STATE OF CONNECTICUT

SITING COUNCIL

PETITION OF SUNJET ENERGY, LLC FOR A DECLARATORY RULING THAT NO CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED IS REQUIRED FOR THE CONSTRUCTION, OPERATION, MAINTENANCE, AND DECOMMISSIONING OF AN UP TO 1.0 MW AC SOLAR PHOTOVOLTAIC PROJECT IN BRISTOL, CONNECTICUT	:	**PETITION NO. _____**
	:	**August 11, 2020**

Pursuant to Conn. Gen. Stat.§§ 4-176 and 16-50k(a) and Conn. Agencies Regs. § 16- 50j-38 *et seq.,* and Conn. Gen. Stat § 16-50(k)(e), SunJet Energy, LLC, a Connecticut limited liability company ("Petitioner") requests that the Connecticut Siting Council ("Council") approve by a declaratory ruling the location, construction, operation, maintenance, and decommissioning of a solar photovoltaic facility up to 1.0 MW AC and associated equipment inclusive of all of solar panels, transformers, electrical switchgear, monitoring equipment, and access roadways ("Project") to be constructed on approximately 6.0 acres of an approximately 11.94-acre parcel located at 0 Matthews Street and interconnected on an adjacent parcel at 125 Hill Street in Bristol, Connecticut ("Project Site"). Connecticut General Statute (C.G.S.) § 16-50k(a) provides in 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 (A) the construction of a facility solely for the purpose of generating electricity, other than an electric generating facility that uses nuclear materials or coal as fuel, at a site where an electric generating facility operated prior to July 1, 2004, and (B) the construction or location of any fuel cell, unless the council finds a substantial adverse environmental effect, or of any customer-side

> distributed resources project or facility or grid-side distributed resources project or facility with a capacity of not more than sixty-five megawatts, as long as: (i) Such project meets air and water quality standards of the Department of Energy and Environmental Protection, (ii) the council does not find a substantial adverse environmental effect, and (iii) for a solar photovoltaic facility with a capacity of two or more megawatts, to be located on prime farmland or forestland, excluding any such facility that was selected by the Department of Energy and Environmental Protection in any solicitation issued prior to July 1, 2017, pursuant to section 16a-3f, 16a-3g or 16a-3j, the Department of Agriculture represents, in writing, to the council that such project will not materially affect the status of such land as prime farmland or the Department of Energy and Environmental Protection represents, in writing, to the council that such project will not materially affect the status of such land as core forest. In conducting an evaluation of a project for purposes of subparagraph (B)(iii) of this subsection, the Departments of Agriculture and Energy and Environmental Protection may consult with the United States Department of Agriculture and soil and water conservation districts.
> *[Emphasis Added]*

As discussed below, Petitioner's purpose is to construct a clean and environmentally friendly Project that produces the maximum amount of carbon-free and clean energy while avoiding and minimizing any substantial adverse environmental effects. Based on the evaluations and analysis presented in this Petition by various technical and environmental experts and consultants, the Project will be a renewable distributed resource with a nameplate capacity of not more than sixty-five megawatts, will meet air and water quality standards of the Department of Energy and Environmental Protection ("DEEP"), and will not have any substantial adverse environmental effect.

Accordingly, the construction, operation, maintenance, and decommissioning of the Project fully comports with the legal requirements set forth in Conn. Gen. Stat. § l6-50k(a) and should be approved by the Siting Council by a Declaratory Ruling.

I. INTRODUCTION:

Petitioner is a Connecticut-based limited liability company that develops renewable energy Projects in Connecticut. Petitioner's principal place of business is 175 Capital Boulevard, Suite 402, Rocky Hill, Connecticut 06067. Members of Petitioner have worked diligently with private landowners, towns, cities, housing authorities, and private businesses to develop solar photovoltaic projects in Connecticut. Please address all legal correspondence and communications regarding this Petition to:

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II. LOCAL INPUT, NOTICES TO PROJECT ABUTTERS AND GOVERNMENTAL OFFICIALS AND AGENCIES:

Petitioner has actively sought input and approval from the City of Bristol regarding the Project and remains committed to providing the City of Bristol with as much information regarding the Project as possible. In support of this goal, Petitioner attended in-person meetings with the City of Bristol Mayor, Staff, City Attorney, and City Council. In addition, as required by the Regulations of Connecticut State Agencies § 16-50j-40, Petitioner provided written notice of this Petition to all abutters and appropriate municipal officials and other governmental officials and agencies. Certifications of service and model notice letters are included in **Exhibit A.** It is worth noting that the City of Bristol will be the beneficiary of all the virtual net metering credits produced by the Project under a three-way virtual net metering services agreement process entered into by

Petitioner, City of Bristol, and Eversource whereby the City of Bristol will receive approximately $1.25 million in municipal electrical cost reductions over the 20-year contractual life of the Project.

III. PROJECT:

In developing the Project, Petitioner strongly considered Connecticut's energy policy goals to develop and utilize renewable energy resources as much as possible. See Conn. Gen. Stat. § 16a-35k. The proposed Project is a Class I renewable energy source under Conn. Gen. Stat. § 16-1(a)(26). Pursuant to Public Act 11-80, The Connecticut Light and Power Company d/b/a Eversource Energy ("Eversource") is required to procure Class I Zero Emissions Renewables Energy Credits (ZRECs) to help achieve Connecticut's renewable energy policy and goals. Petitioner submitted a bid for the Project into Eversource's competitive ZREC Request for Proposals ("ZREC RFP") and was granted a long-term (15 year) contract for the ZRECs that will be produced by the Project. Selection of the Project by Eversource will help Connecticut meet its clean energy policy goals. In addition, the Project executed a Virtual Net Metering Credit Services Agreement with the City of Bristol for the virtual net metering credits to be produced by the Project. As a result, the City of Bristol will save approximately $1.25 million in municipal electrical costs over the life of the Project.

A. Project Site Selection:

Petitioner utilized its internal experience, and the experience and expertise of third-party electrical engineering, civil engineering, and environmental consultants to analyze and select the Project Site. Project Site selection was based on the site's suitability regarding size, topography, and the absence of any biological and hydrological conflicts, site availability, proximity of the site to existing electrical infrastructure, and approval to interconnect to the Project to the Eversource electric distribution grid. The Project has been designed to minimize the disturbance of the land

required for the Project and preserve as much of the site as possible. Petitioner performed significant public outreach with the City of Bristol including attending several in-person meetings with City officials during 2019 and 2020 prior to the COVID-19 Public Health Emergency. As noted above, Petitioner and the City of Bristol have entered into a virtual net metering credit services agreement whereby the City of Bristol will save over $1.25 million in municipal electrical costs as a direct result of the Project.

The extensive Project Site assessment and analysis process in preparation of this Petition involved several industry leading expert consultants:

Consultant	Area of Site Assessment and Analysis
Dufour Surveying LLC	Land Surveying
All-Points Technology Corporation, P.C.	Civil Engineering
All-Points Technology Corporation, P.C.	Wetlands Delineation and Impact Analysis
All-Points Technology Corporation, P.C.	Habitat Review and Assessment
Down to Earth Consulting, LLC	Geotechnical Design Services
Heritage Consultants	Phase IA Environmental Site Assessment
Blymyer Engineers	Mechanical Engineering and Design
Blymyer Engineers	Electrical Engineering and Testing
Blymyer Engineers	Interconnection Design and Medium Voltage Analysis

B. Property Description:

The property consists of 11.94 acres located at 0 Matthews Street and the adjacent parcel at 125 Hill Street, Bristol, Connecticut 06010. The Project Site is an open field with some sporadic trees and brush and was a former apple orchard. The immediate vicinity of the Project Site consists of residential and undeveloped properties as shown on the Project vicinity maps shown in **Exhibit B**.

C. Project Description:

The Project will involve the construction and installation of ground-mounted solar photovoltaic panels, a single-axis sun tracking system, and related improvements on approximately six acres of an 11.94-acre parcel. The Project will consist of approximately 3,432 non-reflective

solar panels measuring approximately 8'-1" above final grade, in its maximum tilt position, surrounded by a chain link security fence. A row of arborvitaes, approximately 8' tall and 4.5' in diameter, will be planted as vegetative screening along the security fence to reduce direct views of the Project from nearby streets and properties. The solar modules are designed to absorb incoming solar radiation and minimize reflectivity, such that only a small percentage of incidental light will be reflected off the panels. This incidental light is significantly less reflective than common building materials, such as steel, or the surface of smooth water. The panels will rotate east to west tracking the sun, thereby further reducing overall reflectivity (in any one given direction). The type of modules and sun tracker racking system to be utilized are shown in **Exhibit C.**

Petitioner will install the Project in the area shown on the Project Site Plan in **Exhibit D**. The Project construction period is estimated to take approximately three and one-half months after the issuance of all required governmental permits and approvals. Please see the Table directly below. If all goes well, Petitioner anticipates constructing the Project immediately upon receiving the Declaratory Ruling from the Council, a General (stormwater) Permit from DEEP, and the Building Permit from the City of Bristol.

Project Construction Schedule:

Task	Duration
Mobilization and site preparation	2 weeks
Civil work: road construction, tree clearing, grading	2 weeks

Racking, panel & electrical installation	4 weeks
Interconnection and medium voltage	2 weeks
System testing	1 week
Approvals & commissioning	3 weeks

D. Electric Distribution Grid Interconnection:

Petitioner will interconnect the Project to the Eversource electric distribution grid as shown on the Project Site Plan in **Exhibit D**. Eversource reviewed the Project's designed and output during their system impact review process and determined that the distribution circuit for the Project is suitable for the additional output from the Project. The existing electrical infrastructure was one of the key reasons the Project Site was selected by the Petitioner based on the assessment and analysis conducted by its electrical engineering consultant - Blymyer Engineers. Eversource has granted interconnection approval to the Project, and Petitioner and Eversource have entered into an interconnection agreement for the Project. Eversource has indicated that it is ready to commence the necessary interconnection upgrades for the Project upon receiving a notice to proceed from Petitioner.

E. Equipment, Construction, Operation & Maintenance, and Decommissioning:

The Project design is laser focused on maximizing the efficiency of the solar photovoltaic system by utilizing premium modules and a single-axis sun tracker system instead of the traditional fixed ground-mounted system. A detailed listing of the Project Equipment is shown in **Exhibit C.**

The Project will produce carbon-free and clean energy and improve grid resiliency by providing distributed energy where it is needed. The operational life of the Project is based on the designed life expectancy of the equipment. The equipment for the Project comprising of premium modules a single-axis sun tracker system has a designed life and warranty extending for twenty years. The inverters for the Project have a designed life and warranty of approximately ten (10) years. Petitioner expects an inverter replacement during the life of the Project. Therefore, the anticipated operational life of the Project is twenty plus years.

Project construction will have an anticipated duration of approximately three and one-half months requiring the services of local electrical, civil and structural contractors. There will be a single access road on the Property Site and steel foundations will be driven into the ground. Steel racking components will be mounted on these foundations followed by the installation of photovoltaic modules. The electrical contractor will then install conductors from the photovoltaic modules to the inverters and then to a single transformer on a single pad on the edge of the array. A single switchgear will also be mounted to this pad. Nest, the electrical contractor will install a medium voltage circuit from the Project Site to the Eversource point of common coupling. The Project construction schedule will be based on a six (6) day work week Monday through Saturday between the hours of 7:00 AM and 5:00 PM but will be modified if required to comply with City of Bristol requirements. As noted above, Petitioner will utilize for erosion and sedimentation control consistent with the *2002 Connecticut Guidelines for Erosion and Sedimentation Control* throughout construction of the Project. Once construction is complete and the Project is operational, the Project will be monitored remotely twenty-four (24) hours a day, seen (7) days a week through a data acquisition system ("DAS"). The DAS is capable of detecting weather, production from all equipment for the Project, and safety concerns related to grid outages or faults.

The Project's Operations and Maintenance ("O&M") company will perform detailed scheduled annual inspections of all equipment at the Project Site. In addition, the O&M company will always be on-call in the event of unscheduled equipment maintenance or safety related concerns. Project Site vegetation is typically mowed three (3) times annually. The O&M Plan for the Project is shown in **Exhibit E.**

At the end of the operational life of the Project, Petitioner will remove all equipment (*e.g.* racking system, panels, inverters, electrical collection system, etc.) from the Project Site. In the event of a fault or power outage within the solar facility and/or the Eversource distribution circuit, the Project is required to be isolated from the distribution circuit within two (2) seconds of fault detection. The Decommissioning Plan for the Project is shown in **Exhibit F.**

IV. NO SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT:

C.G.S. Stat. § 16-50k (a) provides that a Certificate is not required if an electric generating facility meets the air and water quality standards of DEEP and does not have a substantial adverse environmental effect. As explained in Section III(A), Petitioner retained several environmental expert consultants to conduct a comprehensive environmental assessment and analysis of the Project Site. Petitioner also consulted with DEEP and other relevant agencies in its evaluation of potential environmental impacts of the Project. For these reasons and for those addressed in detail below, this Project avoids, reduces, and mitigates any substantial potential environmental effects and should be approved.

A. Air Quality:

The Project will not generate any emissions and will contribute to carbon reduction in Connecticut. In addition, the Project will have only very minor air emissions of regulated air pollutants and greenhouse gases during construction. To ensure this, Petitioner will control any

temporary emissions at the Project Site by enacting appropriate mitigation measures *(e.g.*, water for dust control; avoid mass early morning vehicle startups, etc.). Accordingly, any potential air effects produced by the Project's temporary construction activities will be *de minimus*. During the Project's operation, the Project will produce no regulated air pollutants or greenhouse gases (*e.g.*, PM, VOCs, GHG or Ozone). No air permit will be required for either construction or operation of the Project.

B. Water Quality:

Groundwater underlying the Project Site is classified by DEEP as "GA".[1] This classification indicates groundwater within the area is presumed to be suitable for human consumption without treatment. Based upon reviewed DEEP mapping and Project Site observations, the nearest surface water bodies are located on the western portion of the Site. Please see Existing Conditions Map shown in **Exhibit L.** Consisting of a stream and pond, these resources are classified by DEEP as Class A[2] surface water bodies. The Project Site is not located within a mapped preliminary or final Aquifer Protection Area. The solar facility will be unstaffed, and no potable water uses, or sanitary discharges are planned. No liquid fuels are associated with its operations. The proposed post-development drainage characteristics of the Project Site will mimic the pre-development conditions. Stormwater will be properly handled and treated in accordance with the 2004 *Connecticut Stormwater Quality Manual*. To meet the current draft of DEEP's *Appendix I, Stormwater Management at Solar Array Construction Projects*, two (2) grass-lined stormwater management basins and associated swales are proposed along the western and southern exteriors of the fenced Project. To safeguard water resources from potential impacts

[1] Designated uses in GA-classified areas include existing private and potential public or private supplies of drinking water and base flow for hydraulically connected surface water bodies.

[2] Designated uses for Class A surface water bodies include habitat for fish and other aquatic life and wildlife; potential drinking water supplies; recreation; and water supply for industry and agriculture.

during construction, Petitioner is committed to implementing protective measures in the form of a Stormwater Pollution Control Plan ("SWPCP") to be finalized and submitted to the CSCl, pending approval by DEEP Stormwater Management. The SWPCP will include monitoring of established sedimentation and erosion controls that will be installed and maintained in accordance with the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control*. Petitioner will also apply for a *General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities* from DEEP. With the incorporation of the proposed protective measures during and post-construction, stormwater runoff from Project development will not result in an adverse impact to water quality.

C. Floodplain Areas:

Petitioner, through All-Points Technology Corporation ("APT"), reviewed the United States Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Maps ("FIRM") for the Project Site.[1] Based upon the reviewed mapping, the Project Site is classified as Zone X, which is defined as areas of minimal flooding, typically above the 500-year flood level. As such, no special considerations, or precautions relative to flooding are required for the Project.

D. Farmland Soils:

Farmland soils include land that is defined as prime, unique, or farmlands of statewide or local importance based on soil type, in accordance with the Code of Federal Regulations, CFR title 7, part 657. They represent the most suitable land for producing food, feed, fiber, forage, and oilseed crops. According to the Connecticut Environmental Conditions Online Resource Guide,[2] no Prime Farmland Soils are located within the Project Area. A relatively small area of Prime

[1] The Site is mapped on FIRM PANEL #09003C0461F dated September 26, 2008.
[2] Connecticut Environmental Conditions Online (CTECO) Resource Guide www.cteco.uconn.edu.

Farmland Soils is mapped within the northeast corner of the Project Site but will not be disturbed by the proposed Project.

E. Historic and Archaeological Resources:

Petitioner, through Heritage Consultants LLC ("Heritage Consultants") of Newington, Connecticut, reviewed relevant historic and archaeological information and conducted a pedestrian survey to determine whether the Project Site holds potential cultural resource significance. Their review of historic maps and aerial images of the Project Site, and examination of files maintained by the Connecticut State Historic Preservation Office ("SHPO") revealed two (2) resources listed on the National Register of Historic Places ("NRHP"), the Endee Manor Historic District and Rockwell Park, located within one (1) mile of the Project Site. No reported archaeological resources exist within one (1) mile of the Project Site. The SHPO Determination Letter is shown in **Exhibit I.** This information was documented in a Phase 1A Cultural Resources Assessment Survey ("Phase 1A") report shown in **Exhibit J,** which concluded that the Project Site Area retains no/low sensitivity for intact archaeological deposits and therefore, no additional investigations are warranted. On behalf of APT, Heritage Consultants submitted Project and Site historic/cultural information, as well as the Phase 1A, to the SHPO for review and comment. In a letter dated June 2, 2020, the SHPO concurred that additional archeological investigations of the Project Area are not warranted. Further, the two resources listed on the NRHP will not be impacted by the Project. The Phase 1A also identified nearby structures at 125 Hill Street that may be eligible for listing on the NRHP. SHPO concurred with Heritage's recommendation to install vegetative screening between the solar array and these structures. Please see the Project Site vegetative screening photos (before and after) shown in **Exhibit M**.

F. Visibility:

The Project will consist of 3,432 non-reflective solar panels measuring approximately 8'-1" above final grade surrounded by a chain link security fence. A row of arborvitaes, approximately 8' tall and 4.5' in diameter, will be planted as vegetative screening along the security fence to reduce direct views of the Project from nearby streets and properties. The proposed electrical interconnection will consist of one overhead utility line with approximately four (4) wooden poles. The solar modules are designed to absorb incoming solar radiation and minimize reflectivity, such that only a small percentage of incidental light will be reflected off the panels. This incidental light is significantly less reflective than common building materials, such as steel, or the surface of smooth water. The panels will be tilted up toward the southern sky at a fixed angle of 55 degrees and will rotate east to west tracking the sun, thereby further reducing overall reflectivity.

G. Habitat And Wildlife:

The Project Site Area is located primarily within a hayfield (uplands), with smaller components of forest and hedgerows, in the central portion of the Site. The western-most side of the Site beyond the Project Area is dominated by emergent/forested/scrub-shrub wetland habitat. While small, relatively narrow abrupt transitional ecotones consisting mainly of narrow scrub/shrub habitat separate the Project Area cover types introduced above. The habitat types and their vegetative communities are described in below and depicted on are shown on the Existing Conditions Map in **Exhibit L.**

H. Upland Habitat Types:

1. Hayfield:

Much of the Project Site habitat, approximately 6.5 acres, consists of a managed hayfield. The hayfield is dominated by cool-season Eurasian feed grasses including orchard grass (*Dactylis glomerata*) and timothy grass (*Phleum pratense*). The field also contains deer-tongue grass (*Dichanthelium clandestinum*), bedstraw (*Galium spp.*), fescues, clover (*Trifolium spp.*) and multiflora rose (*Rosa multiflora*). Boulders and/or bedrock outcroppings are also present within the field. The Project Area would occupy approximately 5.3 acres of this habitat.

2. Forest and Hedgerows:

Forest/hedgerows habitat encompasses approximately 1.3 acres of the Project Site, with areas east and west of the hayfield, and a narrow feature in the center of the field. Upland habitat consists of narrow strips of forest and field hedgerows adjacent to the wetland and hayfield. These areas are dominated by sub-mature hardwood trees with a dense shrub layer. Dominant species include hickory (*Carya spp.*), multiflora rose, eastern red cedar (*Juniperus virginiana*), Autumn olive (*Elaeagnus umbellata*), white pine (*Pinus strobus*), black cherry (*Prunus serotina*), bush honeysuckle (*Lonicera morrowii*), black oak (*Quercus velutina*), apple (*Malus spp.*), poison ivy (*Toxicodendron radicans*), the invasive Asiatic bittersweet (*Celastrus orbiculatus*), brambles (*Rubus spp.*), sumac (*Rhus spp.*) and the invasive non-native Norway maple (*Acer platanoides*). The Project Area would occupy approximately 0.7 acre of the forest/hedgerow's habitat.

3. Emergent/Forested/Scrub-Shrub Wetlands:

No wetlands or watercourses are located within the Project Site Area. However, one relatively large wetland occupies ±2.5 acres on the western side of the Site, part of a larger complex

that extends off-site to the south and north. The Project Site wetland component is comprised of palustrine emergent, palustrine forested and palustrine scrub-shrub intermixed cover types.

The on-site wetland boundary was delineated by others in 2018 and documented in a technical report. An APT wetland scientist reviewed the report and performed an independent field inspection of the wetlands to verify the boundary on May 19, 2020. APT determined that the previous wetland delineation was substantially correct. Wetland hydrology is predominantly temporarily flooded but includes permanently flooded (within the small pond) and saturated (along the wetland-upland interface) hydrologic regimes. An unnamed perennial stream (a tributary of the Pequabuck River) flows from north to south through the wetland. A small pond, embedded within the southern portion of the wetland system, intercepts the stream. The stream channel ranges from between 5 and 10 feet in width and has a sinuous flow path. The stream banks are shallow and poorly defined, resulting in regular overbank flow of the stream into the bordering wetland. This has resulted in the deposition of coarse sand and gravel bars within portions of the wetland that immediately border the stream. The pond was historically dug within the limits of the stream, with an impoundment consisting of a small earthen berm that has been breached. The pond is now largely silted in and shallow (maximum depth approximately 20 inches) with thick silty-organic benthic sediments. There is a dense mat of floating aquatic and emergent vegetation, along with a dense covering of filamentous algae and duckweed (*Lemna minor*). The dominant plant around the pond fringe is cattail (*Typha latifolia*). Emergent and scrub-shrub wetland vegetation includes willow (*Salix sp.*), elderberry (*Sambucus canadensis*), skunk cabbage (*Symplocarpus foetidus*), tussock sedge (*Carex stricta*), meadowsweet (*Spirea latifolia*), clearweed (*Pilea pumila*), cattail, sensitive fern (*Onoclea sensibilis*), speckled alder (*Alnus rugosa*), false hellebore (*Veratrum viride*), cinnamon fern (*Osmunda cinnamomea*), winterberry (*Ilex verticillata*), sapling red maple

(*Acer rubrum*), silky dogwood (*Cornus amomum*), along with invasive non-native species including bush honeysuckle, Japanese barberry (*Berberis thunbergii*), reed canary grass (*Phalaris arundinacea*) and multiflora rose. The southeast portion of the wetland is forested with a tree canopy dominated by red maple and a shrub layer dominated by multiflora rose and bush honeysuckle, along with some spicebush (*Lindera benzoin*). A small portion of the wetland extends easterly into a hillside drainageway that penetrates the adjacent hayfield. This area is seasonally hayed, and the vegetation consists predominantly of tussock sedge. No wetlands or watercourses will be directly impacted by the Project. The Project has been designed so that the fenced Project maintains a minimum 100-foot setback to any nearby wetland resources. All clearing and grading limits, including stormwater management areas, will maintain a minimum setback of approximately 50 feet to the nearest wetland boundary. Potential short-term impacts associated with the Project's construction will be minimized by the proposed sedimentation and erosion controls that will be installed and maintained during construction activities in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*. A phased sedimentation and erosion control plan will be implemented to properly protect the nearby downgradient wetland resources.

Potential long-term secondary impacts to wetland resources associated with the operation of this Project are minimized by several factors. The Project will be unstaffed (thereby generating negligible traffic). Impervious surfaces are limited to a proposed short, 15-foot wide gravel access and turnaround at Matthews Street; no gravel perimeter or interior roads are proposed for this Project. The majority of the ground beneath the solar arrays will be treated and maintained with the existing hayfield vegetation, allowing surface water to infiltrate or slow prior to entering the two (2) grass-lined stormwater infiltration basins; and, any stormwater runoff that enters the basins

and discharges will be controlled for velocity with the use of an overflow weir that will discharge onto the surrounding upland hayfield in an area at least ±50 feet from the nearest wetland resource area. The basins have been designed to treat 100 percent of the Water Quality Volume. Stormwater generated by the Project will be properly handled and treated in accordance with the *2004 Connecticut Stormwater Quality Manual* and in general compliance with *Appendix I – Stormwater Management at Solar Array Construction Projects*. Supporting stormwater management calculations, including the design of the basin, are provided in the Stormwater Management Report, which is provided under separate cover. To promote protection of and avoid unintentional impacts to the Site wetland and its associated stream during construction, best management practices ("BMPs") have been incorporated into the Project design. The proposed BMPs are outlined in a Wetland Protection Plan designed specifically for this Project and shown in **Exhibit N.** By implementing and maintaining these BMPs throughout construction, the proposed Project development will not result in any adverse impact to wetland resources.

4. Vernal Pool Survey:

No vernal pools will be affected by the Project. Project Site visits were conducted on April 22nd and May 19th, 2020 to survey the western wetland for cryptic vernal pool habitat. Survey methods used included visual surveys to identify adults, larvae and egg masses, audial surveys to record breeding choruses and dip-net surveys to identify amphibian larvae. No vernal pool indicator species were present. The only portion of the wetland with a hydroperiod suitable to support amphibian breeding was the small embedded pond. The remaining areas of the wetland did not have sufficient standing water to support amphibian egg and larval development. The pond does not meet the physical characteristics of a vernal pool. Specifically, it is permanently flooded (as opposed to seasonally flooded) and it has a perennial stream inflow and outflow. Despite the

lack of physical attributes of a vernal pool, the pond was inspected and dip-netted for the presence of vernal pool indicator species on both site visits. Three amphibians were observed: spring peeper (*Pseudacris crucifer*) and gray treefrog (*Hyla versicolor*) adults were observed near the pond, and green frog (*Rana clamitans*) larvae (tadpoles) and adults were observed in the pond with tadpoles in abundant numbers. Invertebrate species observed include backswimmer, freshwater snails and isopods. Wetland dependent birds utilizing the pond included red-winged blackbird (*Agelaius phoeniceus*) and green heron (*Butorides virescens*). Based on these field observations, the results of the survey indicate that the pond does not meet the biological characteristics of a vernal pool.

I. Species:

1. Rare:

The DEEP Natural Diversity Data Base ("NDDB") program performs hundreds of environmental reviews each year to determine the impact of projects on state listed species and to help landowners conserve the state's biodiversity. In furtherance of this endeavor, the DEEP also developed maps to serve as a pre-screening tool to help applicants determine if there is the potential for Project-related impact to state-listed species. The NDDB maps represent approximate locations of (i) endangered, threatened and special concern species and, (ii) significant natural communities in Connecticut. The locations of species and natural communities depicted on the maps are based on data collected over the years by DEEP staff, scientists, conservation groups, and landowners. In some cases, an occurrence represents a location derived from literature, museum records and/or specimens. These data are compiled and maintained in the NDDB. The general locations of species and communities are symbolized as shaded (or cross-hatched) areas on the maps. Exact locations have been masked to protect sensitive species from collection and disturbance and to protect landowner's rights whenever species occur on private property. APT

reviewed the most recent DEEP NDDB mapping (December 2019) to determine if any such species or habitats occur within the vicinity of the Project Site. According to the available DEEP NDDB maps, a NDDB shaded area is depicted ±24 feet northeast of the Site; the Project Area is located ±120 feet southwest of the NDDB buffer area. Please see **Exhibit L** for the Existing Conditions Map. APT submitted a NDDB Review Request to DEEP on May 21, 2020 and a response was has received as shown in **Exhibit G.** Petitioner is working to develop a mitigation plan to address the grassland bird species noted by NDDB.

2. Federally Listed Species:

One federally listed threatened species was identified to potentially occur in the vicinity of the Project Site Area, the northern long-eared bat ("NLEB"; *Myotis septentrionalis*). In accordance with USFWS New England Field Office's consultation policy, APT assessed habitat supported by the Project Site and whether it is suitable for NLEB.

Northern Long-eared Bat:

The NLEB is a federally listed[1] threatened species known to occur in the vicinity of the Site. The NLEB's range encompasses the entire State of Connecticut and suitable NLEB roost habitat includes trees (live, dying, dead, or snag) with a diameter at breast height ("DBH") of three (3) inches or greater. The Project will result in the removal of approximately 0.7 acre of forest/hedgerow habitat that includes some trees suitable for NLEB roosting.[2] Since the Project may potentially affect NLEB habitat, a determination of compliance with USFWS's Northern Long Eared Bat final 4(d) rule was completed. The *Northern long-eared bat areas of concern in Connecticut to assist with Federal Endangered Species Act Compliance map* (March 6, 2019) was

[1] Listing under the federal Endangered Species Act
[2] Suitable NLEB roost habitat includes trees (live, dying, dead, or snag) with a diameter a DBH of three (3) inches or greater.

reviewed to determine the locations of any known maternity roost trees or hibernaculum. This map revealed that there are currently no known NLEB maternity roost trees in Connecticut. The nearest NLEB habitat resource to the Site is in Litchfield, approximately 8.5 miles to the west of the Project Site.

APT submitted the USFWS's Northern Long Eared Bat final 4(d) rule Streamlined Consultation Form on April 24th, 2020 under the consultation framework that allows federal agencies to rely upon the USFWS January 5, 2016, intra-Service Programmatic Biological Opinion ("BO") on the Final 4(d) Rule for the NLEB for section 7(a)(2) compliance. If the USFWS does not respond within thirty (30) days from submittal of this form (May 24th, 2020), one may presume that USFWS determination is informed by the best available information and that Petitioner's Project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS' BO. No response was received from USFWS; therefore, the Project is not likely to result in an adverse effect to NLEB.

In addition, Petitioner may consider the following additional USFWS voluntary conservation measures, where appropriate and as the Project schedule allows, to reduce potential impact to NLEB.

- Conduct tree removal activities outside of the NLEB pup season (June 1-July 31) and active season (April 1-October 31) to minimize impacts to pups at roosts not yet identified.
- Avoid clearing suitable spring staging and fall swarming habitat within a five-mile radius of known or assumed NLEB hibernacula during the staging and swarming seasons (April 1-May 15 and August 15-November 14, respectively). *Not applicable: Site is located > 5 miles from the nearest hibernaculum.*
- Maintain dead trees (snags) and large trees when possible.

- Use herbicides and pesticides only if unavoidable. If necessary, spot treatment is preferred over aerial application.
- Minimize exterior lighting, opting for down-shielded, motion-sensor security lights instead of constant illumination.

J. Stormwater Management:

Through APT, Petitioner completed a drainage analysis to review pre-and post-development runoff at the Site shown in **Exhibit H.** This Exhibit shows construction and operation of the Project at the Project Site will fully comply with requirements of the DEEP stormwater requirements, including the now proposed but not implemented Draft Appendix I. Petitioner will also prepare and implement a Stormwater Pollution Control Plan for the Project and apply for a General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities from DEEP.

K. Public Health And Safety:

Petitioner is immensely concerned with safety. Overall, the Project will meet or exceed all health and safety requirements applicable for electric power generation. The Project would be designed to applicable industry, State and local codes and standards and will not pose a safety concern or create undue hazard to the public. The Project includes a proposed seven-foot-high safety fence and gate (which is mandated by National Electric Code), which will limit access to authorized or emergency personnel only. Each employee working on the Project Site will:

- Receive required general and site-specific health and safety training;
- Comply with all health and safety controls as directed by local, state, and federal requirements;
- Understand and employ the Site health and safety plan;

Know the location of local emergency care facilities, travel times, ingress and egress routes; and

- Immediately report all unsafe conditions to the construction manager. During construction, heavy equipment will be required to access the Project Site and higher levels of noise are anticipated; however, Petitioner will conduct all activities during normal working hours.

For the limited construction time required to construct the Project, construction equipment will be required to access the Project Site during normal working hours.

L. Noise:

While no formal noise study was completed for the Project, the Project is not anticipated to be a source of noise and will follow DEEP and City of Bristol regulations. Once the Project is constructed and operational, the only equipment that will emit noise consists of the inverter cooling which cannot be heard outside of the Project fence line. The inverters will not be active at night when the sun is not shining.

M. FAA:

Pursuant to 14 C.F.R. § 77.9 regarding the FAA Notice of Proposed Construction or Alteration, the FAA must be notified of "any construction or alteration that exceeds an imaginary surface extending outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of the airport." 14 C.F.R. § 77.9(b)(l) The Project Site information has been submitted to the FAA for review and approval.

N. EPA Carbon Dioxide Reduction Equivalency:

The estimated EPA Carbon Dioxide Reduction Equivalency calculations over the twenty-year life of the Project will help Connecticut meet its important zero-carbon policy goals. For

example, the clean electricity produced by the Project is equivalent to reducing Greenhouse Gas Emissions by an estimated 51,811,098 pounds. This is equivalent to 5,077 passenger vehicles, 2,644,438 gallons of gasoline consumed, 25,895,009 pounds of coal burned, and is enough to energize 2,712 homes for one year. Moreover, the carbon sequestered by the Project is equivalent to an estimated 388,596 tree seedlings grown for ten years or 30,691 acres of U.S. forests in one year. The estimated EPA Carbon Dioxide Equivalency Results are shown in **Exhibit K.**

V. CONCLUSION:

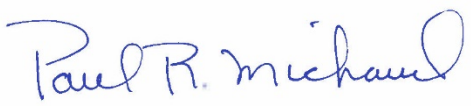
As discussed above, Petitioner's purpose is to construct a clean and environmentally friendly Project that produces the maximum amount of carbon-free clean energy while avoiding and minimizing any adverse environmental effects.

Based on the evaluations and analysis presented in this Petition by the Petitioner and the Petitioner's technical and environmental expert consultants, the substantial evidence shows that the Project will be a distributed resources project with a capacity of not more than sixty-five megawatts, will meet or exceed the air and water quality standards of DEEP, and will not have any substantial adverse environmental effect.

Accordingly, Petitioner respectfully requests that the Connecticut Siting Council grant this Petition for a Declaratory Ruling and approve the location, construction, operation, maintenance, and decommissioning of a solar photovoltaic facility up to 1.0 MW AC and associated equipment inclusive of all of solar panels, transformers, electrical switchgear, monitoring equipment, and access roadways to be constructed on approximately 6.0 acres of an approximately 11.94-acre parcel located at 0 Matthews Street and interconnected on an adjacent parcel at 125 Hill Street in Bristol, Connecticut.

RESPECTFULLY SUBMITTED,

SUNJET ENERGY, LLC



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Its Attorney

Exhibit A

Certification of Service – Model Service Letters

Exhibit B

Project Site - Vicinity Maps

(Past and Present)

Exhibit C

Project Equipment

Modules, Single-Axis Sun Tracker System, and Inverters

Exhibit D

Project Site Plan

Exhibit E

Operations and Maintenance (O&M) Plan

Exhibit F

Decommissioning Plan

Exhibit G

NDDB Determination Letter

Exhibit H

Stormwater Management Report

Exhibit I

SHPO Letter

Exhibit J

Phase 1A Cultural Resources Assessment Report

Exhibit K

EPA Carbon Dioxide Reduction Equivalency Report

Exhibit L

Existing Conditions Map

Exhibit M

Vegetative Screening Photos

(Before and After)

Exhibit N

Wetland Protection Plan