

BEFORE THE OHIO POWER SITING BOARD

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| 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 |) | |

DIRECT TESTIMONY OF DOUGLAS HERLING

1 **Q.1. Please State your name, title, and business address.**

2 **A.1.** My name is Douglas Herling. I am Director of Business Development with Open Road
3 Renewables, LLC (“Open Road”), 1105 Navasota Street, Austin, Texas 78702. The sole
4 member of Applicant, Angelina Solar I, LLC (“Applicant”), is Blue Planet Renewable Energy,
5 LLC, whose members are Open Road and MAP 2015, L.P (“MAP”). I am the project manager
6 for the Angelina Solar Project (“Project”).

7 **Q.2. What are your duties as Director of Business Development?**

8 **A.2.** I am responsible for the development of a number of solar energy projects being
9 developed by Open Road. My responsibilities include, but are not limited to, identifying
10 prospective projects with suitable solar resources and electric transmission access; acquiring land
11 rights; establishing and developing relationships with elected officials, regulators, and
12 community opinion leaders to support project development; developing and managing project
13 budgets; managing environmental studies and permitting processes; managing third party
14 consultants; and supporting financial analysis and modeling of project economics.

1 **Q.3. What is your education and professional background?**

2 **A.3.** I graduated from Colgate University with a bachelor’s degree in Geology in 2008 and
3 subsequently completed my MBA at the University of Texas – McCombs School of Business in
4 2015. Professionally I have worked in the financial industry and energy industry since
5 graduating from college and business school, respectively. From 2008 to 2013 I worked for Oak
6 Investment Partners and at the Environmental Investment Organization. From 2014 through
7 2016 I worked for Pioneer Green Energy in wind and solar development and in business
8 development, alternatively assisting or leading the development of several large-scale projects in
9 Texas. In 2017 I joined Open Road Renewables, a renewable energy development company
10 based in Austin, Texas.

11 **Q.4. On whose behalf are you offering testimony?**

12 **A.4.** I am testifying on behalf of the Applicant.

13 **Q.5. What is the purpose of your testimony?**

14 **A.5.** There are three purposes to my testimony. First, I would like to provide background
15 information concerning the Application and Exhibits submitted to Staff on December 3, 2018
16 (Company Exhibit 1). Second, I will summarize the major items in the Application and sponsor
17 its admission into evidence along with the exhibits, certificates of service, proofs of publications,
18 and other letters required by Ohio Power Siting Board rules. Third, I will be responding to the
19 recommendations by the Staff in the Staff Report.

20 **Q.6. Would you please provide a summary and overview of the proposed Project?**

1 **A.6.** The Applicant is proposing to build the Project as an 80 MW solar-powered generating
2 facility in Israel and Dixon Townships, Preble County, Ohio. The Project would consist of large
3 arrays of ground-mounted photovoltaic modules, commonly referred to as solar panels. The
4 Project also includes associated support facilities, such as access roads, meteorological stations,
5 buried electrical collection lines, inverter pads, and a substation. The energy generated by the
6 Project will be delivered to a single point of interconnection at the American Electric Power 138
7 kilovolt (“kV”) College Corner substation (“POI Substation”).

8 **Q.7. What is the general purpose of the Project?**

9 **A.7.** The general purpose of the Project is to produce and deliver clean, renewable electricity
10 to the Ohio bulk power transmission system to serve the needs of electric utilities and their
11 customers. The electricity generated by the Project will be delivered to the transmission grid
12 operated by PJM Interconnection, LLC for sale into the wholesale electric market.

13 **Q.8. Would you describe the Project Area, proposed Project and the power generation**
14 **potential of the solar farm?**

15 **A.8.** The Project is located within approximately 934 acres of privately-owned land in in Israel
16 and Dixon Townships, Preble County, Ohio, most of which has been leased by the Applicant, as
17 described further in the Application (“Project Area”). The Project will be located on previously
18 disturbed land that has been mostly cleared for agriculture and is extremely level. The
19 predominant industry is agriculture.

20 The Project Area is rural, and is largely characterized by large-sized farms with a few pockets of
21 trees. Existing features in the Project Area include two electric transmission lines, the POI

1 Substation, public roads, single family homes and farm buildings. The Project Area itself does
2 not include any population centers, major industries or notable landmarks.

3 The Project's design and engineering is not yet finalized, but it is expected to occupy a
4 maximum of 827 acres of the 934 acres comprising the Project Area.

5 The Project will generate electricity with conventional solar panels, which will be affixed to
6 metal racking. The racking will include piles that will be driven, or screws that will be rotated,
7 into the ground to form long rows or "arrays". Arrays will be grouped into several large clusters,
8 called "solar fields," each of which will be fenced, with locked gates, for equipment security and
9 public safety.

10 The Project's arrays will use one of two types of racking: "fixed-tilt" or "tracking." Fixed-tilt
11 racking will be stationary, and each array will run in an east-west direction. Panels mounted on
12 fixed-tilt racking will be oriented or "tilted" to the south. Tracking arrays will run in a north-
13 south direction and be equipped with electric motors that very slowly rotate the panels
14 throughout the day to keep them perpendicular to the direction of sunlight. Tracking arrays will
15 face east at sunrise, rotate to the west during the day, face west at sunset, and then re-set to the
16 east.

17 The solar panel technology for the Project will be one of two basic types: crystalline or thin-film.
18 Crystalline modules are silicon-based. Thin-film modules use one of several alternative
19 chemistries (such as cadmium telluride or copper indium gallium selenide). Most racking
20 systems, whether fixed-tilt or tracking, will accommodate either crystalline or thin-film modules.

21 Although the specific module vendor has not been selected, "Tier 1" modules will be used for
22 the Project, which are reliable modules with market warranties manufactured by leading firms.

1 At a capacity of 80 MW, the Project will use approximately 213,333 to 320,000 solar panels.
2 Depending on the choice of racking and the specific module, the expected annual net capacity
3 factor for the Project is expected to be between 23% and 25%. At a total generating capacity of
4 80 MW, expected operating times, and net capacity factors, the Project will generate between
5 161,184 to 175,200 megawatt-hours of electricity each year.

6 **Q.9. Were you involved in the preparation of the December 3, 2018 Application and**
7 **Exhibits and responses to Staff Data Requests?**

8 **A.9.** Yes, I was directly involved. The Application and Exhibits (Company Exhibit 1) as well
9 as all of the Responses to the Staff Data Requests (Company Exhibit 2) are true and accurate and
10 were prepared under my direction.

11 **Q.10. Were copies of the accepted Application served on local public officials and libraries**
12 **in accordance with Rule 4906-3-07(A) of the OAC?**

13 **A.10.** Yes, I directed that such service take place and am sponsoring Company Exhibit 3, which
14 is the proof of service of the Application.

15 **Q.11. Did the Applicant file and serve a copy of the letter sent to property owners and**
16 **tenants within the Project Area or contiguous to the Project Area?**

17 **A.11.** Yes, pursuant to Rule 4906-3-03(B) of the OAC, I directed that a letter be sent to certain
18 property owners on October 23, 2018 announcing the Public Information Meeting on November
19 15, 2018. Subsequent letters were mailed on March 1, 2019 pursuant to Rule 4906-3-09(A)(1)
20 and on April 19, 2019 pursuant to Rule 4906-03-09(A)(2) of the OAC. See Company Exhibit 4
21 which I am sponsoring.

1 **Q.12. Did the Applicant cause notice of the public informational meeting, the Application,**
2 **and the hearing dates to be published in local newspapers?**

3 **A.12.** Yes, I directed that such notice be published at appropriate times in the Eaton Register-
4 Herald. See Company Exhibit 5.

5 **Q.13. Would you please list the consultants that the Applicant retained to assist in the**
6 **preparation of the Application and Exhibits and their respective areas of**
7 **responsibility?**

8 **A.13.** Yes. The Applicant worked with EDR, acting as lead consultant on the Application, to
9 coordinate the studies used to generate the Application and associated exhibits. The consultants
10 and their respective subject areas of expertise are:

- 11 • EDR – Visual Resources; Cultural Resources
- 12 • Hessler Associates, Inc. – Noise Assessment
- 13 • Hull and Associates – Transportation; Geotechnical-Hydrogeology
- 14 • Cardno, Inc. – Ecological Assessment
- 15 • Economics Center of the University of Cincinnati – Economic and Fiscal Impact

16 **Q.14. Do you believe that the proposed Project will have a positive impact on the local**
17 **community?**

18 **A.14.** Yes. The Project is predicted to create 518 to 1,076 direct and indirect jobs during
19 construction and up 19 to 22 jobs during the operations period. Along with associated wages and
20 services provided locally to support construction and operations, the community will benefit
21 from a payment in lieu of taxes (“PILOT”) amounting to at least \$560,000 per annum (based on

1 a payment by the Project of \$7,000 per MW of installed nameplate capacity) if all steps are taken
2 by the Applicant and Preble County to implement the PILOT.

3 **Q.15. Has the Project been designed to achieve minimum impacts?**

4 **A.15.** Yes. Since 2016 the Applicant has been working with landowners, elected
5 representatives and community members to discuss the development of the Project. Those
6 discussions have been positive, and people have shown support for the Project. We have
7 designed the Project to minimize or eliminate potential impacts of construction and operation.

8 Temporary construction activities are expected to have typical and relatively limited impacts
9 given their intermittent nature, time of day restrictions, and use of best management practices.

10 Increased traffic during construction will be managed and will cease when the Project is
11 operational. The Applicant will obtain all required permits and authorizations including, for
12 example, Nationwide Permits from the U.S. Army Corps of Engineers, if required. Following
13 construction, roads will be restored to conditions as good as or better than those existing prior to
14 construction.

15 The Applicant engaged consultants to study the potential environmental, ecological, cultural, and
16 visual impacts of the Project. Those studies are attached to the Application and, as Ryan
17 Rupprecht of Cardno, Matt Robinson of EDR, Mark Bonifas of Hull, and David Hessler of
18 Hessler Associates explain in their separate testimony, show few or no expected impacts from
19 the Project. Andrew Lines of CohnReznick is also testifying regarding the impact of the Project
20 on property values surrounding the Project Area, and Noah Waterhouse of EVS is testifying
21 regarding the impact of the Project on drainage, runoff, and drain tile in and near the Project
22 Area.

1 The Project has been sited to minimize adverse impacts. Tree clearing has been minimized by
2 careful layout and design; no windrows are expected to be cleared. Although our studies found
3 no listed species in the 934-acre Project Area, the Applicant will take measures to avoid impacts
4 to potentially suitable habitat for rare bat species by minimizing and seasonally limiting tree
5 clearing where they could nest or forage in the summer months.

6 The minimal sound from the operation of the Project will be essentially inaudible for all non-
7 participating residences due to the near-silent operating nature of solar arrays and by locating
8 inverters sufficiently far from neighboring residences.

9 Visual impacts of the Project will be mitigated by the flat nature of the terrain, the low profile of
10 the solar panels, preservation of natural vegetative buffers, and by addition of added vegetative
11 screening, including landscaping with pollinator habitat, in selected locations.

12 Other operational impacts will be minimal. The Project will generate no wastewater, no air
13 emissions, and minimal solid waste. The Project will generate no odor and little light.
14 Operational activities apart from routine maintenance of the Project may include washing the
15 solar panels (when not fully cleaned by rainfall) and controlling vegetative growth through
16 predominantly mechanical means.

17 Lastly, the Applicant will implement a complaint resolution procedure to ensure any complaints
18 regarding construction and operation of the Project are appropriately investigated and addressed.

19 **Q.16. How did the Applicant decide to locate the Project in Preble County?**

20 **A.16.** The Applicant chose to pursue the Project in southwestern Ohio for a variety of reasons.
21 First, the area offers an attractive combination of strong electricity demand, stable power prices,
22 and a robust transmission system. Generating power close to the large metropolitan areas of

1 Cincinnati and Dayton provides power where it is most needed, and also reduces issues of
2 transmission congestion often presented by generating power distant from where it is used. The
3 need for power in the area is strong and the associated transmission system can cost-effectively
4 accommodate large amounts of additional power. A map depicting the general location of the
5 Project Area in Ohio is attached as Figure 4 to the Application. Second, as shown on the map
6 attached as Figure 5 to the Application, southwestern Ohio enjoys some of the best solar resource
7 in the State.

8 Within the general region, the Project Area was determined largely by the location of the POI
9 Substation. A key ingredient for generating the most affordable electricity for Ohio consumers
10 with solar panels is identifying those locations at which substantial new generation may be
11 injected without extensive and costly upgrades to the transmission system. Our preliminary
12 studies indicated that delivering power to Ohio consumers through the POI Substation would be
13 highly cost-effective. This has been confirmed by the results of the Project's formal
14 transmission studies conducted by PJM Interconnection, Inc.

15 **Q.17. Will the Project adversely impact cultural historic resources?**

16 **A.17.** No. On behalf of the Applicant, EDR conducted a literature review and archaeological
17 site file review of the area within two miles of the Project Area, referencing EDR's in-house
18 resources in addition to resources available on file at the Ohio Historic Preservation Office
19 ("OHPO") in Columbus, Ohio, and searched a number of public databases. EDR analyzed the
20 Project Area and the surrounding area within a 2-mile buffer zone.

21
22 This analysis identified one National Register of Historic Places-listed resource, thirty Ohio
23 Historic Inventory listed-properties, two Ohio Department of Transportation historic bridges, and

1 five Ohio Genealogical Society-listed cemeteries in the 2-mile area. None of these resources
2 occur in the Project Area. EDR concluded that there will be no direct impacts to aboveground
3 cultural resources (i.e., cemeteries or historic structures) from construction of the Project. After
4 the final layout of the Project's equipment is determined, the Applicant plans to conduct a
5 limited archaeological survey for those portions of the Project where substantial, direct ground
6 disturbance is proposed. Prior to finalizing the Project layout, the Applicant will conduct a
7 limited Phase I Archeological Survey to identify any potential architectural resources not
8 previously identified by EDR.

9

10 The Project will not directly (physically) impact any known cultural resources within a 2-mile
11 area, and therefore no mitigation measures for direct impacts are proposed.

12 **Q.18. How will the Project protect existing drain tile in the Project Area?**

13 **A.18.** The Applicant is consulting with the owners of agricultural land participating in the
14 Project and other readily available public resources to ascertain, to the extent practicable, the
15 type, size and location of all functioning drain tile in the Project Area. This effort will be
16 completed prior to the start of construction for all areas that will be under construction. The
17 Applicant will use this information to map the expected locations of drain tile and physically
18 mark the surface accordingly. To the extent the location of functioning drain tile is known,
19 during construction the Applicant either will avoid damage to it or repair any that is purposefully
20 damaged. The Applicant will use commercially reasonable efforts during construction to
21 promptly repair any such drain tile that is damaged. Also, during operation of the Project, if the
22 Applicant becomes aware of circumstances indicating that the Project has damaged functioning
23 drain tile, then the Applicant will promptly investigate the matter and, subject to any required

1 permitting, use commercially reasonable efforts to promptly repair any such damage. With the
2 above steps, I do not anticipate any material changes to existing drainage flows to other
3 properties surrounding the Project.

4 **Q.19. How will the Applicant address viewshed concerns?**

5 **A.19.** It is important to recognize that the Project will have a relatively modest visual impact on
6 the area. The Project Area is quite flat, and the solar panels will be installed almost entirely on
7 existing grades and so will follow the natural contours of the land. Solar panels will be no more
8 than 15 feet high at their highest point, and for tracking systems will have a much lower profile
9 during most of the day. The rotation of tracking panels during the day, as they follow the path of
10 the sun, will be too slow for observers to perceive. Thus, the solar fields will have a relatively
11 low visual profile.

12 The Applicant, in order to mitigate viewshed impacts, will avoid removing existing vegetative
13 buffers on the perimeter of the Project Area and employ industry best practices in designing a
14 landscape plan. Forested areas will be maintained wherever possible to preserve existing views.
15 The landscaping plan will include, but will not be limited to, options such as alternative fencing,
16 planting of pollinator habitat along fences to soften and obscure the view, and robust screening
17 with native shrubs or low growing trees in certain situations.

18 The mitigation measures to be used by the Applicant are industry best practices for mitigation
19 developed in solar markets across the U.S. Open Road employees and employees of MAP's
20 affiliates have been involved in the development numerous operating solar projects throughout
21 the U.S. and actively participate in a variety of industry groups from which these industry best
22 practices arise. The institutional knowledge of developing and designing well-sited, low-impact

1 solar farms has been applied to the Project and is intended to minimize and prospectively address
2 any complaints or concerns.

3 I note that the Staff Report of Investigation at page 12 included recommendations for screening
4 the Project “from adjacent residences with a view of the facility by providing an opaque
5 perimeter fence, as well as adding vegetative landscaping where feasible.” The Applicant
6 intends to screen adjacent residences using a combination of measures arrived at after discussion
7 with the relevant landowner, which may, but will not necessarily, include “opaque” fencing, in
8 compliance with Staff recommended Condition 11. As I previously noted, other such measures
9 may include full screening with short trees, native hedges or low growing vegetation outside a
10 portion of the fence may be employed. Portions of the perimeter fence may be designed with
11 different materials or colors to enhance its visual appeal. Native pollinator habitat outside a
12 portion of the fence may be used to provide a partial screen that “softens” the visual differences
13 between the Project and the rural character of the area. The Applicant will work closely with
14 nearby residents and local officials to identify those locations that may be best suited for
15 landscaping treatments.

16 **Q.20. Does the Applicant intend to develop a vegetation management plan for the Project?**

17 **A.20.** Yes. The vegetation management plan to be developed by the Applicant will comply
18 with Staff Recommended Condition 18, and will include pollinator-friendly, native plantings in
19 selected locations along the perimeter of the Project. I note, however, that the Staff Report of
20 Investigation at page 19 includes a recommendation to “incorporate plantings of legumes and
21 wildflowers in areas between the solar panels.” The Applicant believes that this
22 recommendation is unnecessary. Inclusion of vegetation other than native turf grass plantings in
23 areas inside the Project perimeter fence generally increases maintenance expense and operational

1 complexity while providing little benefit to neighbors compared to the plantings along the
2 perimeter of the Project.

3 **Q.21. Will the Project comply with applicable safety and equipment standards?**

4 **A.21.** Yes. Additionally, I note that the various organizations referenced in the Staff Report of
5 Investigation at page 31 may not have issued or published safety and equipment standards
6 applicable to the Project. The Applicant will comply with those safety and equipment standards
7 that are applicable to commercial-scale solar farms and are standard in the industry.

8 **Q.22. How will the Applicant ensure the security of the Project?**

9 **A.22.** The Project will be protected by a perimeter fence at least six feet in height, and access
10 gates through the fence will be locked except when in use. In addition, the Project's operational
11 personnel will conduct periodic security checks of the Project. Downward-facing and shielded
12 lighting will be used at access gates for safety and security.

13 **Q.23. How is the Applicant planning to decommission the Project at the end of the**
14 **Project's useful life?**

15 **A.23.** The Applicant will prepare a comprehensive plan specifying the responsible parties,
16 schedules, and projected costs for decommissioning and restoring the Project Area to
17 substantially its pre-construction condition ("Decommissioning Plan"), a copy of which will be
18 provided to the Board. It will provide for the removal and sale, re-use, recycling or proper
19 disposal of all components of the Project, including components containing rare or valuable
20 materials. Decommissioning is expected to take six to nine months.

1 **Q.24. Will there be any financial assurance requirements associated with the**
2 **decommissioning?**

3 **A.24.** Yes. The Applicant is committed to providing for financial security to ensure that
4 adequate funds are available for decommissioning. Prior to construction, an independent and
5 registered professional engineer licensed to practice in Ohio and retained by the Applicant will
6 estimate the total cost of fully implementing the Decommissioning Plan. This will consist of
7 estimates of (1) the gross cost of decommissioning, without regard to the salvage value of the
8 components, plus 10% to cover contingencies; less (2) salvage value, less 10% to cover
9 contingencies (“Net Decommissioning Cost”). A professional engineer will re-calculate the Net
10 Decommissioning Costs approximately every five (5) years over the life of the Project. If and
11 when the Net Decommissioning Cost is a positive number, the Applicant will post and maintain
12 a surety bond or similar financial assurance instrument in the amount of the Net
13 Decommissioning Cost. If and when a subsequent estimate of the Net Decommissioning Cost
14 increases the New Decommissioning Cost, the financial assurance instrument will be increased
15 to that amount. Except as it may be drawn upon to implement the Decommissioning Plan, the
16 amount of the financial assurance will not be reduced.

17 **Q.25. Will agricultural fields within the Project Area be able to be farmed again after the**
18 **Project is decommissioned?**

19 **A.25.** Yes. The Project will have only modest impacts to the land. The solar panels and
20 racking will be installed on simple posts driven or rotated into the ground, likely to a depth of
21 less than ten feet. Inverters and pyranometers will be installed on pre-fabricated foundations,
22 which can be lifted out of place. The Project’s substation will be installed on poured concrete,
23 but will not cover a large area. Roads will be constructed of aggregate material or covered in

1 grass, not paved, and participating land owners may choose to retain roads for their own use
2 following decommissioning. There will not be any long-term impacts from the Project that
3 would preclude its use for farming after the useful life of the Project.

4 In addition, the Decommissioning Plan to be developed by the Applicant also will require that
5 the Project Area be restored to use for cultivation, unless circumstances prevailing shortly in
6 advance of the start of decommissioning indicate that another use is more appropriate or
7 explicitly desired by the land owner. Restoration will include a return to the same or
8 functionally similar preconstruction drainage patterns, including farm drainage tiles,
9 decompaction of soil, and seeding with an appropriate, low-growing vegetative cover, such as
10 clover, to stabilize soil, enhance soil structure, and increase soil fertility.

11 **Q.26. Will construction of the Project result in intrusive amounts of traffic, noise or dust?**

12 **A.26.** No. The amount of dust generated will be relatively low for the Project's acreage
13 because relatively little topsoil will be removed and there will be minimal grading and other
14 earth-moving activities, and virtually no excavation except for efficient trenching. As with other
15 construction activities, dust emissions will be localized to the area of activity and temporary.
16 Best management practices in the construction industry will be used to minimize the amount of
17 dust created by construction. Additionally, as detailed in the testimonies of Mr. Bonifas and Mr.
18 Hessler, traffic and noise resulting from construction of the Project should be insignificant.

19 **Q.27. Will the Project have an impact on telephone, radio, or other signals or electronic**
20 **devices?**

21 **A.27.** No. Because the Project lacks tall structures and exposed moving parts, and it will
22 generate only very weak electromagnetic fields ("EMFs"), and only during the day, any EMF

1 generated will dissipate rapidly within short distances and will not impact signals or electronic
2 devices. Specifically, PV arrays generate EMF in the same extremely low frequency (“ELF”)
3 range as electrical appliances and wiring found in most homes and buildings. In addition, a
4 recent study of solar arrays in Massachusetts reported that electric fields levels measured along
5 the boundary of the projects were not elevated above background.

6 **Q.28. Is there a potential risk of hazardous substances being released to the environment**
7 **as a result of the construction and operation of the Project?**

8 **A.28.** No. As an initial matter, operation of the Project will not create any hazardous waste or
9 wastewater. The panels themselves are comprised mostly of commonly recycled materials:
10 glass, aluminum and copper. While there are some chemicals used in the panel manufacturing
11 process, suppliers of solar panels that will be used for the Project have demonstrated that their
12 products pass U.S. EPA’s “Toxic Leaching Characteristic Procedure” qualifying them as routine
13 “solid” waste. This includes the Ohio-made solar panels based on cadmium telluride chemistry.
14 As a result, solar panels generally may be disposed of in standard landfills.

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

22 Finally, I note that, in recent years, solar panels have become a common sight around Ohio in
23 general, and in southwest Ohio in particular. Recent data indicates that an average of over 1 in

1 1,000 Ohio homes has a solar system. Roof-mounted or small ground mounted solar arrays use
2 the same basic panel technology as the Project, and are installed at businesses, residences,
3 schools, and colleges and universities throughout Ohio. One example in Eaton is the local
4 Walgreens store. There are also residential solar installations near Eaton, including Israel
5 Township, according to PUCO records.

6 **Q.29. Will the Applicant be sponsoring witnesses to support the Application in addition to**
7 **your testimony?**

8 **A.29.** In addition to my testimony, the Applicant will present testimony by Ryan Rupprecht of
9 Cardno, Matthew Robinson of EDR, Mark Bonifas of Hull, David Hessler of Hessler Associates,
10 Andrew Lines of CohnReznick, and Noah Waterhouse of EVS relative to certain studies
11 contained in the Application and potential effects of the Project.

12 **Q.30. Have you reviewed the Staff Report issued on April 15, 2019 and does the Applicant**
13 **have any concerns with or proposed revisions to any of the conditions recommended**
14 **by the Staff in the Staff Report of Investigation?**

15 **A.30.** Yes, I have reviewed the Staff Report. The Applicant is generally satisfied with the
16 Recommended Conditions but recommends several minor revisions. I believe the modifications
17 presented to the conditions are reasonable and will result in the same level of oversight by the
18 Board's Staff as well as methods to ensure the Project has minimal impacts on nearby residences.
19 The Applicant recommends the following revisions:

20 Condition 8

21 Condition 8 should be modified so that the Applicant is required to provide copies of permits and
22 authorizations, including all supporting documentation, to the Staff at least seven days prior to

1 the applicable construction activities as opposed to within seven days of issuance or receipt.
2 Because of potential delays in transmission, this would seem to be a more orderly process for
3 everyone involved. Specifically, the Applicant recommends that Condition 8 be modified as
4 follows:

5 Prior to the commencement of construction activities in areas that require permits
6 or authorizations by federal or state laws and regulations, the Applicant shall
7 obtain and comply with such permits or authorizations. The Applicant shall
8 provide copies of permits and authorizations, including all supporting
9 documentation, to Staff at least within seven days prior to the applicable
10 construction activity of issuance or receipt by the Applicant. The Applicant shall
11 provide a schedule of construction activities and acquisition of corresponding
12 permits for each activity at the preconstruction conference.

13
14 Condition 11

15
16 Condition 11 should be modified to broaden the illustrative list of potential measures to be
17 included in a landscape and lighting plan. This would give the Applicant more flexibility to
18 work with adjacent landowners to design a plan that meets the needs of the Applicant and the
19 landowner, and that may have less of a visual impact than an opaque fence. Specifically, the
20 Applicant recommends that Condition 11 be modified as follows:

21 Prior to commencement of any construction, the Applicant shall prepare a
22 landscape and lighting plan that addresses the aesthetic and lighting impacts of the
23 facility where an adjacent non-participating parcel contains a residence with a
24 direct line of sight to the project area. The plan shall include measures such as
25 ~~opaque~~ alternative fencing, vegetative screening or good neighbor agreements.
26 The Applicant shall provide the plan to Staff for review and confirmation that it
27 complies with this condition.

28
29 Condition 24

30 Condition 24 restricts certain clearing of wooded areas, including scrub/shrub areas. The
31 restrictions in this condition are both vague and unnecessary, given that the Project is anticipated
32 to require the clearing of only 0.07 acres of woodlot, and no clearing of windrows. It is unclear
33 to Applicant what type of clearing, in which portions of the Project Area, would constitute

1 prohibited “isolation” of a woodlot or “reducing connecting corridors,” especially with respect to
2 scrub/shrub areas. Applicant specifically recommends that Condition 24 be modified as follows:

3 ~~Except for the areas necessary for access road and collection line installation,~~
4 The Applicant shall not clear minimize the clearing of wooded areas, including
5 scrub/shrub areas, which would lead to fragmentation and isolation of woodlots or
6 reduce connecting corridors between one woodlot and another.

7
8 **Q.31. Does this conclude your direct testimony?**

9 **A.31.** Yes, it does. However, I reserve the right to offer testimony in support of any stipulation
10 reached in this case or, if necessary, in rebuttal.

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 3rd day of May 2019.

/s/ MacDonald W. Taylor _____

Jodi Bair
Jodi.bair@ohioattorneygeneral.gov

Dylan Borchers
dborchers@bricker.com

Kathryn West
kwest@prebco.org

W. Joseph Scholler
jscholler@fbtlaw.com

Thaddeus Boggs
tboggs@fbtlaw.com

Chad Endsley
cendsley@ofbf.org

Leah Curtis
lcurtis@ofbf.org

Amy Milam
amilam@ofbf.org

Jack Van Kley
jvankley@vankleywalker.com

Chris Walker
cwalker@vankleywalker.com

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Summary: Testimony Direct Testimony of Douglas Herling electronically filed by Mr. MacDonald W Taylor on behalf of Angelina Solar I, LLC