review the Project and many plans submitted post-certificate issuance to ensure that the Project complies with the conditions of the certificate. (Joint Ex. 1 at 7-11, Conditions 9, 11, 12, 13, 14, 18, 25, 26, and 29). The pre-construction conference is just another step in that process.

If any member of the public has a concern with any activity occurring under the Project's certificate, it will be able to use the complaint resolution process required under the Joint Stipulation. (Joint Ex. 1 at 8, Condition 13). Angelina is committed to:

require the general contractor hired to construct the Project to identify a person to address any complaints, concerns or comments from the public during construction. [Angelina] also will require that information be posted to provide the public with contact information to submit complaints, concerns or comments regarding construction and that prompt responses be made to any such complaints, concerns or comments (for which a response either is requested or clearly implied). Finally, [Angelina] will require the contractor to make commercially reasonable efforts to expeditiously resolve any complaints or concerns."

(Angelina Ex. 1 at 33-34).

If that does not resolve the concern, a member of the public can submit a complaint to the Board. What the public cannot do is assume the Board's and its Staff's role in ensuring certificate compliance.

E. The Joint Stipulation is in the Public Interest and does not Violate any Important Regulatory Principle or Practice

CCPC provides a cursory list of the alleged deficiencies with the Joint Stipulation, essentially restating and summarizing its arguments regarding the alleged deficiencies in the Application. (CCPC Brief at 69-71). In so doing, CCPC ignores the obvious benefits of the Joint Stipulation, and disregards statements in the Application and the record as a whole that refute each of CCPC's claims.

The Project as described in the Application, Staff Report, and testimony, meets the criteria for issuance of a Certificate under R.C. 4906.10. Thus, the Joint Stipulation, in recommending conditions on the Project, furthers the regulatory principles and practices of the Ohio Power Siting Board. As testified by Mr. Herling, the Joint Stipulation does not violate any important regulatory principle or practice. (Angelina Ex. 7 at 5). Indeed, the Joint Stipulation represents a significant achievement given the number of public entities from Preble County that signed and support the Joint Stipulation. (Joint Ex. 1 at 18-19).

The Joint Stipulation is in the public interest because, through it, a Project with substantial benefits would be constructed. These benefits include the generation of emission-free power, which will assist in the attainment of air quality goals in southwestern Ohio. (Angelina Ex. 1 at 41-42). The Project will also make payments to local government, including Preble County, Dixon and Israel Townships, and the local school district, far in excess of the property taxes currently being paid on the parcels forming the Project Area. (TR at 57). In general,

payments to local government from the Project will be a minimum of \$560,000 per year, and potentially up to \$720,000. (Angelina Ex. 6 at 6-7; TR at 129-130).

In addition to this direct financial benefit, the Project will create approximately 518 to 1,076 direct and indirect construction-related jobs with corresponding payroll of \$25.4 million to \$55.6 million. (Angelina Ex. 1 at 31; Angelina Ex. 1 at Exhibit C). For the operation phase of the Project, depending on the percentage of locally sourced content for maintenance activities, the Project will create approximately 19 to 22 direct and indirect jobs with corresponding annual payroll of approximately \$630,000 to \$1 million. (Id.) **The Project is expected to generate new economic output of approximately \$161.7 million during construction and \$1.5 million annually from operation.** (Angelina Ex. 1 at 32).

Further, as demonstrated in Section II.C, above, each claim made by CCPC regarding the Joint Stipulation (and the Project in general) is controverted by actual evidence in the record demonstrating that the Joint Stipulation is in the public interest, and does not violate any important regulatory principle or practice.

III. CONCLUSION

CCPC makes no serious effort to argue that the Project does not meet the applicable statutory standards under R.C. 4906.10(A). Instead, CCPC devotes the vast majority of its brief to making a red herring arguments that the Application submitted by Angelina does not meet all relevant regulatory requirements for an application and that the Board cannot delegate its authority to Staff to allow for the post certificate issuance submittal of certain plans. CCPC is wrong on both counts.

The Application, as previously determined by the Board, meets the requirements of OAC Chapter 4906-4 and, taking the record as a whole, the Board has been provided sufficient

evidence to make all of the findings required by R.C. 4906.10(A). Ohio law also clearly establishes that the Board can delegate responsibility for compliance with certificate conditions to Staff. Given the record in this proceeding, Angelina's application for a Certificate should be granted subject to the recommended conditions contained in the Joint Stipulation, without modification.

Respectfully submitted,

/s/ Michael J. Settineri

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CERTIFICATE OF SERVICE

The Ohio Power Siting Board's e-filing system will electronically serve notice of the filing of this document on the parties referenced in the service list of the docket card who have electronically subscribed to this case. In addition, the undersigned certifies that a courtesy copy of the foregoing document is also being served upon the persons below via electronic mail this 1st day of November 2019.

/s/ Michael J. Settineri

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ATTACHMENT A

visibility from nearby areas. In addition, collocating electrical facilities (such as the substation) with existing electrical infrastructure minimizes visual impacts.

- *Setbacks:* Appropriate setback distances should be determined based on the sensitivity of the adjacent uses. For instance, larger setbacks may be appropriate for areas adjacent to residences or public recreational areas, but smaller setbacks would be acceptable in areas adjacent to agricultural, industrial, forest, or vacant land.
- *Fencing:* Security fencing can contribute to the visual impact of solar projects sited in rural areas. However, security fencing is required for solar projects for safety and security of the public. Depending on specific codes, permitting, and safety concerns, decorative or specific vernacular fence styles in selected locations may be considered if there are specific existing styles, materials, or designs that relate to existing features in the project area. In these cases, selection of fence styles is typically based on precedent examples on adjacent properties or within the local community so that when installed, the project would better blend into the existing visual setting.
- *Screening:* Visual screening typically involves planting of vegetation intended to screen or soften views of the solar project. Common approaches to visual screening include:
 - *Pollinator-Friendly Grasses and Wildflowers:* In many agricultural areas, installation of hedges or shrubs may not be in keeping with the existing visual setting, which is typically characterized by open fields backed by occasional hedgerows or woodlots. Trees, shrubs, or tall vegetation along roadsides are often atypical in these settings. An alternative form of vegetative screening that may be appropriate in these areas is use of tall native grasses and wildflowers along selected roadsides and other fence lines to soften the appearance of the project and better integrate the project into the landscape. Regionally appropriate plantings can also provide habitat for pollinator species when planted around the periphery of the site and/or in locations on site where mowing can be restricted during the summer months. Leaving the taller plants un-mowed during the summer provides benefits to pollinators, habitat for ground nesting/feeding birds, and cover for small mammals, in addition to softening the appearance of the project. Consistent with this approach, low growing/groundcover native species can also be planted under the solar panels and between arrays.
 - *Evergreen Hedges:* Use of vegetation for mitigation can include installing a screening hedge made up of evergreen trees and shrubs along roadways and/or selected portions of the exterior fence line of the Project. This approach is effective and commonly implemented in urban and suburban settings, however, it may not be appropriate in some settings where the introduction of evergreen hedges

would be inconsistent with the native vegetation and existing visual setting. Evergreen vegetation also provides year-round screening of the Project.

- *Native Shrubs and Trees:* An alternative to evergreen hedges, which may not appear naturalized or appropriate in many settings, is use of native shrub and tree plantings along road frontages and/or selected portions of the exterior fence line of the project. This approach does not typically result in plantings that completely screen views of the project, but instead serve to soften the overall visual effect of the project and can help to better integrate the project into the surrounding landscape. Plantings should be selected based on aesthetic properties, to match with existing vegetation in the project vicinity, and the ability to grow in the specific conditions of a project area. In addition to helping to blend the project into the surrounding landscape, use of native plant species can also provide food and cover for local wildlife communities. Additionally, depending on the region, evergreen planting can be included in the native plant palette.

Mitigation concepts that have been considered for this Project are illustrated in Figure 12. Visual simulations that show potential visual mitigation treatments for the Project are shown in Figure 13.

Specific mitigation measures that have been incorporated into the Project design and/or are being considered for the Project include the following:

Equipment/Technology

- The specific materials, and the associated textures and colors, to be used in the components of the Project have not yet been determined, but will be typical of other large-scale, ground-mounted solar projects in the U.S. Racking will be largely metal, such as aluminum and galvanized steel, and will have a smooth texture and be of a grey or silver color. Panels will be comprised of the materials previously described, with the exterior layer consisting of a glass cover within a metal frame. The panels will have a relatively smooth texture and are black or another dark color.
- The Applicant holds land rights to operate the Project for up to 40 years, and the Project is expected to operate for at least that period of time. At the end of that period, Applicant would either re-power the Project with state-of-the-art PV technology, which would require the consent of the participating land owners, or remove the Project. With very few concrete foundations, the equipment less than 3 feet below grade can be easily removed and the land restored to essentially its original condition. If the participating land owners desire, the land can be returned to cultivation.
- The proposed collection lines will be buried underground to avoid visual impacts.

- Proposed substation equipment will be similar in technology, materials, appearance, and scale to existing substation, which will minimize contrast with the existing landscape.
- Other than the substation, and a few other select locations, no facilities within the Project will require night lighting, which will minimize light pollution/nighttime visual impacts.
- The proposed substation will incorporate movement sensors for the security lighting, which will minimize the amount of time that the lights are on and avoid significant off-site lighting impacts.
- All security and work related lights will be shielded, downward facing fixtures design to minimize light pollution and/or off-site lighting impacts.

Siting/Setbacks

- The Project has been sited so as to avoid or minimize visual impacts to the surrounding area. Due to the screening provided by existing woodlots and hedgerows, visibility will generally be concentrated within 0.5 miles of the Project and there is very limited visibility of the Project at distances greater than 1 mile (see Section 3.1.2 and Table 1).
- The Project is sited so that there is no visibility from any historic structure and very limited visibility from other VSRs within the study area (i.e., visibility is essentially restricted to adjacent public roads).
- The solar arrays will generally follow the existing topography of the Project Area, and will be constructed on existing grades. Only minimal grading or vegetation clearing will be required and most of the land surface within each solar field, including almost all of the area below the arrays themselves, will be planted with a robust, low-growing seed mix, consisting primarily of native grasses.
- The Project substation has been co-located with the existing College Corner Substation located off of County Road 600 (Stateline Road). This avoids the introduction of electrical infrastructure in new areas where that infrastructure could contrast with existing landscape character.
- To provide appropriate distances between the Project and the general public, the solar arrays will be designed to incorporate several minimum setbacks. These will include the following:
 1. a 25-foot setback between the perimeter fence of a solar array and the edge of pavement of any public road,
 2. a 40-foot setback between the any above-ground equipment within a solar array and the edge of pavement of any public road,
 3. a 10-foot setback between the perimeter fence of a solar array and the property line of any non-participating parcel,
 4. a 25-foot setback between any above-ground equipment within a solar array and the property line of any non-participating parcel, and

5. a 100-foot setback between any above-ground equipment within a solar array and any habitable residence located on a non-participating parcel.

Fencing

- Fencing is expected largely to be standard, 7-foot tall chain-link material.
- The use of alternative fencing such as black vinyl coated fencing, or wood post and welded wire fencing, could be implemented in selected areas in response to any specific public and/or landowner concerns, so long as these options comply with current or future codes governing electric generating facility safety and security.

Screening

- A landscape plan showing potential mitigation areas and design will be part of the final Project.
- The Applicant is considering including as a component of the landscape plan, pollinator-friendly grasses and wildflowers along selected roadsides and other fence lines to soften the appearance of the Project and better integrate the Project into the landscape (see example simulations included in Figure 13). The Applicant anticipates using a mix of native pollinator wildflowers and grasses that will be selected based on their aesthetic and environmental properties, and their ability to grow in the conditions of the Project Area. Examples of the types of seed mixes that are being considered include the Eastern Great Lakes Native Pollinator Mix and the Wet Soil Native Seed Mixes¹. These plantings would be installed in the setback space between the Project perimeter fence and the edge of road rights-of-way. The recommended seed mix would grow to an average height of 4-6 feet during the growing season. As shown in Figure 13, the introduction of the pollinator species would soften the horizontal lines created by the security fence and reduce the visual contrast resulting from the Project. In addition, leaving the taller plants un-mowed during the summer would provide ecological benefits including, pollinator benefits, and habitat for small mammals and birds. As noted previously, low growing/groundcover native species will be planted under the solar panels and between arrays to minimize the need for maintenance (mowing) while maintaining the naturalized appearance of the Project Area.
- The Applicant is considering the installation of native shrubs and trees in selected sensitive areas, such as along fence lines adjacent to residences. Use of native shrubs and trees would serve to soften the overall visual effect of the Project. The landscape planting plan would consider existing aesthetic properties, and

¹ These seed mixes are available from the Ohio Prairie Nursery (www.ohioprairienursery.com) and are representative of the types of plantings that will be considered for the Project.

would complement the existing vegetation at a given location. In addition to the screening benefits, the use of native plant species would also provide wildlife habitat benefits.

- The introduction of earthen berms (or other earthworks) would likely require material to be imported to the site, which is not being considered for this Project. Additionally, due to the relatively flat terrain in the Project area, berms can appear out of character.
- The Applicant anticipates that selecting locations for the potential placement and/or installation of plantings for visual mitigation will be determined based on review of public comments and/or concerns raised by individual landowners.

Mitigation Material Options

Fencing Options



Galvanized Chainlink



Black Vinyl Agricultural Mesh



Wooden Post Galvanized Agricultural Mesh

Plant Material Options



Native Pollinator Mix Examples



Screening Trees



Screening Shrubs

Angelina Solar Farm
Dixon and Israel Townships, Preble County, Ohio

Figure 12: Mitigation Material Options



OPEN ROAD
RENEWABLES



- (7) As the information becomes known, the Applicant shall file in this proceeding the date on which construction will begin, the date on which construction was completed, and the date on which the facility begins commercial operation. Such filings shall be served on all intervening parties to the certification process.
- (8) Prior to the commencement of construction activities in areas that require permits or authorizations by federal or state laws and regulations, the Applicant shall obtain and comply with such permits or authorizations. The Applicant shall provide copies of permits and authorizations, including all supporting documentation, to Staff no less than seven days prior to the applicable construction activities. The Applicant shall provide a schedule of construction activities and acquisition of corresponding permits for each activity at the preconstruction conference.
- (9) Prior to construction, the Applicant shall prepare a Phase I cultural resources survey program for the project area in conjunction with Staff and the Ohio Historic Preservation Office (OHPO). If the resulting survey work discloses a find of cultural, archaeological, or architectural significance, or a site that could be eligible for inclusion on the National Register of Historic Places, then the Applicant shall submit a modification, or mitigation plan detailing how such site(s) will be avoided or impacts minimized. Any such mitigation effort, if needed, shall be developed in coordination with the OHPO and submitted to Staff for review and acceptance.
- (10) General construction activities shall be limited to the hours of 7:00 a.m. to 7:00 p.m., or until dusk when sunset occurs after 7:00 p.m. Impact pile driving shall be limited to the hours between 9:00 a.m. and 7:00 p.m. Monday through Friday; hoe ram and blasting operations, if required, shall be limited to the hours between 10:00 a.m. and 4:00 p.m., Monday through Friday. Construction activities that do not involve noise increases above ambient levels at sensitive receptors are permitted outside of daylight hours when necessary. The Applicant shall notify property owners or affected tenants within the meaning of Ohio Adm. Code 4906-3-03(B)(2) of upcoming construction activities including potential for nighttime construction.
- (11) Prior to commencement of any construction, the Applicant shall prepare a landscape and lighting plan that addresses the aesthetic and lighting impacts of the facility where an adjacent non-participating parcel contains a residence with a direct line of sight to the project area and also include a plan describing the methods to be used for fence repair. The plan shall include measures such as fencing, vegetative screening or good neighbor agreements. The Applicant shall maintain all fencing along the perimeter of the project in good repair for the term of the project and shall promptly repair any damage as needed. The Applicant shall provide the plan to Staff for review and confirmation that it complies with this condition.
- (12) At least 30 days before the preconstruction conference, the Applicant shall provide Staff with a copy of its public information program, for confirmation that it complies with this condition, that informs affected property owners and tenants of the nature of the project, and that provides specific contact information of Applicant

BEFORE THE OHIO POWER SITING BOARD

In the Matter of the Application of)	
Angelina Solar I, LLC)	
for a Certificate of Environmental)	Case No. 18-1579-EL-BGN
Compatibility and Public Need)	

SUPPLEMENTAL DIRECT TESTIMONY OF MATTHEW ROBINSON

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

A.1. My name is Matthew Robinson. I am a Visualization Project Manager at Environmental Design & Research, Landscape Architecture, Engineering & Environmental Services, D.P.C (“EDR”). My business address is 217 Montgomery Street, Suite 1000, Syracuse, New York 13202.

Q.2. On whose behalf are you offering testimony?

A.2. I am testifying on behalf of the Applicant, Angelina Solar I, LLC.

Q.3. Did you previously file direct testimony on behalf of the Applicant?

A.3. Yes, on May 3, 2019.

Q.4. What is the purpose of your supplemental testimony?

A.4. To address Condition 3 in the Joint Stipulation filed on June 14, 2019.

Q.5. Have you reviewed the Joint Stipulation?

A.5. Yes.

Q.6. Do you support Condition 3 in the Joint Stipulation?

A.6. Yes. The Joint Stipulation revised Staff’s recommended Condition 3 so that project setbacks from adjacent public roads are measured from the edge of the road rights-of-way rather than the edge of the travel surface of the roadways. This will result in larger setbacks, because the right-of-way is wider than the actual road surface.

Q.7. How will Condition 3 in the Joint Stipulation affect the visual impact of the Project?

A.7. Adding additional distance between the above-ground components of the Project and a viewer decreases the perceived scale of the Project and improves the screening effectiveness of any roadside vegetation. Adding additional setback distance also improves the options for additional screening that could be provided as visual mitigation by the Applicant, because it allows for the use of taller growing vegetation (without adverse shadow effects) and increases the available vegetation choice that can be used to better blend the Project into the existing landscape.

Q.8. How does the additional distance make screening or mitigation more effective?

A.8. The goal of visual screening or mitigation is not to prevent a project from being seen entirely. The use of an opaque “green wall” approach is generally not desirable or effective, because it tends to contrast with the existing visual character of the surrounding area and actually draws viewer attention because it looks out of place. Instead, the goal is to soften the appearance of the project so that it blends more effectively into the background. At EDR, we have developed various visual screening modules including those that provide, as appropriate: 1) roadside pollinator habitat by utilizing native seed, 2) vertical softening of views through clustered arrangements of native shrubs and trees, or 3) adjacent resource screening that creates a hedgerow of mixed deciduous and evergreen native material, depending on the character and sensitivity of the adjacent land use. Additional setback distance allows more space install these modules and gives the vegetation more room to grow and become an established component of the landscape thereby improving screening. Increased distance between the plantings and the project allows shorter vegetation to provide more effective screening.

ATTACHMENT B

“(1) The applicant shall describe the applicant's program for public interaction during the siting, construction, and operation of the proposed facility. This description shall include detailed information regarding the applicant's public information and complaint resolution programs as well as how the applicant will notify affected property owners and tenants about these programs at least seven days prior to the start of construction.”

Response:

[4906-4-06(F)(1)]

Applicant's interaction with the public about the siting of the Project, which continues, has consisted primarily of one-on-one outreach to individual property owners near the Project Area. As part of determining the best location for the Project, Applicant communicated with scores of property owners in the study area. Applicant also conferred with a number of local officials as part of its due diligence in making the original siting decision.

With regard to the anticipated construction of the Project, Applicant presented at the public informational meeting a map showing the location of the Project as well as the location of each parcel of property either (1) within the Project Area; or (2) contiguous to the Project Area. This map was of sufficient scale to enable affected property owners and tenants to identify their property in relation to the Project. Applicant solicited written comments on the Project at the public information meeting but received only verbal comments and questions regarding construction methods and impacts, viewshed, and wildlife. Applicant discusses construction impacts in Section III.B.2 “Construction and Reclamation Methods”, viewshed concerns in Section VIII.D.4 “Visual Impacts” and **Exhibit I**, and wildlife concerns in Section VIII.B “Ecological Resources” and **Exhibit G**.

Applicant will require the general contractor hired to construct the Project to identify a person to address any complaints, concerns or comments from the public during construction. Applicant also will require that information be posted to provide the public with contact information to submit complaints, concerns or comments regarding construction and that prompt responses be made to any such complaints, concerns or comments (for which a response either is requested or clearly implied). Finally, Applicant

will require the contractor to make commercially reasonable efforts to expeditiously resolve any complaints or concerns.

No later than seven (7) days prior to the start of construction, Applicant will mail a notice of construction to the following persons: (1) affected property owners and tenants who were provided notice of the public information meeting; (2) attendees of the public information meeting who requested updates regarding the Project and provided a mailing address for that purpose; and (3) any other person who requests updates regarding the Project and provides a mailing address for that purpose. The notice of construction will summarize upcoming construction activities, describe where construction will occur, including the main routes of equipment delivery, and provide the name and contact information of a Project representative to whom any complaints, concerns or comments may be addressed.

Applicant will require that the company retained to operate the Project post its contact information at or near the entrance of each solar field and the Substation. Applicant also will require that information be posted to provide the public with contact information to submit complaints, concerns or comments regarding operation and that a prompt response be made to any for which a response either is requested or clearly implied. The operator also will be required to make commercially reasonable efforts to expeditiously resolve any complaints or concerns.

2. INSURANCE

OPSB Application Requirement [4906-4-06(F)(2)]:

“(2) The applicant shall describe any insurance or other corporate programs for providing liability compensation for damages to the public resulting from construction, operation, or decommissioning of the proposed facility.”

Response:

[4906-4-06(F)(2)]

Applicant will maintain a comprehensive package of liability insurance to protect the public in connection with the Project. Throughout the construction, operation and

personnel who are familiar with the project, the proposed timeframe for project construction, and a schedule for restoration activities.

- (13) At least 30 days before the preconstruction conference, the Applicant shall provide Staff with a copy of a complaint resolution process, for confirmation that it complies with this condition, to address potential public complaints resulting from facility construction and operation. The resolution process must describe how the public can contact the facility and how the facility would contact anyone issuing a complaint.
- (14) At least seven days prior to the start of facility operation, the Applicant shall notify via mail affected property owners and tenants who were provided notice of the public informational meeting, as well as anyone who has requested updates regarding the project, and all intervening parties to the certification process. This notice will provide information about the start of operation and describe how the public can contact the facility.
- (15) During the construction and operation of the facility, the Applicant shall submit to Staff a complaint summary report by the fifteenth day of April, July, October, and January of each year for the first five years of operation. The report should include a list of all complaints received through the Applicant's complaint resolution process, a description of the actions taken toward a resolution of each complaint, and a status update if the complaint has yet to be resolved.
- (16) The Applicant shall avoid, where possible, or minimize to the extent practicable, any damage to functioning surface and subsurface field tile drainage systems and soils resulting from the construction, operation, and/or maintenance of the facility in agricultural areas, whether such drainage systems are publicly or privately maintained. Benchmark conditions of surface drainage systems shall be documented prior to construction, including the location of grassed waterways. Any tile installation or repairs shall be performed in accordance with applicable provisions of Standard Practice for Subsurface Installation of Corrugated Polyethylene Pipe for Agricultural Drainage or Water Table Control, ASTM F499-02 (2008), to the extent practicable. If uncertainty arises concerning the proper procedures for tile repair, Applicant may consult with the local Soil & Water Conservation District or a USDA Natural Resources Conservation Service representative for privately maintained tile, and shall consult with the County Engineer for tile located in a county maintenance/repair ditch, as delineated in Document A, attached hereto. Damaged field tile systems shall be promptly repaired no later than 30 days after such damage is discovered, and be returned to at least original conditions or their modern equivalent at the Applicant's expense. When repairing tiles in a county maintenance/repair ditch, the Applicant shall give reasonable notice of such repairs to the County Engineer and Staff. The County Engineer or his/her representative shall have the right to visually inspect and approve the repair work performed prior to backfill. If the County Engineer does not approve the repair work in a timely manner, Staff shall have the right to visually inspect and approve the repair work performed prior to backfill. If the opinion of

ATTACHMENT C

[4906-4-03(B)(2)(a) & (e)-(j)]

The Project will include one or more of the components listed in subsections (a) and (e) through (j) above.

The method that will be used to construct the Project will be similar to that generally used in the U.S. to construct similar, large-scale, ground-mounted solar facilities generating wholesale power. The primary steps will be the following: (1) securing of the perimeter of each of the areas in which construction will occur; (2) installation of storm-water and erosion management controls; (3) clearing vegetation; (4) minor grading, if any; (5) construction of roads; and (6) installation of equipment (racking, solar panels, collection lines, inverters, pyranometers, the Substation and fencing).

Other than the Substation, and because the solar panels will be affixed to racking largely using hand tools, the major equipment used to construct the Project will include bulldozers and dump trucks (primarily to build roads), pile drivers (primarily to install piles), trenchers (primarily to lay the buried portions of the collection lines), and possibly a directional drilling system (to place portions of the collection lines under water bodies). A more detailed description of the steps comprising construction is provided below in connection with the schedule for the Project.

For several reasons, the land within the Project Area that will host the equipment will require relatively little work to prepare it for construction. First, relatively little land will need to be cleared of vegetation. Most of the Project Area consists of previously disturbed land that has been in active cultivation for many years. Also, the design of the solar fields will obviate the need to remove the vast majority of trees in the Project Area, particularly those associated with wetlands or containing potential wildlife habitat. Finally, only minimal grading will be required because the Project Area already is extremely level. Specific methods to be used to remove trees and vegetation and perform minimal grading have not been determined but will be standard, accepted methods for the commercial construction industry. The vast majority of the land surface within each solar field, including almost all of the area below the arrays themselves, will be planted with a robust, low-growing seed mix, primarily native grasses and other low-maintenance varieties.

[4906-4-08(B)(3)(a)]

The Project's operation will not have any significant adverse impacts to ecological resources, including on the undeveloped areas previously identified or streams, wetlands, and vegetation. There will be some minor permanent impacts to a wetland and ditches as a result of the Project, and these impacts are listed in Appendix E of Exhibit G. The Project will be a highly passive operation; equipment will have few moving parts, all of which will be fully enclosed. The Project will consume essentially no water (only for occasional cleaning of panels) and its only fuel will be sunlight. It will generate no stationary source air pollution, no wastewater and little solid waste.

Only a few operational personnel will be needed for the Project, and they will be present at any given location in the Project only occasionally. Personnel will perform essentially the following basic tasks: (1) inspection, maintenance, repair and replacement of equipment; (2) occasional cleaning of soiling and removal of snow, from solar panels; (3) regular mowing and associated maintenance of vegetative ground cover; (4) periodic security checks; (5) emergency response; and (6) community relations. On most days, at any particular location at the Project, no operating personnel will be present.

[4906-4-08(B)(3)(b)]

The Project's operation will be highly passive; it will not entail activities that may adversely affect the environment, including streams, wetlands and vegetation. After construction, the Project will have essentially no impact on mature trees, wetland vegetation or woody vegetation in riparian areas. Operating personnel may use commercially-available herbicides for the control of noxious weeds and as needed for the proper maintenance of the vegetative cover. Over the life of the Project, however, this likely will be far less than used for farming. Because the solar panels will be constructed only in cleared, dry, upland areas, the occasional use of herbicides will not adversely affect mature trees, streams, wetland vegetation, and riparian areas.

The final design of the Project also will include pollinator-friendly, native plantings in selected locations along the perimeter. These features not only will enhance the

3 Agency Consultation

3.1 U.S. Fish and Wildlife Service

On behalf of Angelina Solar, Cardno submitted an Environmental Review request to the FWS on October 3, 2018. No FWS response has been received to date. Based on similar projects within this Project Area, Open Road Renewables, LLC (ORR) recognizes that there is a potential for the presence of the federally endangered Indiana Bat (*myotis sodalis*) and the federally threatened Northern Long-eared Bat (*myotis septentrionalis*).

Due to the minimal amount of forest clearing (0.07 acre) proposed by Angelina Solar, it is expected that bat surveys will not be necessary. Angelina Solar has minimized the tree clearing, and is committed to observing seasonal restrictions on tree clearing to protect Indiana bat (e.g., cutting trees only between October and March), or as conditions specify.

A desktop review of the FWS Information for Planning and Conservation (IPaC) database is discussed in Section 4.4.3.

3.2 Ohio Department of Natural Resources

On behalf of Angelina Solar, Cardno submitted an Environmental Review request to the ODNR on March 15, 2018. ODNR provided a response dated April 19, 2018. ODNR's response was based on an inter-disciplinary review, including input from the Ohio Natural Heritage Database (ONHD), Division of Fish and Wildlife (DOW), and the Division of Water Resources.

No ONHD records were within a 1-mile radius of the Project Area. The ONHD indicated no records of state potentially threatened plants, special interest or species of concern animals, or any federally listed species. In addition, ODNR is unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, national wildlife refuges, or other protected natural areas within the Project Area as well as within an additional 1-mile radius.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that BMPs be utilized to minimize erosion and sedimentation. The DOW also commented that the Project is within range of the Indiana bat. The DOW recommends that if suitable habitat is located in the Project Area, that Indiana bat roost trees be conserved. If suitable habitat occurs within the Project Area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If tree removal is to occur during the summer months, the DOW recommends net surveys be conducted prior to cutting.

Regarding native freshwater mussels, ODNR recommends following the Ohio Mussel Survey Protocol (ODNR- USFWS 2018), which is discussed in detail in Section 6.3 of this report.

DOW also recommends no in-water work in perennial streams from April 15 to June 30 to reduce impacts to aquatic species and their habitat. If no in-water work is proposed in a perennial stream this Project is not likely to impact aquatic species.

The Project is within range of the Eastern Massasauga (*Sistrurus catenatus*), however, due to the location, type of habitat present at the Project site, and within the vicinity of the Project Area, and the type of work proposed, DOW stated that this Project is not likely to impact this species.

The Project is within the range of the Sloan's crayfish (*Orconectes sloanii*), a state-threatened species. DOW recommends that the in-stream portions of the Project be conducted during base or slightly above flow to allow the Sloan's crayfish to relocate out of the area as in-water work begins. If below base flow

the County Engineer and the opinion of Staff on approval of the repair work differ, Staff shall have the final authority to approve the repair work. As stated in the Application, the Applicant will develop a Stormwater Pollution Prevention Plan that will require the utilization of silt fences during construction and the prompt removal of construction silt from drainage ditches when necessary for continued efficient drainage. The Applicant shall provide the Soil & Water Conservation District and the County Engineer with a single point of contact with the Applicant after construction is completed to address any resource concerns.

- (17) Within 30 days after issuance or receipt, the Applicant shall provide Staff a copy of any arrangement or resulting resolution adopted by Preble County relating to the Payment in Lieu of Taxes (PILOT) program.
- (18) Prior to the preconstruction conference, the Applicant shall submit a vegetation management plan to Staff for review and confirmation that it complies with this condition. The plan would identify all areas of proposed vegetation clearing for the project, specifying the extent of the clearing, and describing how such clearing work would be done as to minimize removal of woody vegetation. The plan shall describe how trees and shrubs along access routes, at construction staging areas, during maintenance operations, and in proximity to any other project facilities would be protected from damage. The plan shall also describe the implementation and maintenance of pollinator-friendly plantings and describe any planned herbicide use. The plan shall also describe 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. The Applicant shall consult with the Ohio Seed Improvement Association prior to purchase of seed stock regarding the names of reputable vendors of seed stock and shall purchase seed stock used on this project from such recommended sources to the extent practicable and to the extent seed stock is available from such vendor(s).
- (19) The Applicant shall adhere to seasonal cutting dates of October 1 through March 31 for the removal of trees three inches or greater in diameter to avoid impacts to Indiana bats and northern long-eared bats, unless coordination with the Ohio Department of Natural Resources (ODNR) and the U.S. Fish and Wildlife Service (USFWS) allows a different course of action.
- (20) The Applicant shall have an environmental specialist on site during construction activities that may affect sensitive areas as shown on the Applicant's final approved construction plan as approved by Staff. Sensitive areas include, but are not limited to, areas of vegetation clearing, designated wetlands and streams, and locations of threatened or endangered species or their identified habitat. The environmental specialist shall be familiar with water quality protection issues and potential threatened or endangered species of plants and animals that may be encountered during project construction.
- (21) The Applicant shall contact Staff, the ODNR, and the USFWS within 24 hours if state or federal listed species are encountered during construction activities.

Construction activities that could adversely impact the identified plants or animals shall be immediately halted until an appropriate course of action has been agreed upon by the Applicant, Staff and the appropriate agencies.

- (22) The Applicant shall file on the record in this case a construction access plan for review prior to the preconstruction conference. The plan would consider the location of streams, wetlands, wooded areas, and sensitive wildlife and plant species, and explain how impacts to all sensitive resources will be avoided or minimized during construction, operation, and maintenance. The plan would include the measures to be used for restoring the area around all temporary access points, and a description of any long-term stabilization required along permanent access routes.
- (23) Prior to the use of horizontal directional drilling, the Applicant shall file on the record in this case a frac-out contingency plan detailing monitoring, environmental specialist presence, containment measures, cleanup, and restoration.
- (24) The Applicant shall minimize, to the extent practicable, the clearing of wooded areas, including scrub/shrub areas that would lead to fragmentation and isolation of woodlots or reduce connecting corridors between one woodlot and another.
- (25) Prior to commencement of construction activities that require transportation permits, the Applicant shall obtain all such permits. The Applicant shall coordinate with the appropriate authority regarding any temporary road closures, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. Coordination shall include, but not be limited to, the county engineer, the Ohio Department of Transportation, local law enforcement, and health and safety officials. The Applicant shall detail this coordination as part of a final traffic plan submitted to Staff prior to the preconstruction conference for review and confirmation by Staff that it complies with this condition.
- (26) If county or township roads are utilized for the construction of this project, the Applicant shall also enter into a road use agreement with the appropriate local authorities prior to construction and subject to Staff review and confirmation that it complies with this condition. The road use agreement shall contain provisions for the following: (a) a preconstruction survey of the conditions of the roads; (b) a post-construction survey of the condition of the roads; (c) an objective standard of repair that obligates the Applicant to restore the roads to the same or better condition as they were prior to construction; and (d) a timetable for posting of a construction road and bridge bond prior to the use or transport of heavy equipment on public roads or bridges for construction and for the posting of a decommissioning bond prior to the use or transport of heavy equipment on public roads or bridges for decommissioning. The Applicant shall provide the Board's Staff a copy of the transportation management plan and any road use agreement(s) 30 days prior to the preconstruction conference.

ATTACHMENT D

Construction activities that could adversely impact the identified plants or animals shall be immediately halted until an appropriate course of action has been agreed upon by the Applicant, Staff and the appropriate agencies.

- (22) The Applicant shall file on the record in this case a construction access plan for review prior to the preconstruction conference. The plan would consider the location of streams, wetlands, wooded areas, and sensitive wildlife and plant species, and explain how impacts to all sensitive resources will be avoided or minimized during construction, operation, and maintenance. The plan would include the measures to be used for restoring the area around all temporary access points, and a description of any long-term stabilization required along permanent access routes.
- (23) Prior to the use of horizontal directional drilling, the Applicant shall file on the record in this case a frac-out contingency plan detailing monitoring, environmental specialist presence, containment measures, cleanup, and restoration.
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- (25) Prior to commencement of construction activities that require transportation permits, the Applicant shall obtain all such permits. The Applicant shall coordinate with the appropriate authority regarding any temporary road closures, lane closures, road access restrictions, and traffic control necessary for construction and operation of the proposed facility. Coordination shall include, but not be limited to, the county engineer, the Ohio Department of Transportation, local law enforcement, and health and safety officials. The Applicant shall detail this coordination as part of a final traffic plan submitted to Staff prior to the preconstruction conference for review and confirmation by Staff that it complies with this condition.
- (26) If county or township roads are utilized for the construction of this project, the Applicant shall also enter into a road use agreement with the appropriate local authorities prior to construction and subject to Staff review and confirmation that it complies with this condition. The road use agreement shall contain provisions for the following: (a) a preconstruction survey of the conditions of the roads; (b) a post-construction survey of the condition of the roads; (c) an objective standard of repair that obligates the Applicant to restore the roads to the same or better condition as they were prior to construction; and (d) a timetable for posting of a construction road and bridge bond prior to the use or transport of heavy equipment on public roads or bridges for construction and for the posting of a decommissioning bond prior to the use or transport of heavy equipment on public roads or bridges for decommissioning. The Applicant shall provide the Board's Staff a copy of the transportation management plan and any road use agreement(s) 30 days prior to the preconstruction conference.

ATTACHMENT E

participating land owners may choose to retain roads for their own use following decommissioning. Buried portions of collection lines will be more than three (3) feet below grade and, therefore, need not be removed to return farm fields to cultivation.

Decommissioning the Project should not require any soil or groundwater remediation. Operation of the Project will not create any hazardous waste or wastewater. The only materials that may be left on the Project Area are roads desired by land owners, buried collection lines, and possibly piles that break off more than three (3) feet below grade. Solar panels typically contain only very small amounts of hazardous materials, all of which are safely encased in glass. Even if damaged by breakage or fire, solar panels are exceedingly unlikely to release any material necessitating soil or water remediation.

Applicant will prepare a comprehensive plan specifying the responsible parties, schedules, and projected costs for decommissioning and restoring the Project Area to substantially its pre-construction condition ("Decommissioning Plan"), a copy of which will be provided to the Board. It will provide for the removal and sale, re-use, recycling or proper disposal of all components of the Project, including components containing rare or valuable materials. Decommissioning is expected to take six (6) to nine (9) months.

The Decommissioning Plan will prioritize reuse and recycling over land disposal as waste. Most of the materials used in state-of-the-art solar generating facilities are reusable or recyclable. Given recent and expected trends, it is likely that the percentage of reusable/recyclable components will only increase over time. Solar panels are comprised mostly (almost 80%) of commonly recycled materials: glass, aluminum and copper. Although little recycling has occurred to date due to the relative youth of the solar industry, the Solar Energy Industry Association launched a national recycling program in 2016 with the goal of making the solar industry in the U.S. landfill-free. (SEIA, 2016). One of the top U.S.-based solar panel manufacturers is a leader in the field (First Solar, 2013).

Even if the Project's solar panels are not fully recyclable in 30-40 years, it is unlikely they will constitute "hazardous" or dangerous waste at disposal. Suppliers of most solar panel have demonstrated that their products pass U.S. EPA's "Toxic Leaching Characteristic Procedure" qualifying them as routine waste. This includes the Ohio-made

solar panels based on cadmium telluride chemistry (Lagunas, January 2017). As a result, solar panels generally may be disposed of in standard landfills.

The Decommissioning Plan will require that the contractor leading the decommissioning effort work closely with manufacturers, local subcontractors, and waste management firms to segregate—based on the prevailing standards and practices at the time—materials that can be reused and recycled from those that must be land-disposed as waste.

The Decommissioning Plan also will require that the Project Area be restored to use for cultivation, unless circumstances prevailing shortly in advance of the start of decommissioning indicate that another use is more appropriate or explicitly desired by the land owner. Restoration will include a return to the same or functionally similar pre-construction drainage patterns, including farm drainage tiles, decompaction of soil, and seeding with an appropriate, low-growing vegetative cover, such as clover, to stabilize soil, enhance soil structure, and increase soil fertility. As addressed with respect to impacts to agricultural resources, the Decommissioning Plan also will repair any damage to drain tile systems.

Applicant also will provide for financial security to ensure that funds are available for decommissioning. Prior to construction, an independent and registered professional engineer licensed to practice in Ohio and retained by Applicant will estimate the total cost of fully implementing the Decommissioning Plan. This will consist of estimates of (1) the gross cost of decommissioning, without regard to the salvage value of the components, plus 10% to cover contingencies; less (2) salvage value, less 10% to cover contingencies (“Net Decommissioning Cost”). A professional engineer will re-calculate the Net Decommissioning Costs approximately every five (5) years over the life of the Project.

If and when the Net Decommissioning Cost is a positive number, Applicant will post and maintain a surety bond or similar financial assurance instrument in the amount of the Net Decommissioning Cost. If and when a subsequent estimate of the Net Decommissioning Cost increases the New Decommissioning Cost, the financial assurance instrument will be increased to that amount. Except as it may be drawn upon

to implement the Decommissioning Plan, the amount of the financial assurance will not be reduced.

VII. COMPLIANCE WITH AIR, WATER, SOLID WASTE, AND AVIATION REGULATIONS

A. PURPOSES OF RULE

OPSB Application Requirement [4906-4-07(A)]:

“(A) The information requested in this rule shall be used to determine whether the facility will comply with regulations for air and water pollution, solid and hazardous wastes, and aviation. Where appropriate, the applicant may substitute all or portions of documents filed to meet federal, state, or local regulations. Existing data may be substituted for physical measurements.”

Response:

[4906-4-07(A)]

Because of the nature of utility-scale solar facilities, several of the requirements on these subjects, especially with regard to air regulations, do not apply to the Project. The specific instances in which a particular requirement does not apply are identified below.

B. AIR QUALITY

1. PRECONSTRUCTOIN AIR QUALITY AND PERMITS

OPSB Application Requirement [4906-4-07(B)(1)]:

“(1) The applicant shall submit information regarding preconstruction air quality and permits.

(a) Provide available information concerning the ambient air quality of the proposed project area and any proposed alternative project area(s).

(b) Describe the air pollution control equipment for the proposed facility.

Stack gas parameters including temperature and all air pollutants regulated by the federal or state environmental protection agency shall be described for each proposed fuel. These parameters shall be included for each electric power generation unit proposed for the facility. Include tabulations of

- (27) The Applicant shall not commence any construction of the facility until it has executed an Interconnection Service Agreement and Interconnection Construction Service Agreement with PJM Interconnection, which includes construction, operation, and maintenance of system upgrades necessary to integrate the proposed generating facility into the regional transmission system reliably and safely. The Applicant shall docket in the case record a letter stating that the Agreement has been signed or a copy of the executed Interconnection Service Agreement and Interconnection Construction Service Agreement.
- (28) Local fire and EMS service providers (Camden-Somers Fire Department, West College Corner Fire Department, Eaton Fire and EMS and Gasper Fire Department) will be trained in how to respond to emergency/fire situations that could occur at the project. At least one in-service emergency training shall be conducted prior to commencement of construction. Multiple training dates for both firefighters and EMS staff will be offered to ensure all responders have adequate situational training specific to solar energy facilities. In addition, safety meetings shall be held with emergency service personnel on an on-going basis. The Applicant will include in such training any emergency procedures which may be specific to the solar array model used for the project. If local fire and EMS responders lack any specialized equipment needed to appropriately respond to an emergency at the project, the Applicant shall provide such equipment to the local fire and EMS service providers when construction commences.
- (29) At least 60 days prior to construction, as stated in the Application, the Applicant shall submit a comprehensive decommissioning plan for review and approval by Staff. The plan will specify the responsible parties, outline a decommissioning schedule of fewer than 12 months, estimate full decommissioning and restoration costs net of salvage value, require restoration of the project area, and require proper disposition of all project components. Prior to construction, the Applicant will, if applicable, post financial security, e.g. a decommissioning bond, to ensure that funds are available to pay for the net decommissioning costs. The Applicant will retain an independent and registered professional engineer to calculate the net decommissioning costs, which shall be incorporated into the plan and reflected in the financial security. This net decommissioning estimate shall be recalculated at least every five years by an engineer retained by Applicant and the financial security adjusted to reflect any increase in the net decommissioning costs.

B. Other Terms and Conditions

(1) This Stipulation is expressly conditioned upon its acceptance by the Board without material modification. In the event the Board rejects or materially modifies all or part of this Stipulation or imposes additional conditions or requirements upon the Parties, each party shall have the right, within thirty (30) days of the Board's order, to file an application for rehearing with

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Case No(s). 18-1579-EL-BGN

Summary: Reply Brief electronically filed by Mr. Michael J. Settineri on behalf of Angelina Solar I, LLC