STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:	:	
	:	
PETITION OF PAWCATUCK SOLAR CENTER, LLC FOR A DECLARATORY RULING THAT A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED IS NOT REQUIRED FOR THE CONSTRUCTION, OPERATION AND MAINTENANCE OF A 15 MW AC SOLAR PHOTOVOLTAIC PROJECT ON ELLA WHEELER ROAD IN NORTH STONINGTON, CONNECTICUT	:	PETITION NO. 1345
	:	AUGUST 22, 2018

RESPONSES OF PAWCATUCK SOLAR CENTER, LLC
TO CONNECTICUT SITING COUNCIL INTERROGATORIES – SET TWO

On August 8, 2018, the Connecticut Siting Council ("Council") issued Interrogatories to Pawcatuck Solar Center, Inc. (the "Petitioner"), relating to Petition No. 1345. Below are the Petitioners responses.

Question No. 95

Referring to response to CSC 13 & CSC 15, the 3rd party currently farms 70 acres out of 110 acres. Do the remaining 40 acres consist of fallow fields or a mix of fallow fields and woodlands? Are there any other farming activities occurring on the property outside of the 3rd party lease?

Response

Yes, the remaining 40 acres consists of fallow fields and woodlands. There are no other farming activities occurring on the property outside of the 3rd party's leased area.

Question No. 96

Referring to response to CSC 30 & CSC 57i, why was an aisle width of 9.5 feet used in the Spadefoot Toad Management Area (outside the experimental 20-foot aisle area) rather than the standard 9 feet used elsewhere on the Project site?

Response

The Petitioner's response to CSC 30 references an aisle width of "approximately 9 feet". The more precise reference to 9.5 feet in response to CSC 51.i is the actual aisle width the Petitioner intend to use throughout the project.

Question No. 97

Referring to response to CSC 53, how many acres of clearing are in each of the following:

a) Wetland 1

b) Wetland 2

c) Wetland 5

Can the project be reconfigured to reduce the amount of clearing within wetlands?

Response

a) Wetland 1 = 2.54 ac.

b) Wetland 2 = 1.44 ac.

c) Wetland 5 = 0.85 ac.

It may be possible to reconfigure the site layout and reduce the amount clearing within Wetland areas 1, 2 and 5. The acreage referenced above represents the maximum acreage that would be cleared within these wetland areas.

Following up on conversations between the Petitioner, Council members and Council staff during the site visit, the Petitioner explored ways to revise the site layout to move more of the solar array into the area nearer the vernal pool. This area was identified by members of the Council as being lower value than some of the wetland areas original proposed to be impacted. This change in site layout would result in less overall wetland acreage being impacted by the project. *See* Attachment 1. If the Siting Council prefers this revised layout, the Petitioner would update its final project drawings as a part of the Development and Management Plan process. The revised layout would result in a significant reduction in the wetland areas to be cleared from 4.83 acres to 0.37 acres.

Question No. 98

Referring to response to CSC 73, what field conditions determine the type of seeding method?

Response

There are no restrictions on the type of seeding method for the site other than those that may be related to scheduling concerns of cost factors. The Petitioner would propose to seed at rates provided in Figure PS-3 of the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, uniformly by hand, cyclone seeder, drill, cultipacker type seeder or hydro-seeding (slurry mix of seed, fertilizer). Normal seeding depth is from 0.25 to 0.5 inch. The Petitioner would expect an increase in seeding rates of up to 10% when using hydro-seed or frost crack seeding. Seeding with warm season grasses would occur during the spring months only.

Question No. 99

Referring to response to CSC 84, what other entities would be notified of sediment release into a wetland?

Response

In addition to the Council, the Petitioner would notify the Connecticut Department of Energy and Environmental Protection ("CT DEEP"). Pursuant to Section 5(g) of the General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, ("Duty to Correct and Report Violation") the Permittee upon learning of a violation of the General Permit must report such violation to the Commissioner of CT DEEP within five (5) days of its occurrence. As a courtesy, the Petitioner would also notify the Town of North Stonington's Wetland Officer and First Selectman.

Question No. 100

Referring to response to CSC 9, are there mechanisms in the PPAs to allow for a reduced facility output?

Response

There are mechanisms in the PPA whereby the Petitioner could reduce the system size of the facility, however, any reduction in the system size would result in a negative impact to the financial viability of the project. To remain viable, the system size will need to remain 15MWac.

Question No. 101

Referring to response to CSC 29d, what was the output of the fixed panels used for this comparison?

Response

The range given in response to CSC 29.d. is the industry accepted range for increased energy output of a PV project using a single-axis tracking system when compared to a fixed tilt system of the same AC nameplate size.

Question No. 102

Did the Petitioner consider designing the project with a two-panel, fixed rack system oriented to the south? If so, why was this design rejected? Was a hybrid design considered for this site, utilizing both a tracker system and fixed mounts? How did the Petitioner determine the current deign is most cost effective?

Response

The reduced output from a fixed tilt system does not allow for the development of a financially viable project. A hybrid system referenced above would also result in a reduced output and would negatively impact the financial viability of the project. Additionally, hybrid systems add complexity and result in an increase in installation cost. The single-axis tracker system proposed provides sufficient energy output and construction cost efficiency.

Question No. 103

Is a tracker system more effective on flat or sloped terrain? What is the maximum ground slope where a tracker system can be used based on structural design limitations and system output?

Response

Typically, racking systems are more effective on flat terrain. The NEXTracker system described in the Petition, is effective on grades up to 6%, in the north-south direction.

Question No. 104

For the tracker system, why was a landscape panel orientation selected as opposed to a portrait orientation? Would a portrait orientation have less of a project footprint?

Response

Landscape is the most efficient orientation for the proposed tracking system. Portrait orientation would result in a footprint that is nearly double the current footprint due to the way modules in tracker systems need to connect electrically.

ATTACHMENT 1

PROJECT LAYOUT MAP

CORONAL ENERGY

PROJECT NAME:	PAWCATUCK SOLAR CENTER
PROJECT LOCATION:	ELLA WHEELER ROAD NORTH STONINGTON, CT 06359
DRAWN BY:	MJW
CHECKED BY:	BC
APPD BY:	MB
DATE:	
FILE NAME:	
DRAWING NO.	EXH-C
PAGE:	1 OF 1

BY	DATE	DESCRIPTION
MJW	08.21.18	PRELIMINARY

LEGEND

- SOLAR TRACKER
- EQUIPMENT PAD
- PROPOSED ROAD
- PROPERTY LINE
- 25FT SETBACK
- O/H — O/H — EXISTING OVERHEAD LINE
- FLOODPLAIN
- LOD — LOD — LIMIT OF DISTURBANCE
- LOC — LOC — LIMIT OF CLEARING
- STREAM
- WETLAND

0 250' 500' 1000'

SCALE: 1" = 500'

CORONAL ENERGY

TREE CLEARING MAP

LEGEND

- PROPERTY LINE (ACRES: 353.8)
- TREES-CLEAR & GRUB (ACRES: 74.2)
- TREES-CLEAR, NO GRUB (ACRES: 13.5)
- TREES-SELECTIVE CLEARING (ACRES: 2.7)
- SOLAR TRACKER
- EQUIPMENT PAD
- PROPOSED ROAD
- O/H — O/H — EXISTING OVERHEAD LINE
- FLOODPLAIN
- LOD — LOD — LIMIT OF DISTURBANCE
- LOC — LOC — LIMIT OF CLEARING
- STREAM
- WETLAND

0 250' 500' 1000'

SCALE: 1" = 500'

PROJECT NAME: PAWCATUCK SOLAR CENTER

PROJECT LOCATION: ELLA WHEELER ROAD NORTH STONINGTON, CT 06359

DRAWN BY: MJW | CHECKED BY: BC | APPD BY: MB

DATE: | FILE NAME: | DRAWING NO. EXH-D

PAGE: 1 OF 1

DESCRIPTION	DATE	BY
PRELIMINARY	08.21.18	MJW

CORONAL ENERGY

TREE SHADING MAP

LEGEND

- ANNUAL SHADE PATH (10AM-2PM)
- PROPERTY LINE (ACRES: 353.8)
- TREES-CLEAR & GRUB (ACRES: 74.2)
- TREES-CLEAR, NO GRUB (ACRES: 13.5)
- TREES-SELECTIVE CLEARING (ACRES: 2.7)
- SOLAR TRACKER
- EQUIPMENT PAD
- PROPOSED ROAD
- O/H — O/H — EXISTING OVERHEAD LINE
- FLOODPLAIN
- LOD — LOD — LIMIT OF DISTURBANCE
- LOC — LOC — LIMIT OF CLEARING
- STREAM
- WETLAND

N

0 250' 500' 1000'

SCALE: 1" = 500'

PROJECT NAME: PAWCATUCK SOLAR CENTER

PROJECT LOCATION: ELLA WHEELER ROAD NORTH STONINGTON, CT 06359

DRAWN BY: MJW | CHECKED BY: BC | APPD BY: MB

DATE:

FILE NAME:

DRAWING NO. EXH-E

PAGE: 1 OF 1

DESCRIPTION	DATE	BY
PRELIMINARY	08.21.18	MJW

INTERCONNECTION EXHIBIT

EXPECTED POINT OF COMMON COUPLING WITH (N) EVERSOURCE-BUILT OVERHEAD 13.8kV FEEDER (EXACT LOCATION TBD BASED RESULTS OF ONGOING INTERCONNECTION STUDIES)

(N) PROJECT-BUILT OVERHEAD 13.8kV GEN-TIE FEEDER TO POCC

EXPECTED LOCATION OF PROJECT SWITCHGEAR AND METERING

(E) EVERSOURCE SHUNOCK SUBSTATION

LEGEND

- PROPERTY LINE
- SOLAR TRACKER
- EQUIPMENT PAD
- PROPOSED ROAD
- O/H — EXISTING OVERHEAD LINE
- FLOODPLAIN
- LOD — LIMIT OF DISTURBANCE
- LOC — LIMIT OF CLEARING
- STREAM
- WETLAND

N

0 100' 200' 400'

SCALE: 1" = 200'

CORONAL ENERGY

PROJECT NAME: PAWCATUCK SOLAR CENTER

PROJECT LOCATION: ELLA WHEELER ROAD NORTH STONINGTON, CT 06359

DRAWN BY: MJW | CHECKED BY: BC | APPD BY: MB

DATE:

FILE NAME:

DRAWING NO. EXH-F

PAGE: 1 OF 1

BY	DATE	DESCRIPTION
MJW	08.21.18	PRELIMINARY