

**BEFORE THE
PUBLIC SERVICE COMMISSION
OF MARYLAND**

In the Matter of the Application)	
of Citizens UB Solar, LLC for a Certificate)	
Of Public Convenience and Necessity)	Case No. 9483
to Construct an 8.2 MW Solar)	
Photovoltaic Generating Facility in)	
Carroll County, Maryland)	

DIRECT TESTIMONY OF FREDERICK S. KELLEY

**ON BEHALF OF THE

MARYLAND DEPARTMENT OF NATURAL RESOURCES

POWER PLANT RESEARCH PROGRAM**

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July 12, 2019

1 **Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.**

2 A. Frederick S. Kelley, Program Manager, Power Plant Research Program
3 (PPRP), Department of Natural Resources (DNR), Tawes State Office
4 Building, Annapolis, Maryland 21401.

5 **Q. WHAT IS YOUR POSITION WITH PPRP?**

6 A. I am a Program Manager for PPRP and responsible for the management,
7 oversight, and analysis of environmental impact assessments related to the
8 construction, operation, and maintenance of high voltage transmission lines
9 and power plants, including utility-scale solar facilities.

10 **Q. PLEASE DESCRIBE YOUR EXPERIENCE.**

11 A. I have been employed by PPRP since July 2012. In addition to managing
12 licensing projects I am also responsible for managing contracts that provide
13 Environmental Engineering Integrator support to the program, including to
14 assess cumulative environmental impacts to the State from energy-related
15 activities, as well as research projects supported by PPRP, such as the Utility
16 Tree Program and transmission line biological survey methods. A brief
17 statement of my educational background, occupational history, and
18 professional qualifications is attached to this testimony as Appendix A.

19 **Q. WHAT ARE YOUR RESPONSIBILITIES IN YOUR CURRENT POSITION?**

20 A. I provide technical and administrative direction on a variety of environmental
21 assessment projects and tasks performed by PPRP staff and consultants related to
22 electricity generation projects. My responsibilities include directing the
23 evaluation and analyses necessary to provide a comprehensive assessment of
24 environmental and socioeconomic impacts associated with the construction and
25 operation of electric generating facilities. As Program Manager, I am responsible

for leading the Certificate of Public Convenience and Necessity (CPCN) licensing reviews of new electric generation projects before the Public Service Commission (PSC), in which I coordinate the project review with other State agencies, prepare written testimony, and serve as expert witness in CPCN proceedings.

Q. WHAT IS YOUR ROLE AS A PROJECT MANAGER IN THE CPCN PROCESS?

A. With respect to applications for a CPCN for new or modified transmission or generation facilities, I oversee a comprehensive independent environmental and socioeconomic review of such projects and coordinate the development of recommended license conditions that are submitted to the PSC. This process is described in Maryland's Power Plant Siting Act of 1971, Chapter 31 of the Laws of Maryland of 1971, which, along with Maryland's Environmental Policy Act, requires the PSC to consider a broad range of socioeconomic, environmental, health, safety, and system reliability impacts associated with proposed power plants, and new or modified overhead electric transmission lines in excess of 69,000 volts. PPRP coordinates the review of such projects with other units within DNR and other State agencies, including Maryland's Departments of Agriculture, Commerce, Environment, Planning (including the Maryland Historical Trust), and Transportation, and the Maryland Energy Administration (collectively, the "reviewing State agencies").

PPRP is supported by contractors that address economic (Exeter Associates), atmospheric (ERM, Inc.), biological (Versar, Inc.), and engineering (ERM, Inc.) issues. Under my direction, appropriate members of these staffs participated in the reviews and evaluations of the documents submitted by the applicant and participated in field investigations.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide the PSC with a summary of the findings and initial recommendations resulting from PPRP's evaluation of the Citizens UB Solar, LLC (Citizens UB Solar or applicant) CPCN application to construct a solar photovoltaic (PV) facility in Carroll County, Maryland. This project is referred to as the Citizens UB Solar project (project). My testimony summarizes PPRP's evaluation of the solar project, and recommendations for the initial license conditions that were prepared in coordination with the reviewing State agencies.

Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF THE PROPOSED PROJECT.

A. Citizens UB Solar proposes to build an 8.2-megawatt (MW) alternating current (AC) solar PV project in Carroll County, Maryland. The solar array will use a fixed tilt racking system. In addition to the approximately 24,375 solar PV panels, the facility components will also include racking system, direct current (DC) to AC power inverters, two transformers, control and distribution cabinets, a medium-voltage collection system, and other equipment necessary to interconnect to the PJM Interconnection, LLC (PJM) distribution system.

Q PLEASE PROVIDE A BRIEF DESCRIPTION OF THE SITE FOR THE PROPOSED PROJECT.

A. The Project will be located on South Main Street/Green Valley Road (MD 75) in the Town of Union Bridge and Carroll County, Maryland. The project will be constructed on a portion of a 195-acre property located on both sides of MD 75. The property, which Citizens UB Solar purchased from the Kilfadda Corporation, consists of 100 acres in Frederick County, 68.3 acres in Carroll County, and 26.5 acres within the Town of Union Bridge. The project was initially proposed by the applicant to be constructed on a 95-acre portion of the property, but Citizens UB Solar revised the project site to be located on only a 65-acre portion of the 195-acre property.

The 65-acre project site is predominately within an unincorporated area of Carroll County, with a small section located within the Town of Union Bridge. To the west of MD 75, the project will be located on an approximately 61-acre portion of the parcel, directly north of the Kilfadda Farm (Kilfadda parcel). To the east of MD 75, the project will be located on a 3.8-acre portion of the parcel, which is adjacent to the Lehigh Portland Cement Company (Lehigh parcel). The Lehigh parcel will be electrically connected to the rest of the project via an underground cable directionally drilled under MD 75.

The Project site is zoned by Carroll County as Restricted Industrial, General Industrial, and Conservation. The small area of the project within the Town of Union Bridge is zoned Industrial Restricted. Solar arrays will only be located on land within Carroll County zoned General Industrial or Restricted Industrial. The limit of disturbance for the project will avoid all areas of the property zoned Conservation. In addition, only the perimeter road and fencing for portions of the project are proposed to be located within the Town of Union Bridge. Utility-scale solar is a permitted use within the industrial zoned areas of Carroll County.

The project site is bisected by an abandoned railroad right-of-way (ROW) that is now a forested line that separates the agricultural fields. The applicant successfully negotiated a Termination of Easement Agreement between the Central Railroad of Maryland and the Kilfadda Corporation. In addition to the forested railroad ROW, the project site includes forested areas that include wetlands, to the west and south of the proposed solar panel arrays. Wetland avoidance will be achieved by establishing a 35-foot setback from the drip line of all forested areas surrounding and bisecting the project. During field visits on August 2, 2017 and September 20, 2017, the Maryland Department of the Environment (MDE) confirmed that no wetlands extend into the project's defined limits of disturbance as proposed.

Portions of the project perimeter fence and road are located within the 100-year floodplain. The applicant submitted a letter to the MDE Waterway Construction Division on March 20, 2019 indicating that a hydrologic study was not necessary for the project, since the fence and road installations will not alter the grades of the floodplain. MDE found this to be acceptable and did not require a hydrologic study.

Q. HOW DOES THE APPLICANT PLAN ON DELIVERING ELECTRICITY TO THE POWER GRID?

A. The project site is located directly south of multiple transmission line ROWs to the Carroll Substation. The project will avoid placing solar panels in the transmission line ROWs. The electricity produced by the project will be delivered through Potomac Edison into the PJM distribution system via an overhead line tap to the 34.5 kV transmission line between the Carroll and Mt. Airy Substations.

Q. HAS THE APPLICANT PROVIDED ANY DOCUMENTS CONTAINING ITS ENVIRONMENTAL AND SOCIOECONOMIC ANALYSIS OF THE PROPOSED PROJECT?

A. Yes. Citizens UB Solar described its environmental and socioeconomic analyses of the potential effects of the proposed project in its CPCN application and associated Environmental Review Document (ERD), direct testimony, amended ERD, and responses to PPRP data requests.

Q. HAS PPRP PERFORMED AN INDEPENDENT ENVIRONMENTAL AND SOCIOECONOMIC EVALUATION OF THE PROPOSED PROJECT?

A. Yes. PPRP has performed an independent environmental and socioeconomic evaluation of the proposed project based on our review of application materials and testimony provided by Citizens UB Solar. PPRP gathered information

1 necessary to verify the evaluations that Citizens UB Solar included in its
2 application. PPRP also participated in a field review of the project site on July 31,
3 2018.

4 **Q. WHAT IS THE STATUS OF PPRP'S ENVIRONMENTAL AND**
5 **SOCIOECONOMIC EVALUATION OF THE PROPOSED PROJECT?**

6 A. This filing represents a summary of the technical and environmental analyses of
7 the proposed project completed to date, as well as conclusions and initial
8 recommendations.

9 **Q. ARE PPRP AND OTHER INTERESTED STATE AGENCIES FILING INITIAL**
10 **RECOMMENDED LICENSE CONDITIONS WITH THE PUBLIC SERVICE**
11 **COMMISSION AND THE PARTIES OF RECORD FOR THIS**
12 **PROCEEDING?**

13 A. Yes, PPRP is including the initial recommended license conditions along with the
14 Secretarial Letter, which is PPRP Exhibit __ (FSK-2) and is being filed along
15 with my direct testimony. PPRP developed these recommended conditions in
16 coordination with the reviewing State agencies. These initial recommended
17 conditions have been approved by the Secretaries and Director of these seven
18 State agencies. The reviewing State agencies may amend, add to, or delete these
19 initial recommended license conditions in the final recommended conditions
20 submitted by PPRP to the PSC, as necessary, to address any issues and impacts
21 that may arise as a result of the hearings. However, unless additional issues arise
22 requiring such modifications, the proposed initial license conditions submitted in
23 PPRP Exhibit __ (FSK-2) will serve as the State's final recommended conditions
24 to be incorporated into any order issuing a CPCN in this case.

Q. IN DEVELOPING THE INITIAL RECOMMENDED LICENSE CONDITIONS, WHAT IMPACTS OF THE PROPOSED PROJECT DID PPRP CONSIDER?

A. PPRP has examined the potential environmental impacts of the proposed project on vegetation resources; wildlife; and rare, threatened and endangered species. Also, PPRP has examined the potential socioeconomic impacts of the project to economic and fiscal issues, transportation, land use, historic and archaeological sites, public services and safety, and property values. In addition, PPRP examined the visual impacts, and the noise and electromagnetic field impacts from the proposed project.

Q. BASED ON PPRP'S EVALUATION, WHAT ARE YOUR CONCLUSIONS REGARDING THE VIABILITY OF THE PROPOSED PROJECT?

A. PPRP believes that the proposed project is viable for the following reasons. Maryland has several policies that encourage the deployment of solar energy systems. The first is the State's Renewable Portfolio Standard (RPS) that calls for 50 percent renewable energy by 2030, including 14.5 percent that must come from solar energy sources. Accordingly, utilities must purchase solar generation or face penalties of up to \$100 per MWh (declining through time), providing a financial incentive to homeowners, business, and independent developers to install solar renewable energy systems. The RPS is not the lone policy mechanism providing incentives for the development of solar power in Maryland. Also available are State tax credits, grants, loans, and rebate programs.

Currently, there are two primary solar electricity generating technologies — solar PV and concentrating solar power (CSP). The proposed project will utilize solar PV technology. A solar PV system consists of the solar modules (also known as

panels), a mounting system (in this case a ground mount system), and an inverter to convert the DC electrical current to AC for household or commercial consumption. Citizens UB Solar would install 24,375 PV panels on approximately 65 acres of land for the project. The project will generate 8.2 MW of AC solar PV power. Citizens UB Solar will deliver its produced electricity to the PJM power grid by an overhead line tap to an existing Potomac Edison distribution line that connects the Carroll and Mt. Airy Substations.

Solar PV projects require open land free from shading impacts caused by nearby trees and high buildings. The proposed property meets this criterion, with only limited tree coverage and sufficient land area not impacted by building shading. The solar PV technology is sound and well tested, with thousands of megawatts of electricity being generated via solar PV technology throughout the United States. Assuming that the remaining approvals and financing are successfully obtained, the Citizens UB Solar project appears to be a viable project in support of the Maryland RPS.

Environmental Impact Assessment

Q. PLEASE DESCRIBE THE EXISTING VEGETATION ON THE PROJECT SITE.

A. The project site consists of approximately 65 acres of mostly agricultural fields on a single parcel. The majority of the site is planted annually with conventional row crops. In addition, there are several small, segregated forested areas surrounding the project, and a narrow forested area around the abandoned railroad right-of-way that bisects the site. These forests total approximately 9.5 acres of the project site.

Q. WOULD CONSTRUCTION AND OPERATION OF THE PROJECT RESULT IN IMPACTS TO VEGETATION RESOURCES?

A. No. Construction and operation of the proposed project would not result in disturbance or removal of existing vegetation resources. Construction of the solar panels would restrict the types of vegetation that could be allowed to grow during the operational lifetime of the solar facility but would not have permanent detrimental effects on the soils or future use as farmland. On the positive side, the applicant's plans to plant and maintain the entire site with a low cover grass and white clover that would retain the soil in place and over time could replenish soil organic matter and essential plant nutrients. Incorporating wildflower seed mixes into the planting plan can provide additional benefits for pollinator species.

Q. DOES THE STATE RECOMMEND ANY LICENSE CONDITIONS WITH RESPECT TO VEGETATION MANAGEMENT?

A. Yes. PPRP recommends a vegetation management program that, while being consistent with the goals and purpose of the project, can preserve the natural resources of the site and create wildlife and pollinator habitat. The reviewing State agencies have recommended a license condition that specifies that the areas beneath and between the solar panels be planted with native, warm-season grasses and that a grounds management plan be developed (Vegetation Management Plan Recommended License Condition). The plan is to include a description of the species to be planted, the mowing schedule and grass height, a protocol for managing invasive species, and details regarding the use of herbicides and pesticides. Restricting mowing during some periods and maintaining grass height will also create nesting habitat for some birds and provide cover and food for other animal species found in a natural grasslands ecological community. Additionally, the reviewing State agencies recommend the project use native flowering plants to establish pollinator habitat on the project site (Pollinator Habitat Recommended License Condition).

1 **Q. DOES THE FOREST CONSERVATION ACT APPLY TO THE PROJECT?**

2 A. Yes. Under the requirements of Maryland's Forest Conservation Act (FCA; Md.
3 Code, Sections 5-1601 through 5-1613 of the Natural Resources Article), and the
4 Carroll County Code of Ordinances (Title XV, Chapter 150, Sections 150.20
5 through 150.41) a site proposed for development encompassing 40,000 square
6 feet (approximately 1 acre) or greater is subject to FCA and will require a Forest
7 Conservation Plan prepared by a licensed forester, licensed landscape architect,
8 or other qualified professional. The applicant must submit to the reviewing
9 authority (in this case, Carroll County) a Forest Stand Delineation and a Forest
10 Conservation Plan. Not clearing forest areas, or having little or no forest on-site,
11 does not exempt a utility development from the afforestation requirements of the
12 FCA. Mitigation requirements may include, but are not limited to, onsite
13 retention or planting, off-site retention or planting, natural regeneration, or
14 payment in lieu.

15 **Q. WHAT ARE THE STATE'S RECOMMENDATIONS WITH RESPECT TO**
16 **FOREST CONSERVATION?**

17 A. The reviewing State agencies recommend that the project complies with the
18 Carroll County Forest Conservation Ordinance (Forest Conservation
19 Recommended License Condition). The applicant's Forest Conservation
20 Worksheet (dated May 1st, 2019) provided in response to PPRP Data Request No.
21 5-12 (dated May 7th, 2019) suggests that the project as proposed meets the
22 afforestation threshold.

23 **Q. PLEASE DESCRIBE THE IMPACTS TO WILDLIFE THAT WOULD RESULT**
24 **FROM CONSTRUCTION AND OPERATION OF THE PROJECT.**

25 A. The proposed Citizen's UB Solar project site currently offers little wildlife
26 habitat. Construction of the solar panels would not destroy any existing habitat

or disturb the existing forested areas. During the operational lifetime of the project, PPRP anticipates that the applicant's plan to establish a permanent grass and clover cover throughout the site below and between the solar panels will have a positive impact on wildlife, encouraging colonization or use by grassland and pollinator species.

Q. ARE THERE ANY KNOWN LISTED THREATENED OR ENDANGERED SPECIES PRESENT ON OR ADJACENT TO THE SITE?

A. No. The response letter from Department of Natural Resources (DNR) Wildlife and Heritage Service (dated June 27, 2017), states that no State or Federal records for rare, threatened, or endangered (RTE) species were located in the project area.

Q. DOES THE STATE RECOMMEND ANY LICENSE CONDITIONS WITH RESPECT TO WILDLIFE?

A. Yes. The reviewing State agencies have recommended license conditions that are intended to protect wildlife habitat while addressing vegetation management (Vegetation Management Plan Recommended License Condition), potential RTE species (RTE Species Recommended License Condition), and pollinator habitat (Pollinator Habitat Recommended License Condition).

Q. WOULD CONSTRUCTION AND OPERATION OF THE PROJECT RESULT IN IMPACTS TO WETLANDS OR STREAMS?

A. The project drains to Sam's Creek in the Monocacy River watershed. Although Sam's Creek borders the project to the South and West, there are no streams, wetlands, or ditches located within the limits of disturbance. As proposed, construction and operation of the project will have minimal negative impacts on streams near the project site, which are currently subjected to uncontrolled runoff from agricultural fields. To prevent adverse effects from construction-

1 related stormwater runoff, the applicant should use standard Best Management
2 Practices (BMPs) and implement an Erosion and Sediment Control (ESC) Plan
3 that contains appropriate stormwater quality and quantity control measures. An
4 ESC plan will be required for any grading on the project site. Practices and plans
5 should be appropriate for the slopes present on the project site. The applicant's
6 plan to maintain vegetation beneath and between the solar panels after
7 construction may reduce runoff compared to an agricultural field, thereby
8 improving the water quality leaving the site.

9 **Q. DOES THE STATE RECOMMEND ANY LICENSE CONDITIONS WITH**
10 **RESPECT TO STREAM RESOURCES?**

11 A. Yes. The reviewing State agencies have recommended a license condition that
12 the applicant employ erosion and sediment control BMP standards and actions
13 (Sediment Control Recommended License Condition). Specifically, the applicant
14 should follow those practices outlined in the MDE document titled, 2011
15 Maryland Standards and Specifications for Soil Erosion and Sediment Control, as
16 approved by Carroll County. Grading should be designed to minimize
17 hydrological changes to the surrounding streams and wetlands, and retain
18 topsoil (Grading and Stormwater Management Recommended License
19 Condition). Additionally, soil compaction should be managed to ensure proper
20 post-runoff characteristics (Soil Compaction Management Recommended
21 License Condition).

22 **Q. WOULD CONSTRUCTION AND OPERATION OF THE TRANSMISSION**
23 **INTERCONNECT RESULT IN ANY BIOLOGICAL IMPACTS?**

24 A. The project is adjacent to the Carroll Substation, and will connect with the
25 Potomac Edison distribution network through an overhead tap line on an
26 existing 34.5 kV circuit. As currently designed, the transmission interconnection
27 for the project would not entail any tree cutting or impacts to wetland, streams,

or other environmental resources.

Q. WHAT ARE PPRP'S CONCLUSIONS REGARDING THE PROJECT'S IMPACT ON NATURAL RESOURCES?

A. PPRP concludes that there will be no significant impacts to environmental resources if the project is constructed as proposed. Reviewing State agencies have included recommended license conditions to assure that no significant impacts occur and that the project is constructed and operated consistent with appropriate environmental guidelines.

As discussed above, PPRP assessed the potential environmental effects of the proposed project on biological resources, including vegetation; wildlife; rare, RTE species; and wetlands and streams. The project is located on existing agricultural fields. Post-construction vegetation will be managed under the panels to allow a pollinator-friendly species to grow, effectively maintaining the entire field in pervious surface. The species under the panels, as well as the plantings that will occur in the landscape buffers surrounding the facility will provide habitat for wildlife, and mitigation for stormwater impacts. No forest cutting will occur, and the applicant will comply with the Forest Conservation Act as implemented by Carroll County. There are no streams within the Project site. While there may be some local impacts to the area's wildlife, there is also potential for the encouragement of wildlife habitat, specifically pollinators, under the panels and within the landscape buffers. Also, there are no state or federal RTE species located on the project site. Finally, no impacts to forests or wetlands are expected from the proposed transmission interconnect line.

Economic, Demographic, and Fiscal Issues

Q. WHAT ARE YOUR CONCLUSIONS REGARDING THE ECONOMIC, DEMOGRAPHIC AND FISCAL IMPACTS OF THE PROPOSED PROJECT?

A. Construction will take 5 to 7 months and is slated to be completed in June 2020. During the peak construction period, the project will create approximately 40 to 60 direct design, management and construction jobs on-site or at remote locations. Most construction activities are not expected to require highly specialized skills. As a result, the project is likely to source most construction jobs from the local labor pool if area subcontractors competitively bid the work. This will have a positive effect on the local economy from construction worker payrolls and subsequent consumption expenditures, local purchases of common construction materials, and associated multiplier effects. Not all benefits will accrue to Maryland since specialized components, particularly PV panels, are manufactured elsewhere and will be imported into the State.

With most of the construction workforce within daily commuting distance, the project will have no effect upon population and housing, or on population-related public service provision. With public service levels largely unaffected, the net benefit of project construction will be positive for Carroll County and Maryland.

The project will have no on-site operations or maintenance (O&M) facilities, nor will it have a permanent O&M workforce. Fiscal benefits will be in the form of corporate income tax revenues to the State, real property tax revenue (to the extent that the project increases the value of real property), and a tax imposed on business personal property used to generate electricity.

Land Use

Q. WHAT ARE YOUR CONCLUSIONS REGARDING LAND USE IMPACTS DUE TO THE PROPOSED PROJECT?

A. Based on the applicant's revised Project Layout Map, dated May 2019, the project will be located primarily in an unincorporated part of Carroll County with a

1 small section of fencing and perimeter road located within the Town of Union
2 Bridge. The project will consume about 65 acres, including about 34 acres within
3 the Limit of Disturbance (LOD). The project is bisected by South Main
4 Street/Green Valley Road (MD 75), with the larger parcel (Kilfadda parcel) lying
5 west of MD 75 and a smaller parcel (Lehigh parcel) east of MD 75. The project is
6 bordered by residences and farmland to the south and southwest, and by
7 residences and the Lehigh Portland Cement Plant to the east. Much of the land
8 within the project's LOD is classified as prime farmland.¹ The project is not
9 located within the County's Priority Preservation Area or the Chesapeake Bay
10 Critical Area, but is within a Priority Funding Area. The project is not dependent
11 on State infrastructure funding.

12 The project property has been used for agricultural purposes for over 100 years
13 and also contains a National Register-eligible (NR-eligible) farmstead, Kilfadda
14 Farm, which I discuss later in my testimony. The areas slated for development
15 within Carroll County are zoned either Restricted Industrial or General
16 Industrial. Utility-scale solar generation facilities are permitted within the
17 industrial zoned districts of Carroll County. The part of the project within the
18 Town of Union Bridge is zoned Industrial Restricted. PPRP has determined that
19 the project, as designed, meets or is capable of meeting the requirements for solar
20 arrays contained within Carroll County's zoning code.

21 PPRP has concluded that Planning Commission Review by both the County and
22 the Town of Union Bridge is necessary to ensure that the final site plan complies
23 with all existing local laws, regulations, and ordinances, and provides a basis for
24 the issuance of building and grading permits. The reviewing State agencies
25 recommend a license condition requiring Citizens UB Solar to design the facility
26 in substantial conformity to Carroll County site plan requirements. Also, the

¹ Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses.

condition requires the applicant to receive site plan approval and obtain all required local permits and authorizations prior to the commencement of construction (Land Use Recommended License Condition). This would include any relevant requirements pursuant to the jurisdiction of Union Bridge and the portion of the project that would fall within the town limits.

Post-construction, the project is not expected to influence land uses of other properties in the area if the applicant adopts all recommended license conditions.

Transportation

Q. WHAT ARE YOUR CONCLUSIONS REGARDING TRANSPORTATION IMPACTS FROM THE PROPOSED PROJECT?

A. Transportation impacts on nearby roads will be limited to the construction period. According to the applicant's Project Layout Map, the primary entrance to the Kilfadda parcel will be an existing entrance to the Kilfadda Farm complex from Green Valley Road (MD 75), less than one-tenth of a mile north of Sam's Creek. The Lehigh parcel will be accessed from an entrance off MD 75 near the parcel's northern boundary. The map also shows an emergency entrance to the Kilfadda parcel from South Main Street north of the main entrance. Entrances for commercial or industrial site access (new or modified) from State highways will require access permits from Maryland Department of Transportation State Highway Administration (MDOT SHA) Access Management. The reviewing State agencies recommend a license condition requiring Citizens UB Solar to restrict site access to the two primary entrances unless approval is received from the PSC and PPRP for alternative temporary access points (Construction Traffic Recommended License Condition).

Construction worker traffic will increase background traffic volumes at the beginning and end of each workday, primarily on weekdays. However, few

1 automobiles and light trucks will be added daily to local roads. PPRP does not
2 expect that additional construction worker traffic will reduce the level of service
3 (LOS) on roads near the project, even if coincident with morning and evening
4 peak hour traffic.

5 Trucks will deliver all materials to the site. According to the applicant, if site
6 preparation activities are typical, project construction will require from 72 to 85
7 truck trips for the delivery of components and other construction materials, and
8 additional truck trips for the delivery of excavation, grading, and installation
9 equipment. The applicant's preliminary construction phasing plan limits
10 deliveries to between the hours of 9:00am and 2:00pm in order to minimize
11 disruption to commuter traffic. Trucks will be onsite for about two hours, and
12 no more than four trucks will be onsite at any given time. PPRP has concluded
13 that truck traffic will not affect existing motor vehicle traffic near the project site.

14 During construction, some loads transporting large excavation equipment and
15 cranes could be oversized or overweight. The MDOT SHA requires hauling
16 permits for transporting oversized or overweight loads on Maryland highways.
17 Interconnection to the grid will occur through a direct line tap to a 34.5 kV line
18 that traverses the property. This tie-line will not occupy State or County rights-
19 of-way (ROWs). However, the Lehigh parcel will be electrically connected to the
20 rest of the project via an underground cable directionally drilled under MD 75.
21 Occupancy of State highway ROWs is subject to MDOT SHA's utility policy. The
22 reviewing State agencies recommend a license condition requiring Citizens UB
23 Solar to comply with all permit requirements and restrictions for use, crossing,
24 and occupancy of State, County, and Town of Union Bridge roads (Road Permits
25 Recommended License Condition).

26 PPRP concluded trucks entering or exiting the site could affect nearby roads by
27 depositing dirt and debris from excavation or other construction activities. The

reviewing State agencies recommend a license condition requiring the applicant to monitor conditions on roads with direct access to the project, report any road damage caused by the project to MDOT SHA, and correct this damage within 48 hours (Road Damage Recommended License Condition).

Post-construction, the project will not be a significant traffic generator. Most traffic to the site during operations will be light vehicles.

Q. ARE THERE ANY OTHER MATTERS WITH REGARD TO POTENTIAL TRANSPORTATION IMPACTS FROM THE PROPOSED PROJECT?

A. Yes. Federal Regulation Title 14 Part 77 provides the Federal Aviation Administration (FAA) with the authority to conduct aeronautical studies of proposed activities that could affect airspace. These studies review physical incursions of proposed structures into airspace, interference with radar communications, and any other conditions such as glare that might negatively affect air traffic. Off-airport solar projects in the vicinity of an airport have the responsibility to inform the FAA about proposed projects so that the agency can determine whether the project presents any safety or navigational problems.

The closest airport to the project is Three J, a private-use airport with a turf runway, about 3.2 miles from the project. Carroll County Regional/Jack B. Poage Field Airport is the closest public use airport,² approximately 10 miles from the project. PPRP undertook a glare study on the flight paths into the runways of both Three J and Carroll County Regional Airports. PPRP has concluded that the project will not have an adverse effect upon air navigation.

Visual Quality

² A public use airport is an airport available for use by the general public without a requirement for prior approval of the airport owner or operator. FAA standards and notification requirements for objects affecting navigable airspace apply only to public use airports, military airports, and heliports.

Q. WHAT ARE PPRP'S CONCLUSIONS REGARDING THE PROPOSED PROJECT'S VISUAL IMPACTS?

A. The terrain of the project property is moderately rolling. Entering Union Bridge from the south, views currently encompass fields of conventional crops to the left where the bulk of the project would stand, and an electrical substation in the background. A woodland edge borders two sides of the Kilfadda parcel where there is no public access. A thin woodland edge separates the Kilfadda farmhouse and outbuildings from cultivated fields. Just north of the Lehigh parcel, the entrance to the Town is framed by a cemetery and church, followed by residential and commercial uses.

According to the applicant, the top edge of the solar array will be approximately 10 feet above ground. The revised Project Layout Map indicates that the proposed array layout will maintain a 75-foot setback from MD 75. The reviewing State agencies recommend a license condition requiring Citizens UB Solar to certify to the PSC and PPRP that setbacks conform to setback requirements as annotated in §158.153(D)(3) of the Carroll County Code, as applicable. Also, the setbacks must be reviewed and approved by Carroll County before construction begins (Setbacks Recommended License Condition).

The applicant states that, where necessary, 50-foot screening buffers of native evergreen trees or shrubs will be installed to minimize adverse visual impacts. A formal landscaping plan has not yet been provided to PPRP. However, the applicant's Project Layout Map shows landscape buffers on both sides of MD 75 where the project abuts the road. No other perimeter landscaping is indicated.

PPRP estimated the visual extent of the project taking into account bare earth terrain elevations, areas of mature forest, nearby buildings, proposed landscape buffers, and physical characteristics of the array. In general, views of the topmost parts of the project (such as array edges, inverters, perimeter fencing)

1 are expected to extend to homes and businesses near the southern limits of
2 Union Bridge, to traffic on MD 75, and to properties surrounding the site.
3 Mature woods mitigate most views from the west. A woodland edge blocks
4 views of some arrays from the south, but is not sufficient to mitigate views from
5 the Kilfadda Farm, which sits near the project parcel's southern LOD.

6 As landscape plantings mature, the project's visual footprint will contract
7 slightly. However, where no landscape buffers are proposed, views of the
8 project will be unchanged. Properties not protected by landscaping include
9 some homes north of Whyte Street and West Locust Street, Union Bridge Church
10 of the Brethren, Mountain View Cemetery and some of South Main Street, which
11 is part of the Old Main Streets scenic byway. Views from some of these locations
12 are already compromised by the Lehigh Cement Company facilities and the
13 Potomac Edison substation, but will now contain another industrial element,
14 extensive in area if not in height.

15 In consultation with the Maryland Historical Trust (MHT), PPRP concluded that
16 the applicant's proposed landscaping is inadequate for screening the project
17 from nearby properties, is inconsistent with the community's vision emphasizing
18 the preservation of historic characteristics, and is insufficient to preserve the
19 setting of the Kilfadda Farm. A landscape buffer will need to be created along
20 the northern edge of both the Kilfadda parcel and the Lehigh parcel to mitigate
21 views from Union Bridge. Additional buffering around the Kilfadda Farm will
22 also be necessary. The reviewing State agencies recommend a pair of license
23 conditions requiring Citizens UB Solar (a) to develop a landscape buffer plan that
24 mitigates views, to the extent practicable, from all adjacent public roads,
25 residential properties, and cultural landmarks in a manner consistent with
26 MHT's buffer recommendations; and (b) to address issues of non-compliance
27 with licensing conditions, such as complaints related to visual impacts
28 (Landscape Buffer Recommended License Condition and Visual Impact

Complaint Resolution Recommended License Condition).

Carroll County landscape regulations include a maintenance agreement for the landscape plan with a surety or other financial assurance to cover replacement of plantings or associated irrigation systems. The reviewing State agencies recommend a pair of license conditions requiring Citizens UB Solar to execute a landscape maintenance plan that conforms with §157.20(K) and §157.21 of the Carroll County Code and submit a copy of the agreement with a surety or other financial assurance to the PSC and to PPRP (Landscaping Maintenance Agreement and Landscaping Surety Agreement Recommended License Conditions).

The project has few lighting requirements although outdoor lighting may be necessary for security or to satisfy OSHA statutory requirements for worker safety. Carroll County will address outdoor lighting during site plan review. The reviewing State agencies recommend a license condition requiring Citizens UB Solar to certify to the PSC and to PPRP that it has received approval of its outdoor lighting distribution plan from Carroll County during Site Plan review (Outdoor Lighting Recommended License Condition).

PPRP undertook a glare analysis of the Project estimating the intensity, time of day, and duration of glare upon nearby residences and public roads, assuming no tracking, fixed-tilt panels set at 20° (as proposed by the applicant) and no landscaping along exposed edges of the property. The analysis suggests, in the absence of effective landscaping, some areas within the Town of Union Bridge, areas south of the project, and traffic along Green Valley Road could experience a moderately strong intensity of glare³ for extended periods in non-winter months. Locations particularly affected include the Kilfadda Farm complex, Union Bridge Church of the Brethren, and Mountain View Cemetery. PPRP notes that glare

³ Glare with a potential to induce a temporary after-image within the receptor's vision.

upon Green Valley Road has motor vehicle safety implications. The reviewing State agencies recommend a license condition requiring Citizens UB Solar to construct a temporary, opaque buffer to mitigate glare impacts on nearby public roads until the approved landscape buffer matures enough to completely block the sun's reflections (Glare Mitigation Recommended License Condition). The reviewing State agencies also recommend a license condition requiring Citizens UB Solar to address complaints related to potential solar reflections (Visual Impact Complaint Resolution Recommended License Condition).

Cultural and Aesthetic Resources

Q. WHAT ARE YOUR CONCLUSIONS REGARDING IMPACTS ON HISTORICAL AND CULTURAL RESOURCES FROM THE PROPOSED PROJECT?

A. There are four properties on the National Register (NR) of Historic Places within one mile of the project site, the closest being the Union Bridge Historic District. Several additional properties on the Maryland Inventory of Historic Properties (MIHP) are within one mile, including the 18th century Kilfadda Farm, which sits on the project parcel and is still in use. No preservation easements held by the MHT are within one mile.

Q. HAS MHT PROVIDED ANY RECOMMENDATIONS BASED ON ITS REVIEW OF THE PROJECT?

A. In its review of the project, MHT noted that the project area contains three items of archeological importance, and the NR-listed Union Bridge Historic District is adjacent to the project site along its northern and eastern boundaries. After reviewing project documentation, MHT recommended a Phase I archeological investigation of all planned disturbance areas, and requested the applicant submit a Determination of Eligibility (DOE) form for the Kilfadda Farm complex.

Following the applicant's submission of required materials, the MHT concluded none of the archeological sites were eligible for listing on the National Register, but the Kilfadda Farm was NR-eligible. Furthermore, the project, as currently proposed, will have an adverse effect on the property. To mitigate the impact on the Kilfadda Farm complex, MHT has requested the applicant consider additional landscaping between the project and Kilfadda farmhouse.

Q. WHAT LICENSE CONDITIONS HAVE REVIEWING STATE AGENCIES RECOMMENDED TO INCORPORATE MHT'S REVIEW AND CONCERNS?

A. The Landscape Buffer Recommended License Condition incorporates MHT's request. In addition, the reviewing State agencies recommend a license condition requiring Citizens UB Solar supplement the property's DOE form with additional documentation (Documentation of Historic Resources Recommended License Condition).

In the event that relics or unforeseen archeological sites are revealed and identified during construction, the reviewing State agencies recommend a license condition requiring Citizens UB Solar, in consultation with and as approved by MHT, to develop and implement a plan for avoidance and protection, data recovery, or destruction without recovery of such relics or sites (Archeological Discoveries Recommended License Condition).

Q. DOES THE PROJECT IMPACT A MARYLAND HERITAGE AREA?

A. Yes, the project is within the Heart of the Civil War Heritage Area (HCWHA). In its review, MHT concluded the project, as currently proposed, will have an adverse effect on the HCWHA by adding a new visual element with the potential to alter the character and general aesthetics of the area. Pursuant to its statutory responsibility, PPRP consulted with the HCWHA "management unit" to consider what steps could be taken to mitigate this impact. Based on these

discussions, the reviewing State agencies developed a condition that extends landscape buffers around the Kilfadda parcel, along South Main Street and along the northern edge of the Lehigh parcel to mitigate views from Green Valley Road and the project's impact on the HCWHA.

Q. DID THE HCWHA HAVE OTHER CONCERNS ABOUT THE PROJECT'S POTENTIAL ADVERSE IMPACTS TO THE HERITAGE AREA?

A. Yes, HCWHA also requested enhancements to the entry to the Union Bridge Historic District and additional mitigation regarding Kilfadda Farm, the Union Bridge Toll House site, and Civil War-related material. Further discussion to determine how to address these concerns will require negotiation between the parties. The reviewing State agencies are recommending a license condition requiring Citizens UB Solar to address the mitigation strategies suggested by HCWHA (HCWHA Recommended License Condition).

Q. HAS THE REVIEWING STATE AGENCIES RECOMMENDED ANY OTHER CONDITIONS TO ADDRESS CULTURAL AND AESTHETIC IMPACTS?

A. Yes. Maryland's Old Main Streets Scenic Byway bypasses the project site on Green Valley Road. While the Landscape Buffer Recommended License Condition is expected to mitigate views of the project from the byway, the reviewing State agencies recommend a license condition requiring Citizens UB Solar to consult with the MDOT SHA Scenic Byways Coordinator to ensure that the project maintains and enhances the byway's visual quality (Scenic Byways Coordination Recommended License Condition).

Also, recommended conditions are included to address the safety of cyclists on the State bikeway corridor in the area of Union Bridge. MDOT SHA has designated MD 75 in the vicinity of Union Bridge as a State bikeway corridor. PPRP has concluded that additional truck traffic delivering supplies and services

1 could compromise the safety of cyclists on MD 75 and nearby bicycle routes. The
2 reviewing State agencies recommend a license condition requiring Citizens UB
3 Solar and its contractors to be aware of on-road bicycle route designations near
4 the project and Maryland traffic laws regarding bicycles on the road (Cycling
5 Safety Recommended License Condition). In addition, the reviewing State
6 agencies recommend a license condition requiring Citizens UB Solar certify to the
7 PSC and PPRP that it has consulted with the MDOT SHA Bicycle and Pedestrian
8 Coordinator to assure that activity during construction is conducted in a manner
9 that minimizes conflict with bicyclists (MDOT SHA Bicycle and Pedestrian
10 Coordination Recommended License Condition).

11 Public Services and Safety

12 **Q. WHAT ARE YOUR CONCLUSIONS REGARDING IMPACTS ON PUBLIC**
13 **SERVICES AND SAFETY FROM THE PROPOSED PROJECT?**

14 A. During construction and operation, no additional public services will be required
15 to support the project under normal conditions. In the event of a fire or accident
16 at the facility, the Carroll County Department of Public Safety will dispatch
17 emergency responders. The closest fire company to the project site is the Union
18 Bridge Fire Company. The Office of the Sheriff is the primary law enforcement
19 agency in Carroll County.

20 Fire prevention guidance for ground-mounted PV installations is contained
21 within the National Fire Protection Association's (NFPA) NFPA 1 Fire Code
22 Handbook and NFPA 70 National Electrical Code. The reviewing State agencies
23 recommend a license condition requiring Citizens UB Solar to design, install and
24 maintain the project to meet the minimum standards set forth in NFPA 1 and
25 NFPA 70 (Fire Safety Recommended License Condition).

26 Although the likelihood of fire is low, there are unique challenges facing

1 firefighters at PV facilities. Carroll County's fire and rescue is a mostly volunteer
2 system where standard operating procedures or guidelines may not currently
3 address operations at PV facilities. The reviewing State agencies recommend a
4 license condition requiring Citizens UB Solar to contact the Union Bridge Fire
5 Company and the Carroll County Department of Public Safety to develop
6 appropriate protocols for addressing on-site emergencies (Emergency
7 Preparedness Recommended License Condition).

8 Property Values

9 **Q. WHAT ARE YOUR CONCLUSIONS REGARDING IMPACTS ON**
10 **PROPERTY VALUES FROM THE PROPOSED PROJECT?**

11 A. With a minimal vertical profile and proposed buffering along parts of the
12 perimeter of the site, the project will be largely out of sight from nearby
13 properties. The project's operation will not emit significant traffic, noise, air or
14 water pollutants, nor will it generate any hazardous waste that could potentially
15 affect public health. At the end of the facility's useful life, a decommissioning
16 plan will return the project site to its original state. In other words, the local
17 environment will be minimally affected by the project. That the proposed facility
18 will have a moderately benign local presence once the facility is operational
19 suggests that property values will be unaffected by the project.

20 Noise Impact Assessment

21 **Q. WHAT ARE YOUR CONCLUSIONS REGARDING NOISE IMPACTS FROM**
22 **THE PROPOSED PROJECT?**

23 A. Noise generally consists of many frequency constituents of varying loudness.
24 Three decibels (dB) is approximately the smallest change in sound intensity that
25 can be detected by the human ear. A tenfold increase in the intensity of sound is
26 expressed by an additional 10 units on the dB scale, a 100-fold increase by an

1 additional 20 dB. Because the sensitivity of the human ear varies according to
2 the frequency of sound, a weighted noise scale is used to determine impacts of
3 noise on humans. This A-weighted decibel (dBA) scale weights the various
4 components of noise based on the response of the human ear. However, sound
5 energy dissipates with increasing distance from the noise source. For every
6 doubling of the distance, the sound pressure level produced by a given noise
7 source decreases by approximately 6 dBA.

8 The maximum allowable noise levels specified in Maryland regulations
9 (COMAR 26.02.03) vary with zoning designation and time of day. The noise
10 limit for residential areas is 55 dBA during nighttime hours and 65 dBA during
11 daytime hours. The regulations also allow for construction activity to generate
12 noise levels up to 90 dBA during daytime hours, but the nighttime standard may
13 not be exceeded during construction. A noise source should not create noise that
14 exceeds the allowable levels, as measured at the receiving property.

15 Operational noise from PV facilities is typically low. The PV panels and support
16 equipment do generate some noise, primarily associated with the power
17 inverters and electrical transformers. Measured noise levels from the PV arrays
18 are expected to decline to ambient background noise levels at distances between
19 50 and 150 feet. The nearest residence to any of the project panels was calculated
20 by PPRP to be approximately 760 feet. Given this distance, the solar array will
21 not create any discernible noise at the residential receptor. All nearby residences
22 are located at sufficient distances from the inverter pads that the noise generated
23 by the solar facility will be below ambient background noise levels. Construction
24 of the solar facility will generate noise during daytime hours; this will be a
25 temporary impact.

26 Carroll County has additional regulations around sensitive receptors. The
27 proposed solar array is located adjacent to Union Bridge Church of the Brethren,

1 which qualifies as a sensitive receptor. The county specifies maximum allowable
2 noise limits measured at the property line of sensitive receptors. The closest
3 panel at the proposed solar facility is located approximately 175 feet from the
4 property line of Union Bridge Church of the Brethren. At this distance, noise
5 generated by the solar facility is not expected to have a significant impact at
6 sensitive receptors.

7 PPRP's recommended license conditions would require that the construction and
8 operation of the proposed solar facility comply with the State's regulatory
9 standards of 65 dBA (day) and 55 dBA (night), and the 90 dBA level during
10 daytime construction (Applicable Laws and Regulations Recommended License
11 Condition). Operation must also adhere to county regulations to prevent any
12 noise disturbance in exceedance of allowable limits at sensitive receptors.

13 PPRP conducted an independent evaluation of the potential noise impacts
14 expected to occur during construction and operation of the proposed facility.
15 PPRP concluded that, based on the available information, the project will comply
16 with both the construction and operational noise limits.

17 **Electromagnetic Field Impact Assessment**

18 **Q. WILL THE PROJECT CREATE ANY HUMAN HEALTH IMPACTS DUE TO**
19 **ELECTROMAGNETIC FIELDS (EMF)?**

20 **A.** EMF levels, in particular magnetic field levels, from the proposed project are
21 projected to fall below threshold human health standards at a distance of 3 feet,
22 therefore the 50-foot buffer from the solar panels to the property line is sufficient
23 so that EMF levels from the project are not anticipated to pose a potential health
24 risk to nearby residents.

25 **Town of Union Bridge Opposition**

1 **Q. HAVE YOU REVIEWED THE DIRECT TESTIMONY OF MR. EDMUND R.**
2 **CUEMAN SUBMITTED ON BEHALF OF THE TOWN OF UNION BRIDGE**
3 **SETTING FORTH ITS OPPOSITION TO THE PROPOSED PROJECT AND**
4 **THE BASIS FOR THAT OPPOSITION?**

5 **A. Yes.**

6 **Q. PLEASE EXPLAIN THE REVIEWING STATE AGENCIES VIEW**
7 **REGARDING THE TOWN’S TESTIMONY.**

8 **A. Mr. Cueman indicates that the project is not consistent with the Town of Union**
9 **Bridge 2008 Comprehensive Plan, as amended in 2014 (Plan). Although mostly**
10 **outside the Town’s municipal boundary, with only part of the perimeter road**
11 **and fence located in Union Bridge, the project is within the Town’s Designated**
12 **Growth Area (DGA) and is considered a future annexation area. Mr. Cueman**
13 **states that the DGA occupied by the project should be used for ‘real property’**
14 **industrial development, which would be of greater benefit to the Town’s**
15 **financial health. In addition, the project’s proximity to the center of Town makes**
16 **it incompatible with the Plan’s objective to preserve the historic characteristics of**
17 **the Town.**

18 While initially a significant portion of the project was included in the Town,
19 currently, most project components are located in Carroll County. As the most
20 recent project layout plan indicates, most of the project components are now on
21 land zoned Restricted Industrial District (I-R) or General Industrial District (I-G).
22 Solar Energy Generation Systems (SEGS) are permitted by right in these
23 districts.

24 The part of the project within Union Bridge is zoned I-R, as defined in Article 12
25 of the Union Bridge Code. SEGS are not addressed in Union Bridge’s Zoning
26 Regulations, although §12.1.(3) allows “[a]ny other use that is determined by the

Board to be of the same general character as the above permitted uses, and which would not be detrimental to the public health, safety, or general welfare of the community, but not including any use which is prohibited in the I-R District.”

As noted in Mr. Cueman’s testimony, the project is located in a DGA. A DGA is a smaller geographic area centered around a municipality. The majority of Carroll County’s planned residential, commercial, and industrial development is currently concentrated within the County’s DGAs, and this is also where future growth is planned. While Mr. Cueman states correctly that the county does not designate land use within a DGA, it does assign zoning designation to parcels within the DGA. Development can occur on the county-zoned land (in a DGA) without being annexed into the town. While it is the county’s intent and preference for these lands to be annexed into the town, the county’s development review and zoning processes would apply to these DGA parcels at this time.

While the goal of the Town of Union Bridge is to attract ‘real property’ industrial development to the Kilfadda parcel, the existing design capacity (0.2 mgd) of the Union Bridge Wastewater Treatment Plant (WWTP) is, currently, a controlling limitation. Without constructing additional capacity or a new WWTP, static or no-growth is likely to continue.

Longer-term, the Bay-related nitrogen loading cap represents a 0.67-mgd limit to surface water discharges. This limit is exceeded by the projected infill + future (entire planned sewer service area) and buildout (entire DGA) wastewater demands. Currently, the WWTP is inside the Little Pipe Creek floodplain, which is subject to flooding. A preliminary expansion study of this area, completed in 2005, recommended construction of a new WWTP at a different location. As the Town itself acknowledges, providing additional WWTP capacity is its most essential infrastructure project.

The reviewing State agencies recognize the concerns the project, as amended,

1 presents for the Town. Except where the perimeter road is within its corporate
2 limits, the project generates no property tax revenues for the Town and, to date,
3 Citizens UB Solar refuses to annex the Carroll County parcels. As such, the
4 Town is left with an orphaned parcel, part of which is zoned I-R, with limited
5 development opportunities.

6 After undertaking an independent assessment of the project and considering the
7 Town's position as articulated in Mr. Cueman's testimony, the reviewing State
8 agencies have concluded the project would economically benefit Union Bridge if
9 the underlying project parcels in the DGA were annexed into the Town. It is an
10 industrial use with no water or sewer requirements, has a low visual profile and
11 significant landscaping (as proposed by the reviewing State agencies) that should
12 mitigate visual and glare effects upon the Town's historic gateway.

13 A similar situation occurred in the Cherrywood Solar I (PSC Case No. 9477)
14 CPCN case. Cherrywood Solar, located in Caroline County, was outside the
15 municipal boundaries of Greensboro and Goldsboro. However, three parcels
16 were within Greensboro's DGA and two were within its Priority Funding Area.
17 The town's comprehensive plan envisioned these and other parcels as targets for
18 annexation, which could be developed for mixed use residential and
19 employment uses following the opening of a new sewage treatment plant. For
20 this reason, the Town of Greensboro initially expressed its opposition to the parts
21 of the project located within its growth area. The Town, however, withdrew its
22 opposition after Cherrywood consented to annexation of the three parcels into
23 the Town.

24 The reviewing State agencies believe that there could be similar resolution in this
25 case. The Town of Union Bridge might withdraw its objections to the project if
26 Citizens UB Solar consented to annex the part of the project in the DGA into the

town's corporate limits. The reviewing State agencies remain hopeful that the parties will be able to resolve this matter with further discussion.

Recommendation

Q. WHAT IS THE STATE'S RECOMMENDATION CONCERNING THIS PROJECT?

A. In my opinion, the proposed project can be constructed and operated in accordance with applicable environmental laws and standards and in a way that minimizes environmental impacts. To assure this result, PPRP's Initial Recommended License Conditions that are provided in PPRP Exhibit FSK-2 should be incorporated into any CPCN that may be granted by the Commission for the construction and operation of the proposed project.

Q. DOES THAT CONCLUDE YOUR TESTIMONY AT THIS TIME?

A. Yes, it does.

APPENDIX A:
STATEMENT OF QUALIFICATIONS
for Frederick S. Kelley

Frederick S. Kelley has served as a project manager with the Maryland Power Plant Research Program (PPRP) since July 2012. Mr. Kelley is responsible for management, oversight and analysis of environmental impact assessments related to construction, operations, and maintenance of high voltage transmission lines and electrical generating facilities. Additional activities have included review and editing of Environmental Review Documents for transmission lines and power plants; managing contracts for projects supported by PPRP; editing and publishing PPRP's biennial Cumulative Environmental Impact Report (CEIR-17).

As an environmental consultant, Mr. Kelley has over 25 years of experience managing projects related to the siting, construction and operation of power plants with emphasis on potential impacts to terrestrial and aquatic resources including wetlands and streams, forests, wildlife and vegetation, and rare, threatened, and endangered species. He also managed and conducted research projects on power plant generation and transmission facilities affecting environmental resources in Maryland. Mr. Kelley has conducted environmental impact assessments in accordance with regulations implementing the National Environmental Policy Act (NEPA). For numerous federal clients, Mr. Kelley prepared NEPA documents including Environmental Assessments (EA) and Environmental Impact Statements (EIS) that evaluated potential impacts to environmental resources including noise, air quality, biological, aquatic, hydrologic, geologic, cultural and historic, and socioeconomic resources.

Education: B.S. Biology, University of Maryland, College Park, MD. 1989.