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***Via Hand Delivery and Electronic Mail***

February 14, 2013

Linda Roberts
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Petition No. 1042: Somers Solar Center, LLC Petition for a Declaratory Ruling that No Certificate of Environmental Compatibility and Public Need is Required for the Construction and Operation of a 5.0 MWac Solar Photovoltaic Project located at 458 & 488 South Road, Somers, Connecticut**

Dear Ms. Roberts:

Enclosed please find an original and twenty (20) copies of the Petitioner's Post-Hearing Brief in connection with the above-referenced proceeding.

Please feel free to contact me if you have any questions or require additional information. Thank you.

Sincerely,

Joey Lee Miranda

Enclosures

**CONNECTICUT SITING COUNCIL**
**PETITION NO. 1042**

IN THE MATTER OF:

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SOMERS SOLAR CENTER, LLC PETITION FOR A DECLARATORY RULING THAT NO CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED IS REQUIRED FOR THE CONSTRUCTION AND OPERATION OF A 5.0 MWAC SOLAR PHOTOVOLTAIC PROJECT LOCATED AT 458 & 488 SOUTH ROAD, SOMERS, CONNECTICUT

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# PETITIONER'S POST-HEARING BRIEF

Submitted by:

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*February 14, 2013*

# PETITIONER'S POST-HEARING BRIEF

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## EXECUTIVE SUMMARY

On October 31, 2012, Somers Solar Center, LLC ("SSC" or "Petitioner") filed a petition ("Petition") with the Connecticut Siting Council ("Council") for a declaratory ruling that a Certificate of Environmental Compatibility and Public Need ("Certificate") is not required for the construction, operation and maintenance of a ground-mounted solar photovoltaic facility of up to 5 megawatt ("MW") ac and associated equipment (the "Project") to be constructed on approximately ninety-five (95) acres located at 458 & 488 South Road, Somers, Connecticut (the "Property").

**THE PROJECT**

Section 127 of Public Act 11-80, *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future* (the "Act"), required the Connecticut Department of Energy and Environmental Protection ("DEEP") to review proposals by private developers to build, own or operate zero emission Class I renewable energy source generation facilities. Pursuant to this requirement, in December 2011, the DEEP conducted a request for proposals ("RFP") for projects from private developers for up to ten (10) MW of renewable generation. The Project was one of two selected by DEEP pursuant to the RFP.

The Project will use photovoltaic ("PV") module technology, which has been extensively tested, is in wide use across the solar industry and meets the traditional level of reliability reflected in the solar power generation industry. The Project will consist of the installation of approximately 31,000 PV panels, and associated ground equipment, upgrading of an access road, installation of perimeter maintenance/access roads and installation of an electrical interconnection. The Property will be accessed off of South Road. The entire Project will be surrounded by a six foot (6') chain linked fence and associated vehicle and man gates.

An electrical collector yard will be constructed on the Property. At the point of common

coupling with The Connecticut Light and Power Company ("CL&P"), Somers will provide a utility class circuit breaker or recloser equipped with a multifunctional relay to serve as the Interconnection Interruption Device. Revenue metering will be provided on the utility side of the breaker and a gang operated disconnect switch will be provided on the utility side of the meter. Additional equipment to monitor circuit voltage and to disconnect the facility from the grid will also be installed as needed on existing grid circuits to protect the system during system outage.

**PUBLIC BENEFIT**

A public benefit exists if a project "is necessary for the reliability of the electric power supply of the state or for a competitive market for electricity." (Conn. Gen. Stat. § 16-50p(c)(1)). The Project will generate much of its power at peak times, when the demand for electricity is greatest, and will thereby provide the electrical system with flexible peaking capacity that is necessary to keep the electrical grid stable.

Further, the Project supports the State's energy policies as set forth in Connecticut General Statutes section 16a-35k, including the goal to "develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent." The Project will provide clean, renewable, solar-powered electricity and assist the State in meeting its legislatively mandated obligations under the Renewable Portfolio Standard.

The Project will also assist the Town of Somers and State of Connecticut in reducing greenhouse gas emissions and reducing criteria air emissions pollutants associated with the displacement of older, less efficient, fossil fuel generation. As part of larger state, national and global strategies, reductions in greenhouse gas emissions from this Project will have long-term secondary biological, social and economic benefits. Similarly, the advancement of renewable

resources at a distributed level contribute to our Nation's desire for energy independence and reduces our dependency upon foreign countries where geo-political issues may not align with national policy or the virtues of democracy. The Project will also hire local labor, as practical, and be a source of increased revenue for local businesses during construction.

**NO SUBSTANTIAL ENVIRONMENTAL EFFECTS**

The Project will meet DEEP air and water quality standards. Further, the Project:

- Will not produce air emissions during operations (PM10, PM2.5, VOCs, GHG or Ozone);
- Will not utilize water to produce electricity or be in conflict with any Federal, State, or Local requirements related to water quality and quantity;
- Will not produce any appreciable noise;
- Was designed to avoid all wetland and biological impacts;
- Will employ a construction storm water management plan that will result in a minimal net increase in runoff; and
- Will not have substantial adverse visual, land use, recreational, cultural, human or biological impacts.

**CONCLUSION**

The unrefuted evidence presented during the course of this proceeding has established that the Project will meet DEEP air and water quality standards, provides significant benefits to the Town of Somers and the State of Connecticut and will not have a substantial adverse environmental effect. Accordingly, the Council should issue a declaratory ruling approving the Petition as submitted.

## I. INTRODUCTION

On October 31, 2012, Somers Solar Center, LLC ("SSC") filed a petition ("Petition") with the Connecticut Siting Council ("Council") for a declaratory ruling that a Certificate of Environmental Compatibility and Public Need ("Certificate") is not required for the construction, operation and maintenance of a ground-mounted solar photovoltaic facility of up to 5 megawatt ("MW") ac[1] and associated equipment (the "Project") to be constructed on approximately ninety-five (95) acres located at 458 & 488 South Road, Somers, Connecticut (the "Property"). (Exhibit ("Exh.") 1).

## II. PROCEDURAL BACKGROUND

On November 30, 2012, SSC provided notice of the Petition to federal, state and municipal officials. (Exh. 2; Exh. 3, Response ("Resp.") 3). On December 28, 2012, a sign, which complied with the requirements of the Regulations of Connecticut State Agencies section 16-50j-21(a)(3), providing notice of the hearing was posted at the site access driveway along Route 83. (Exh. 7).

The Council conducted an evidentiary and public hearing on the Petition on January 15, 2013. (01/15/13 Afternoon Transcript ("Tr. 1") at 2; 01/15/13 Evening Transcript ("Tr. 2") at 2). Prior to the afternoon session of the hearing, the Council and its staff visited the Property. (Tr. 1 at 46).

SSC now hereby submits this post-hearing brief pursuant to Section 16-50j-31 of the Regulations of Connecticut State Agencies ("R.C.S.A.") and the Council's directive. (Tr. 2 at

[1] Direct current (dc) is used for the transmission of electrical power and is the type of electric power produced by the solar panels (i.e., the panel nameplate rating). Alternating current (ac) is the form in which electric power is delivered to businesses and residences from the utility (i.e., the project's actual output). Accordingly, a solar facility must convert the "dc" power to "ac" before it can be delivered to the utility, which is achieved by the project inverters. Because the sun does not shine all the time and allow the panels to produce at 100% of their nameplate "dc" rating, a higher "dc" rating always exists once the power is converted into "ac" and delivered to the utility. (Exh. 1 at 1, n.1).

12).

## III. FACTUAL BACKGROUND

### A. Pre-Petition History

Section 127 of Public Act 11-80, *An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future* (the "Act"),[2] required the Connecticut Department of Energy and Environmental Protection ("DEEP") to review proposals by private developers to build, own or operate zero emission Class I renewable energy source generation facilities. Pursuant to this requirement, in December 2011, the DEEP conducted a request for proposals ("RFP") for projects from private developers for up to ten (10) megawatts ("MW") of renewable generation. The Project was one of two selected by DEEP pursuant to the RFP. (Exh. 1 at 4; Exh. 3, Resp. 23; DEEP Comments at 1). After being selected, the Project entered into a power purchase agreement with The Connecticut Light and Power Company ("CL&P") to sell the energy, capacity and renewable energy credits from the Project. (Exh. 3, Resp. 23).

### B. Local Contacts

Following DEEP's selection of the Project, the Petitioner continued the preliminary design of a site layout in an effort to avoid or minimize environmental impact while maximizing Project capacity. (Exh. 1 at 5). Throughout the process, the Petitioner kept the Town of Somers and its officials apprised of the Project's progress and solicited input from Town officials, other relevant agencies and from the public in an effort to develop an ultimate design that affords the most public benefit while minimizing environmental impact. The Petitioner developed a good

[2] Section 127 of the Act was subsequently codified at Connecticut General Statutes section 16-244v.

working relationship with the Town of Somers' officials and local community by pursuing a multi-faceted and inclusive public outreach approach that included:

- Regular briefings with local officials regarding site layout and Project development;
- A Project presentation to the Somers Rotary Club on April 11, 2012;
- An informational filing submitted to the Town of Somers on May 29, 2012;
- Meeting on June 4, 2012 with the Town of Somers Zoning Commission;
- Meeting on June 28, 2012 with Town of Somers Planning Commission;
- Public Information Meeting on July 2, 2012; and
- Meeting on September 11, 2012 with the Town of Somers Fire and Rescue Officials.

(Exh. 1 at 10; Exh. 3, Resp. 4-5).

In addition, although not required, because of the Project's proximity to its border, on September 11, 2012, the Petitioner also met with the Town of Ellington Town Planner and Assistant Town Planner. (Exh. 1 at 10; Exh. 3, Resp. 2). The Petitioner also provided notice of its intent to file the Petition to adjacent property owners and sent a copy of the Petition to: Lisa Pellegrini, Town of Somers First Selectman, Jeff Bord, Town of Somers Town Engineer, and John Collins, Town of Somers Building Official. (Exh. 1 at 10-11; Exh. 3, Resp. 1).

**C. The Property**

The site selection for the Project was based on a detailed evaluation of the following key criteria: (a) site suitability (solar resource size, grade and surrounding topography); (b) site availability (ability to lease or purchase land); and (c) proximity to critical infrastructure (suitable electrical grid access). (Exh. 1 at 4; Exh. 3, Resp. 8). SSC reviewed and screened approximately 20 sites across the State of Connecticut. Of the screened sites, only three (3) were

deemed suitable for a proposed project: (1) the Property; (2) Pratt & Whitney Solar Center in East Hartford, Connecticut; and (3) Goshen Solar Center on North Street in Goshen, Connecticut. Projects at each of these sites were submitted to the DEEP in response to its December 9, 2011 Notice of Acceptance of Proposals from Private Developers DEEP Implementation of Section 127. However, the DEEP only selected the project at the Property. (Exh. 3, Resp. 7).

The Property is located at 458 & 488 South Road[3] in the Town of Somers and consists of approximately 95 acres. The Property is owned by The Pleasant View Farms Realty Company and located in an Agricultural Zone A-1. Currently, the Property is agricultural (open hay and corn fields) and no structures are located on the Project site. (Exh. 1 at 5). Although the Property is zoned agricultural, the State of Connecticut Department of Agriculture has not purchased any development rights in the Property. (Tr. 1 at 10). Land uses adjacent to the Project and within the immediate locale are mostly dominated by agricultural production and, to a lesser extent by residential, municipal, recreational (e.g., golf course) and open space, with small portions to the west for industrial uses (e.g., gravel pit). (Exh. 1 at 5-6).

The Property is previously disturbed, cleared, and on relatively level ground with ideal soil conditions for an economically feasible project installation. (Exh. 3, Resp. 8). A stream, wetlands, and woodlands are located in the central portion of the Property. An area of wetlands and woodlands is also located along the western edge of the Property. Impacts to the stream, wetlands and woodlands will be avoided. (Exh. 1 at 5).

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[3] Currently, the Property on which the Project will be located is two separate parcels at the addresses indicated. However, prior to construction, at the request of the Town of Somers, the Petitioner will be filing a lot line revision so that the entire Project is located on the parcel known as 488 South Road. (Exh. 1 at 1, n.2).

The location of the Project and surrounding area (i.e., located next to the Town of Somers landfill and gravel pit) provide for only very limited visual impacts. A 23 kV distribution line, which voltage is ideal for a 5MWac solar project, is also located in close proximity to the Property. (Exh. 3, Resp. 8).

**D. The Project**

The Project will use photovoltaic ("PV") module technology, which has been extensively tested, is in wide use across the solar industry and meets the traditional level of reliability reflected in the solar power generation industry. (Exh. 1 at 6). The Project will consist of the installation of approximately 31,000 PV panels, and associated ground equipment, upgrading of an access road, installation of perimeter maintenance/access roads and installation of an electrical interconnection. The solar panels will be divided into four separate arrays. (Exh. 1 at 6, Tab A). The Project will have a design life of 30 years and efficiency loss of only 0.5% per year. (Exh. 1 at 6; Tr. 1 at 25).

While SSC is leaning toward a single access tracker solution, it is still evaluating whether it will install a fixed tilt or single access tracker solution at the site. (Exh. 3, Resp. 21; Tr. 1 at 9). The choice between a fixed system and a tracking system is by no means simple and panel positioning is one key factor. If a fixed tilt design is selected for the SSC Project, the panels would not track the movement of the sun once initially installed but rather would remain in a fixed position throughout the design life of the Project. (Exh. 3, Resp. 21).

There are a number of factors that are evaluated as it relates to optimal performance of a solar asset. It is generally understood that production yields from projects utilizing trackers can improve a PV system's output by up to 40% over a fixed-tilt array. However, the increment of production improvement over a fixed system depends heavily on the project's latitude and the

type of tracker. Trackers also always come at an added cost relative to fixed systems. Thus, in order for a tracker to make economic sense, the value of the increased energy harvest must exceed the added cost of installing and maintaining trackers over the lifetime of the system. (Exh. 3, Resp. 21).

An additional factor to consider in the decision to use trackers or fixed systems is land use; tracking systems tend to use additional land because they must be spaced out in order to avoid shading one another as they track the sun. (Exh. 3, Resp. 21). The Petition presents the largest facility that may need to be built. (Tr. 1 at 9-10). Final system design could result in up to twenty percent (20%) fewer panels being installed; thereby, decreasing the Project footprint. (Tr. 1 at 9-10). By the time SSC submits its Development and Management Plan ("D&M Plan") for approval, it will have made its selection and the D&M Plan will reflect the actual design of the Project. (Tr. 1 at 63).

The Property will be accessed off of South Road. The main access road to the Project site would be 22 feet wide and consist of the upgrade of an existing road located on the Property. This road is approximately 3,000 feet long. The perimeter maintenance/access road for the Project site would be 15 feet wide and approximately 10,800 linear feet long. The entire Project will be surrounded by a six foot (6') chain linked fence and associated vehicle and man gates. (Exh. 1 at 6, 7, Tab A).

An electrical collector yard will be constructed on the Property. At the point of common coupling with CL&P, Somers will provide a utility class circuit breaker or recloser equipped with a multifunctional relay to serve as the Interconnection Interruption Device. Revenue metering will be provided on the utility side of the breaker and a gang operated disconnect switch will be provided on the utility side of the meter. Additional equipment to monitor circuit

voltage and to disconnect the facility from the grid will also be installed as needed on existing grid circuits to protect the system during system outage. (Exh. 1 at 6-7).

The Project is proposed to be interconnected to the CL&P distribution network at an existing 23kV distribution feeder located along South Road in accordance with CL&P technical standards and State of Connecticut, ISO-New England ("ISO-NE"), and the Federal Energy Regulatory Commission ("FERC") requirements. The interconnection will consist of an approximately 500 foot distribution line constructed either above ground at spans of approximately 100 feet on approximately 50 foot high wooden poles or underground along the access road, which would require a single new 50 foot high wooden pole. (Exh. 1 at 7, Tab A; Tr. 1 at 50-51). An associated Project switchyard that would include a SCADA room, inverters and their associated pads, and other electrical equipment would be contained on an approximately 100' x 100' graded pad. (Exh. 1 at 7, Tab A).

**E. Public Benefit**

A public benefit exists if a project "is necessary for the reliability of the electric power supply of the state or for a competitive market for electricity." (Conn. Gen. Stat. § 16-50p(c)(1)). The Project will generate much of its power at peak times, when the demand for electricity is greatest, and will thereby provide the electrical system with flexible peaking capacity that is necessary to keep the electrical grid stable. (Exh. 1 at 9). Indeed, the system has been designed to harvest the most production (85.9%) during the hours of 9:00 am and 5:00 pm during the spring, summer, and fall months. (Exh. 3, Resp. 22).

Further, the Project supports the State's energy policies as set forth in Connecticut General Statutes section 16a-35k, including the goal to "develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent." The Project will

provide clean, renewable, solar-powered electricity and assist the State in meeting its legislatively mandated obligations under the Renewable Portfolio Standard. (Exh. 1 at 9).

The Project will also assist the Town of Somers and State of Connecticut in reducing greenhouse gas emissions and reducing criteria air emissions pollutants associated with the displacement of older, less efficient, fossil fuel generation. As part of larger state, national and global strategies, reductions in greenhouse gas emissions from this Project will have long-term secondary biological, social and economic benefits. Similarly, the advancement of renewable resources at a distributed level contribute to our Nation's desire for energy independence and reduces our dependency upon foreign countries where geo-political issues may not align with national policy or the virtues of democracy. The Project will also hire local labor, as practical, and be a source of increased revenue for local businesses during construction. (Exh. 1 at 9).

## IV. THE PROJECT WILL MEET DEEP AIR AND WATER QUALITY STANDARDS AND WILL NOT HAVE A SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT

Connecticut General Statutes section 16-50k(a) provides, in relevant part:

> Notwithstanding the provisions of this chapter or title 16a, the council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling . . .the construction or location of any . . . grid-side distributed resources project or facility with a capacity of not more than sixty-five megawatts, as long as such project meets air and water quality standards of the Department of Environmental Protection . . . .

As described more fully below, the unrefuted evidence presented during the course of this proceeding has established that the construction, operation and maintenance of the Project satisfies the criteria of Connecticut General Statutes section 16-50k(a) and that neither the construction nor the operation or maintenance of the Project will have a substantial adverse environmental effect.

### A. Natural Environment and Ecological Balance

The Phase I Environmental Site Assessment ("ESA") concluded that the Project site contained no recognized environmental conditions that warranted additional investigation or action. Based on this, a Phase II ESA was not recommended. (Exh. 1 at 12, Tab C). Furthermore, no hazardous substances will be used or stored on site during construction and/or operation of the Project. (Exh. 1 at 12).

Minimal grading will be required for the Project. (Exh. 1 at 12; Tr. 2 at 8). A Shade Study Analysis was completed at the site on November 8, 2012. (Exh. 3, Resp. 14, Tab B; Tr. 1 at 7). The results of that analysis indicate that between the hours of 9:00 am and 3:00 pm, the average available solar insolation will be greater than 90% year-round on the land currently designated for the Project. (Exh. 3, Resp. 24, Tab B; Tr. 1 at 7). There are areas on the available parcels in which the shading is greater and the insolation is less; however, the facility will be designed to avoid those areas to the greatest extent possible. (Exh. 3, Resp. 24).

In its comments, the DEEP raised questions regarding cleaning of the panels, snow removal, and vegetation control. (DEEP Comments at 3). During operation, SSC does not anticipate that the panels will require regular cleaning as rainfall will naturally clean the panels. However, to the extent, there is not sufficient rainfall, SSC would clean the panels using only water. Vegetation under the panels will be controlled using mowers and will not require the use of pesticides or herbicides. Because the panels are naturally warm, SSC does not anticipate that snow removal will be required. However, to the extent it is required, snow removal would be done manually. (Tr. 1 at 11).

At the time the plant is decommissioned, SSC is required by the terms of its lease to remove the Project and return the site to its original condition (except for ordinary wear and tear). (Exh. 3, Resp. 27; Tr. 1 at 43). In order to fulfill that requirement, SSC anticipates that:

- All equipment (e.g., PV panels, racking systems and posts, wiring, fencing, concrete pads, combiner boxes, inverters, transformers, and switchgear) will be removed and useable components will be sold, recyclable components (e.g., copper, aluminum and other conductive metals, concrete pads, etc.) will be recycled, and non-recyclable materials will be taken to the nearest approved landfill for disposal; and
- Depressions, voids and excavation areas will be backfilled, graded to the proper elevation and, re-vegetated in an effort to return the landscape of the property as close to its previous state as possible.

(Exh. 3, Resp. 27; Tr. 1 at 46).

**B. Public Health and Safety**

Overall, the Project will meet or exceed all health and safety requirements applicable for electric power generation. (Exh. 1 at 13). On September 11, 2012, the Petitioner met with the Town of Somers Fire and Rescue Officials to discuss the Project. Prior to operation, the Petitioner will meet with these officials again, provide them information regarding response to emergencies at PV facilities and provide a tour of the Project. (Exh. 1 at 13).

In addition, each employee working on site will:

- Receive required general and site specific health and safety training;
- Comply with all health and safety controls as directed by local and state requirements;
- Understand and employ the site health and safety plan while on the job site;
- Know the location of local emergency care facilities, travel times, ingress and egress routes; and
- Report all unsafe conditions to the construction manager.

(Exh. 1 at 13).

During construction, heavy equipment and water trucks for dust suppression will be required to access the Project site during normal working hours. It is anticipated that 8 to 12 construction vehicles would make daily trips onto the Project site during the approximately 3 to 6 month construction period. (Exh. 1 at 13; Exh. 3, Resp. 26). During operation, the Project will be unmanned. (Tr. 1 at 51-52).

The Project will not produce any appreciable noise during operation. While, during the construction of the Project, higher levels of noise are anticipated, all work be conducted during normal working hours and it is not anticipated that the levels of noise will exceed any state or local noise standard or limit. (Exh. 1 at 13).

**C. Scenic Values**

The unrefuted evidence presented during the course of this proceeding has established that the Project will have little, if any, visual impact. The topographic and vegetative screenings on site will naturally serve to limit visual effects on residences and from other public view sheds. Moreover, there are no scenic by-ways or hiking trails in the vicinity upon which the Project would have any visual impact. (Exh. 1 at 16, Tab D).

Additionally, the use of low profile Project components (e.g., racking system, panels, inverters, etc.) and minimal grading on site significantly reduce potential visual impact. The electrical interconnect would be visible but would be located in an area that currently has existing electrical poles. (Exh. 1 at 16; Tr. 1 at 18). During the course of the hearing, questions were raised regarding the design of the switchgear. In particular, SSC was asked whether the switchgear would be metal clad enclosed or open bus. (Tr. 1 at 42). Ultimately, the design of the switchgear facility will be dictated by CL&P. (Tr. 2 at 7). If SSC knows the switchgear design at the time it submits its D&M Plan, it will include that information in the plan. (Tr. 2 at

7-8).

In its comments, the DEEP raised concerns regarding the impact of glare from the panels on neighboring property owners. (DEEP Comments at 2). However, the glare associated with the panels is not anticipated to be any greater than that which would be present on a lake. In fact, the glare would significantly less than that which comes from snow. (Tr. 1 at 15-16).

**D. Historic Values**

Prior to submission of the Petition, SSC requested a review of the Project by the State Historic Preservation Officer ("SHPO"). (Exh. 1 at 17, Tab E). The SHPO determined that "no historic properties will be affected by this project." (Exh. 1 at 17, Tab E) (emphasis in original). This evidence was unrefuted.

**E. Air Quality**

The unrefuted evidence presented during the course of this proceeding has established that the Project will meet DEEP air quality standards. Overall, the Project will have minor air emissions of regulated air pollutants and greenhouse gases during construction and no air permit will be required. During construction of the Project, any air emission effects will be temporary and will be controlled by enacting appropriate mitigation measures (e.g., water for dust control; avoid mass early morning vehicle startups, etc.). Accordingly, any potential air effects as a result of the Project construction activities will be de-minimus. (Exh. 1 at 13-14).

During operation, the Project will not produce air emissions of regulated air pollutants or greenhouse gases (e.g., PM10, PM2.5, VOCs, GHG or Ozone). Thus, no air permit will be required. Moreover, over 20 years, the Project will result in the elimination of approximately 102,000 metric tons of $CO_2$ equivalent, which is equal to 20,000 vehicles off the road and 36,000 tons of avoided landfill waste. (Exh. 1 at 14).

## F. Water Quality

The unrefuted evidence presented during the course of this proceeding has also established that the Project will meet DEEP water quality standards. The Project will use no water during operations in the production of electricity and any water utilized during the construction of the Project for dust suppression will be minimal and have no impact on the water quality in the vicinity of the Project site. (Exh. 1 at 18).

The Project site is within Flood Zone X, designated by the Federal Emergency Management Agency ("FEMA") as an area outside of the 500-year floodplain area with a minimal risk for flooding. (Exh. 1 at 18; Exh. 8; Tr. 1 at 21-22; Tr. 2 at 6-7). In addition, neither the DEEP's 2011 Connecticut Environmental Conditions Online (DEEP, 2011) nor the Atlas of Public Water Supply Sources and Drainage of Connecticut (CTDEP, 1982) show any public water-supply wells or aquifer protection areas within a one-half mile radius of the site. (Exh. 1 at 18). Thus, no impacts on water quality or supply would occur with the construction or operation of the proposed Project.

### 1. Wetlands

The principal watercourse on site is an unnamed perennial tributary of Abbey Brook. It flows in a southerly direction though the middle of the site, between array areas A and B and to the east of array area D. The unnamed stream is located in a distinct drainage way and is fed by groundwater discharge as well as runoff and drainage from the surrounding agricultural fields. A small wetland area has also begun to form on the western edge of the site. The soil in this area has been compacted from historic activities and is fed by groundwater discharge. This wetland area has not developed characteristic morphology of wetland (hydric) soil. However, hydrology and vegetation indicate that this area is wet for a significant portion of the growing season.

There are no additional wetlands or watercourses within the Project area. (Exh. 1 at 18, Tab G). These identified wetlands and the one hundred foot setbacks from wetlands will be observed in accordance with the Town of Somers requirements. (Exh. 1 at 19, Tab I; Tr. 1 at 30). With these avoidance measures, no impacts to wetlands will occur. (Exh. 1 at 19).

2. Storm Water Management

Existing and proposed hydrologic conditions for the Project area were evaluated to determine if the development would result in significant changes to stormwater discharge. (Exh. 1 at 19, Tab J). Based on that evaluation, it was determined that "only modest changes in peak stormwater discharge result from the development during in the 2-, 25- and 100-year storm events as compared to existing conditions." (Exh. 1 at 19, Tab J at 1; Tr. 1 at 54). This initial evaluation overstates the actual increase that is expected. (Tr. 1 at 56). The analysis assumed that the Project would use 36-inch concrete foundations. (Tr. 1 at 54-55). However, the Project plans to use primarily driven piles; thereby, reducing the impervious surface to less than a square foot. (Tr. 1 at 54-55).

Since construction of the Project will disturb more than ten (10) acres of land, the Petitioner will register under the DEEP's General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities ("General Permit") at least thirty (30) days prior to commencing any construction activities. In connection with that registration, the Petitioner will implement a storm water management plan to minimize any potential adverse environmental effects. These procedures will be outlined in the Storm Water Management Plan with Storm Water Pollution Prevention Plan ("SWMP" with "SWPPP") for the Project, which will be submitted with the Petitioner's request for coverage under the General Permit. Upon receipt, the Letter of Coverage under the General Permit will become part of the

SWMP with SWPPP for the Project. (Exh. 1 at 19). The Project "does not meet the definition of an industrial activity under the General Permit for Discharge Associated with Industrial Activity and therefore will not require registration for its stormwater during its operational phase under this . . . permit." (DEEP Comments at 3).

In addition, an Erosion and Sediment Control Plan, will be prepared in accordance with Connecticut General Statutes §§ 22a-325 through 22a-329 during the final site design of the Project. During construction, measures will be taken to reduce erosion and manage sedimentation from disturbed surfaces. Minimal grading will be required to construct the solar panels and the following Best Management Practices will be employed:

- Silt fence will be installed at clearing limits and the down-gradient perimeter of the disturbed portion of the site; and
- Construction entrances will be installed at the entrance from South Road to prevent tracking of sediment into local roads.

(Exh. 1 at 20).

After construction of the Project, disturbed surfaces will be restored with vegetative cover (i.e., turf) to maintain soil stability. The existing and restored vegetation will act as a vegetated buffer between the development and the receiving watercourses. This buffer will improve water quality by promoting infiltration and reducing flow velocity. (Exh. 1 at 20).

**G. Fish & Wildlife**

Extensive field and habitat surveys were conducted to characterize potential special-status plants, wildlife and their associated habitat that may occur on the site. (Exh. 1 at 17, Tab C, Tab F, Tab G). Based upon a review of available mapping, SSC initially identified a potential "Area of Concern" associated with a threatened, endangered or special concern species near

Abbey Brook.[4] Based on this, requests were made to the Connecticut DEEP for a review of the Natural Diversity Data Base. (Exh. 1 at 17, Tab F). In response, the DEEP indicated that it does "not anticipate negative impacts to State-listed species (RCSA Sec. 26-306) resulting from the proposed activity at the site." (Exh. 1 at 17, Tab H). In its comments on the Petition, the DEEP further indicated that the species of concern actually occurs "west of Egypt Road and will not be impacted by the proposed facility." (DEEP Comments at 2-3). The Project is also not located near any Important Bird Areas designated by the Connecticut Audubon Society and there is no documentation of any threatened, endangered or special concern bird species at the Property. (Exh. 3, Resp. 25; Tr. 1 at 59).

During the course of the proceeding, questions were asked about the potential for habitat enhancements. (Tr. 1 at 31). In particular, SSC was asked to consider obtaining a report from DEEP regarding the potential for preserving or enhancing grassland bird habitats at the Property. (Tr. 1 at 58). However, such habitat enhancements are unnecessary and could interfere with the operations of the Project, create a potential public safety hazard and negatively impact the future use of the Property once the Project is decommissioned. Indeed, one of the primary reasons that SSC selected the Property was because the significant previous disturbance of the land from ongoing farming operations and previous mining operations made the likelihood of habitat removal or disturbance remote. (Tr. 2 at 9-10). In fact, the unrefuted evidence establishes that habitat is neither being removed nor disturbed. (Tr. 1 at 32). Indeed, "the proposed operations will reduce the disturbance on the property because there will be less traffic and less activity, noise and such." (Tr. 1 at 32). Thus, habitat enhancements are unnecessary. Moreover, habitat enhancements,

[4] In its comments, the DEEP indicated that this area was identified "in connection with the occurrence of climbing fern (*Lygodium plamtum*), a Species of Special Concern which favors wooded wetland and open swamp habitat." (DEEP Comments at 2).

especially those for grassland birds, can interference with the operation and maintenance of the Project and present a potential fire hazard. (Tr. 2 at 10-11). Lastly, habitat enhancements undertaken at the Property, could impact the owners future use of the Property, including returning the Property to agricultural use, after the Project is decommissioned. (Tr. 2 at 11).

During the course of the proceeding, concerns were also raised regarding the potential for expansion of invasive species across the Property as a result of the Project. (Tr. 1 at 56). The only invasive species present at the Property are located within the wetlands area known as the tributary to Abbey Brook. (Tr. 1 at 56-57; Tr. 2 at 8-9). Since no work is proposed to be undertaken within the one hundred foot buffer of this wetlands area, there will not be an opportunity for invasive species to expand across the Property. (Tr. 1 at 56; Tr. 2 at 9).

## V. CONCLUSION

Based on the overwhelming and unrefuted evidence in the record, the Petitioner has established that the Project will meet DEEP air and water quality standards, provides significant benefits to the Town of Somers and the State of Connecticut and will not have a substantial adverse environmental effect. Accordingly, the Council should issue a declaratory ruling approving the Petition as submitted.

Respectfully submitted,
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