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February 8, 2022

Melanie Bachman
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **PETITION NO. 1443A - SR North Stonington, LLC petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 9.9-megawatt AC solar photovoltaic electric generating facility on five parcels located north and south of Providence New London Turnpike (State Route 184), west of Boombridge Road and north of Interstate 95 in North Stonington, Connecticut, and associated electrical interconnection**
Reopening of this petition based on changed conditions pursuant to Connecticut General Statutes §4-181a(b)

Dear Attorney Bachman:

SR North Stonington, LLC hereby submits its responses, including Attachments 1 through 5, to the Connecticut Siting Council's (Council) Interrogatories issued on January 25, 2022 in connection with the above-referenced Petition.

If you have any questions concerning this submittal, please contact me at your convenience.

Sincerely,



Jonathan H. Schaefer

Enclosures (One original and fifteen copies of Responses to Interrogatories 1 through 24 and Attachments 1-5)

24198009-v1

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

IN RE:	:	
	:	
SR NORTH STONINGTON, LLC PETITION	:	PETITION NO. 1443A
FOR A DECLARATORY RULING,	:	
PURSUANT TO CONNECTICUT GENERAL	:	
STATUTES §4-176 AND §16-50K, FOR THE	:	
PROPOSED CONSTRUCTION,	:	
MAINTENANCE AND OPERATION OF A 9.9-	:	
MEGAWATT AC SOLAR PHOTOVOLTAIC	:	
ELECTRIC GENERATING FACILITY ON	:	
FIVE PARCELS LOCATED NORTH AND	:	
SOUTH OF PROVIDENCE NEW LONDON	:	
TURNPIKE (STATE ROUTE 184), WEST OF	:	
BOOMBRIDGE ROAD AND NORTH OF	:	
INTERSTATE 95 IN NORTH STONINGTON,	:	
CONNECTICUT, AND ASSOCIATED	:	
ELECTRICAL INTERCONNECTION	:	FEBRUARY 8, 2022

RESPONSES OF SR NORTH STONINGTON, LLC
TO CONNECTICUT SITING COUNCIL INTERROGATORIES

On January 25, 2022, the Connecticut Siting Council (Council) issued Interrogatories to SR North Stonington, LLC, (Petitioner), relating to Petition No. 1443A. The Petitioner offers the following responses.

Question No. 1

For the proposed Modified Project identified in the December 1, 2021 Motion to Reopen and Modify due to Changed Conditions (Motion to Reopen), would energy and renewable energy certificates (RECs) also be sold to The Connecticut Light and Power Company d/b/a Eversource Energy and The United Illuminating Company per the DEEP Small-Scale RFP?

Response

The Modified Project would be subject to the same Power Purchase Agreements (PPAs) described in Petitioner's original filing with the Council. Thus, all of the power produced by the

Modified Project will be sold to The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) and The United Illuminating Company (UI).

Question No. 2

Does the Petitioner plan to participate in ISO-NE Forward Capacity Auction #16? Does the Petitioner intend to participate in future Forward Capacity Auctions? If yes, which auction(s) and capacity commitment period(s)?

Response

Currently, there are no plans to participate in the ISO-NE Capacity Auction. The option will be evaluated at each annual auction milestone.

Question No. 3

Provide the cost estimate for the Modified Project.

Response

The Modified Project, as currently designed, is estimated to be a total capital investment of between \$15 million and \$25 million, which includes project costs, land acquisition, and interconnection grid improvements. Although the project has been downsized, there has been significant market fluctuation and increased supply chain costs since the last project estimate was provided in July 2021.

Energy Output

Question No. 4

Referencing page 6 of the Motion to Reopen, are the proposed 480-Watt solar panels bifacial? Is that wattage based on the front side of the panel only? Provide a copy of the specifications sheet for the solar panels.

Response

The proposed 480-Watt solar panels will be bifacial. The rated wattage represents the power output of the front face of an individual module. The manufacturer lists the total wattage of 525W when bifacial gains contribute. Refer to “Electrical Characteristics” on the specification sheet for these solar panels, which is attached as Attachment 1.

Question No. 5

Estimate the capacity factor for the Modified Project.

Response

The estimated capacity factor of the Modified Project is 19.7%.

Question No. 6

Is the Modified Project designed to accommodate a potential future battery storage system? If so, please indicate the anticipated size of the system, where it may be located on the site, and the impact it may have on the RFP or PPA.

Response

The Petitioner has no plans to incorporate a battery storage system into the Modified Project.

Question No. 7

Could the Modified Project be designed to serve as a microgrid?

Response

The Modified Project was not contemplated to serve as a microgrid. Doing so would require extensive design changes, including, but not limited to the inclusion of an energy storage component.

Site Components and Solar Equipment

Question No. 8

Provide the lengths of the proposed access drives (in linear feet) for each of the two array areas for the Modified Project.

Response

The length of the access drives is 1,483 linear feet in the western array and 2,228 linear feet in the eastern array for a total of 3,711 linear feet.

Question No. 9

Approximately how many megawatts AC are each of the two solar array areas for the Modified Project?

Response

The Modified Project is estimated to produce 8.35 MW (AC). The western array makes up approximately 65% of the project output or 5.4 MW. The eastern array makes up approximately 35% of the project output or 2.92 MW.

Question No. 10

Provide the areas (in acres) bounded by the fence for each of the two array areas for the Modified Project.

Response

The Modified Project will have a total of 31.49 acres within the fenced area surrounding each array. The western array fenced area contains 20.92 acres and the eastern array fenced area contains 10.57 acres.

Interconnection

Question No. 11

Referencing Petition No. 1443 Findings of Fact #96 and #97, does the distribution impact study need to be revised based on the Modified Project? If yes, provide status or results of such modified distribution impact study.

Response

Eversource has confirmed that because the system size is decreasing, a modified distribution impact study is not required.

Environmental

Question No. 12

Referencing page 9 of the Motion to Reopen, has the Petitioner received a final Natural Diversity Database Determination Letter from the Department of Energy and Environmental Protection (DEEP)? If yes, provide a copy of such letter.

Response

As of the date of this filing, a final Natural Diversity Database Determination Letter has not yet been received from the Department of Energy and Environmental Protection (DEEP). (See also DEEP's February 7, 2022 Comment Letter, p. 2).

Question No. 13

Did the Petitioner conduct a Shade Study Analysis? Would shading present any challenges for the Modified Project? If so, of the approximately 35 acres of tree clearing for the Modified Project, approximately what acreage constitutes mitigation for shading? How were the limits of tree shading determined?

Response

The shading analysis the Petitioner conducted for the version of the project the Council previously considered remains applicable to the Modified Project. A minimal number of trees (e.g., less than 1%) that will be cleared for the Modified Project are to mitigate shading. While the Petitioner could clear more trees to maximize energy production, in order to preserve trees, reduce environmental impacts, and reduce visual impacts, the Petitioner has elected to not to do so.

Question No. 14

Referencing Petition No. 1443 Findings of Fact #138 and #139, would the Modified Project comply with DEEP Noise Control Standards? Provide the worst-case projected sound level at the surrounding receptors based on the Modified Project.

Response

The Noise Impact Assessment (NIA) (Petition, Exhibit N) includes the worst-case projected sound level at the surrounding receptors based on the originally proposed project. The Petitioner expects noise levels from the Modified Project will be less than the levels projected in the NIA for the arrays in the originally proposed project, because several of the inverters have been removed and several of the remaining inverters have been moved to locations further from surrounding receptors.

Question No. 15

Referencing Petition No. 1443 Finding of Fact #142, please provide a net carbon dioxide reduction update based on the Modified Project.

Response

See Attachment 2.

Question No. 16

Referencing Petition No. 1443 Finding of Fact #222, were eastern spadefoot surveys completed? If yes, provide a copy of the final eastern spadefoot survey report.

Response

Yes, the survey was completed, and the report is attached as Attachment 3. No spadefoot toads were found onsite. The Petitioner is committed to implementing the habitat enhancements and species protection measures during construction recommended in this report.

Question No. 17

Referencing Petition No. 1443 Finding of Fact #178, please update the Wetland Impact Area Table based on the Modified Project.

Response

Revisions to the Wetland Impact Area Table are provided below, reflecting a reduction of wetland impacts associated with the Modified Project design.

	Original Project	Revised Project	Modified Project
	Wetland Impact Areas in Square Feet	Wetland Impact Areas in Square Feet	Wetland Impact Areas in Square Feet
Wetland A-2 (Culvert 1)*	1,136	628	n/a
Wetland B-2 (Culvert 2)*	257	n/a	n/a
Wetland B/1B (Culvert 3)	2,334	2,092	2,092
Wetland A/1A (Culvert 4)	279	0	0
Total	4,006	2,720	2,092

*Wetland areas A-2 and B-2 are located north of Providence New London Turnpike.

Question No. 18

Would the Modified Project be consistent with the 2015 U.S. Army Corps of Engineers Vernal Pool Best Management Practices?

Response

Yes, the Modified Project is consistent with the 2015 U.S. Army Corps of Engineers Vernal Pool Best Management Practices, as discussed below with further detail provided in the response to Question No. 19. The U.S. Army Corps of Engineers New England District relies on a methodology developed by Calhoun titled Vernal Pool Best Management Practices (BMPs) (January 2015); the Connecticut Siting Council also recognizes this methodology. These BMPs focus on conserving essential forested travel corridor habitats used by vernal pool indicator species (i.e., wood frogs, spotted salamander, etc.), known as “directional corridors”. This updated BMPs methodology is in contrast with earlier assessment guidance that relied on a concentric circle approach. The directional corridor methodology focuses on conserving the network of connected habitat elements along these directional corridors that link habitats essential to vernal pool species (i.e., breeding pools, forested wetlands, forested uplands). As discussed in the response to Question No. 19, principal directional vernal pool corridors have been preserved with the Modified Project, consistent with the BMPs guidance, resulting in no likely adverse impact to vernal pools.

Therefore, the Modified Project would comply with the BMPs and not result in a likely adverse impact to VP-E.

Question No. 19

Referencing Petition No. 1443 Finding of Fact #183, would all vernal pools have less than 25 percent post-construction development of the 100-foot to 750-foot Critical Terrestrial

Habitat (CTH) areas for the Modified Project? If 25 percent is exceeded for any vernal pools, please identify such vernal pools and estimate the percent post-construction development of the CTHs for each.

Response

An analysis of the Modified Project's development within the CTH of the ten (10) vernal pools located on the subject property has been prepared and presented in the Vernal Pool Analysis Map and Tables provided in Attachment 4.

The Modified Project will not impact the 100-foot Vernal Pool Envelope (0-100' from the vernal pool edge) for any of the vernal pools. The Modified Project will not exceed 25% development of the CTH in the proposed condition for all but three vernal pools: Vernal Pool E (“VP-E” - 46% developed CTH), Vernal Pool C (“VP-C” - 28%), and Vernal Pool I (“VP-I” - 29%) based on the Modified Project’s proposed limit of clearing. If the Modified Project’s fenced limits are used in this evaluation, the following is the proposed CTH developed condition for these three vernal pools: VP-E (43%), VP-C (27%), and VP-I (26%).

When evaluating a project’s impact to the CTH, it is important to identify and assess impacts to essential herpetofauna directional corridors per the BMPs (refer to the response to Question No. 18 above) that link the breeding pool to wooded terrestrial habitat (considered optimal habitat for the primarily forest dwelling vernal pool indicator species) and wetland habitats that are important for foraging, cover, hibernation, and migration.

For VP-E, the Modified Project provides an approximately 150-foot buffer (to limit of disturbance)/approximately 200 feet (to fence line) from the west solar array. An approximately 400-foot buffer is being provided on the east side of VP-E to the solar array located in the eastern portion of the subject property. The primary directional corridor for VP-E is associated with

surrounding Wetland E, particularly to the north where it links to optimal forested terrestrial habitat in the northeast corner of the subject property. This conserved area on the subject property contains optimal CTH habitat that supports forested wetland habitat that would be used during the summer and intervening/adjacent forested uplands that provide suitable habitat for both migration linking those habitats as well as optimal terrestrial hibernation habitat. The relative proximity of the western array's stormwater basin to VP-E and its principal directional corridor results in the potential for that basin to act as a 'decoy pool' during breeding. To address that possible concern, wildlife exclusion fencing (i.e., Animex® wildlife fencing, or equivalent) is recommended around the stormwater basin. Based on this evaluation and recommendation, the Modified Project would comply with the BMPs and not result in a likely adverse impact to VP-E.

For VP-I, the Modified Project provides an approximately 200-foot buffer (to limit of disturbance/fence line) from the east solar array. An approximately 430-foot buffer is being provided on the west side of VP-I to the west solar array. The primary directional corridor for VP-I is very similar to VP-E being associated with Wetland E, particularly to the north where it links to optimal forested terrestrial habitat in the northeast corner of the subject property. With VP-I being located in the northeast limits of the former gravel pit area and areas to the south also disturbed by this former mining operation, the altered terrestrial habitat that is dominated by invasive shrub species is considered suboptimal for vernal pool indicator species due to the lack of forested upland or wetland habitat that these species rely upon. Therefore, the forested Wetland E corridor and adjacent forested uplands would serve as the principal directional corridor, linking to additional optimal forested terrestrial habitat in the north-central portion of the subject property. In similar fashion to VP-E, the relative proximity of a stormwater basin at

the south end of the east solar array to VP-I and its principal directional corridor results in the potential for that basin to act as a ‘decoy pool’ during breeding. To address that possible concern, wildlife exclusion fencing (i.e., Animex® wildlife fencing, or equivalent) is recommended around the stormwater basin. Based on this evaluation and recommendation, the proposed Project would comply with the BMPs and not result in a likely adverse impact to VP-I.

For VP-C, the proposed Modified Project provides an approximately 270-foot buffer (to limit of disturbance/fence line) from the east solar array and an approximately 830-foot buffer from the west solar area. The primary directional corridor for VP-C is associated with surrounding Wetland C and adjacent Wetland B just to the east. Both of these wetlands, particularly Wetland B, provide linkage to optimal forested terrestrial habitat in the far eastern portion of the subject property along with habitat off-site to the south. These areas located primarily in the eastern portion of the subject property contain more optimal CTH habitat that includes both forested wetland and upland habitats that serve as the principal directional corridor for VP-C. Similar to VP-I, the relative proximity of the eastern array’s stormwater basin to VP-C and its principal directional corridor results in the potential for that basin to act as a “decoy pool” during breeding. To address that possible concern, wildlife exclusion fencing (i.e., Animex® wildlife fencing, or equivalent) is recommended around the stormwater basin. Based on this evaluation and recommendation, the Modified Project would comply with the BMPs and not result in a likely adverse impact to VP-C.

Question No. 20

Referencing Attachment A – Preliminary Site Layout Plan of the Motion to Reopen, the electrical interconnection proposes to be underground. The route on the plan appears to traverse a wetland. Identify the amount of inland wetland impacts and any mitigation to minimize such

impacts.

Response

For the electrical connection between the eastern array and the western array medium voltage cable will either go overhead spanning the width of Wetland E or bore under the width of Wetland E. In either scenario there will be no permanent impacts to Wetland E. The interconnection with Eversource will be via overhead wires on poles.

Question No. 21

Where is the nearest parcel used for publicly accessible recreational purposes? Describe the visibility of the Modified Project from this parcel.

Response

The closest recreational area accessible by the public is the Samuel Cote Preserve on the south side of Route 216 (Clarks Falls Road) approximately nine-tenths (0.9) of a mile from the limits of disturbance for the Modified Project. The Modified Project will not be visible from the Samuel Cote Preserve.

Facility Construction

Question No. 22

Referencing pages 10 and 11 of the Motion to Reopen, what is the status of the DEEP Stormwater Permit?

Response

Petitioner is actively consulting with the DEEP Stormwater program representatives, but the stormwater permit has not yet been issued. The stormwater permit cannot be issued until a Final NDDB Letter of Determination is received. The DEEP Stormwater program representatives have not, to date, mentioned anything about the need for any significant changes

to the site layout. Based on these ongoing discussions, Petitioner does not anticipate the need to further change the Modified Project layout.

Question No. 23

With regard to earthwork required to develop the site for the Modified Project, provide the following:

- a) Will the site be graded? If so, in what areas?
- b) What is the desired slope within the solar array areas?
- c) Could the solar field areas be installed with minimal alteration to existing slopes?
- d) If minimal alteration of slopes is proposed, can existing vegetation be maintained to provide ground cover during construction?
- e) Estimate the amounts of cut and fill in cubic yards for the access road(s).
- f) Estimate the amounts of cut and fill in cubic yards for solar field grading.
- g) If there is excess cut, will this material be removed from the site property or deposited on the site property?

Response

- a) Yes, grading will occur as needed to install the stormwater basins, ditching, and access roads. The Modified Project will require significantly less grading overall than the previous design.
- b) A majority (>95%) of the slopes for the Modified Project will be between zero percent (0%) and fifteen percent (15%). A small percentage (>5%) of slopes are between fifteen percent and seventeen and half percent (17.5%).
- c) The Modified Project utilizes a racking system that allows for greater slopes (i.e., up to twenty percent (20%)) if necessary.

- d) Yes, where possible the Petitioner will be maintaining existing vegetation.
- e) With the Modified Project, access road grading will now involve 1,556 cubic yards (cy) of cut – an approximately 30% reduction from the project previously considered by the Council (Revised Project) – and 2,366 cy of fill – an approximately 8% increase from the Revised Project.
- f) With the Modified Project, solar field grading will now involve 555 cy of cut – an approximately 47% reduction from the Revised Project – and 216 cy of fill – an approximately 69% reduction from the Revised Project. The remaining earthwork on the site is in connection with stormwater control features.
- g) Any excess cut material will be removed from the site.

Decommissioning

Question No. 24

Has the manufacturer of the proposed solar panels for the Modified Project conducted Toxicity Characteristic Leaching Procedure (TCLP) testing to determine if the panels would be characterized as hazardous waste at the time of disposal under current regulatory criteria? If so, submit information that indicates the proposed solar modules would not be characterized as hazardous waste. If not, would the Petitioner agree to install solar panels that are not classified as hazardous waste through TCLP testing?

Response

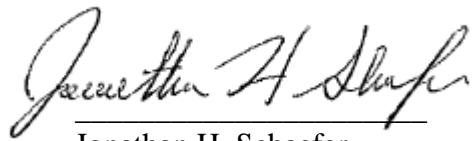
The manufacturer of the proposed solar panels for the Modified Project conducted Toxicity Characteristic Leaching Procedure (TCLP) testing and determined that the panels would not be characterized as hazardous waste at the time of disposal, under current regulatory and testing criteria. A copy of the TCLP testing report is attached as Attachment 5.

CERTIFICATE OF SERVICE

I hereby certify that on the 8th day of February 2022, a copy of the foregoing was sent,
via electronic mail, to:

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