DRAFT

Docket No. 522
Stafford Solar One, LLC
92 Upper Road, Stafford

Development & Management (D&M) Plan
Staff Report
March 28, 2025

Notice

On November 8, 2024, the Connecticut Siting Council (Council) issued a Certificate of Environmental Compatibility and Public Need (Certificate) to Stafford Solar One, LLC (SSO) for the construction, maintenance, and operation of a 4.0-megawatt (MW) AC solar photovoltaic electric generating facility on approximately 14.8 acres of an approximate 59-acre parcel located at 92 Upper Road, Stafford, and associated electrical interconnection (Project). In its Decision and Order (D&O), the Council required SSO to submit a Development and Management (D&M) Plan in compliance with Regulations of Connecticut State Agencies (RCSA) §§16-50j-60 through 16-50j-62.

On February 21, 2025, in compliance with RCSA §16-50j-61(d), SSO submitted the D&M Plan for the facility to the Council and the service list. No comments were received.

On March 5, 2025, the Council issued interrogatories to SSO. On March 18, 2025, SSO submitted responses to the interrogatories.

D&M Plan

Condition No. 1 of the Council's D&O requires a copy of the Department of Energy and Environmental Protection (DEEP)-issued Stormwater Permit to be submitted prior to the commencement of construction. DEEP has granted preliminary approval of the Stormwater Permit. Formal approval will be issued after receipt of required letters of credit.

Condition No. 2 of the Council's D&O requires the following information to be included in the D&M Plan:

a. **A final site plan including, but not limited to, final facility layout, access drive, electrical interconnection including utility pole locations, agricultural-style fence design, and equipment pads;**

   The final site plan includes a single-axis tracking system in the northern portion of the array and a fixed tilt system in the southern portion of the array. The Council's D&O was based on an entirely fixed-tilt system. After the Certificate was issued, SSO modified the facility site layout to include a tracker system to increase output from approximately 4.0 MW to approximately 4.5 MW.

   The original fenced solar array was proposed to occupy a 14.0-acre area. The modified fenced solar array would occupy a 14.8-acre area.

The northern tracker system will feature 590-watt solar photovoltaic panels arranged in north-south rows separated by an approximate 6-foot wide vegetated aisle. At maximum tilt, the tops of the panels will be approximately 8.5 feet above grade at the highest point and 2 feet above grade at the lowest point.

The southern fixed tilt array will feature 465-watt solar photovoltaic panels arranged in east-west rows separated by a 13-foot wide vegetated aisle. The panels will be at a 25 degree angle, 8 to 10 feet above grade at the highest point and 3 to 5 feet above grade at the lowest point, depending on topography.

Both the 465-watt panels (First Solar) and the 590-watt panels (Phono) meet Toxicity Characteristic Leaching Procedure (TCLP) nonhazardous waste regulatory criteria.

Two 12-foot by 30-foot gravel equipment areas will be installed in the southern portion of the site to support concrete pads for two electrical transformers and switchgear. A steel-frame racking system will be installed north of the pads, supporting 32 inverters.

Access to the facility site will utilize a new 12-foot wide, 1,750-foot long gravel access drive extending north from Upper Road to the transformer/switchgear pads. A four-foot wide, one foot deep stormwater infiltration trench will be installed on the west side of the access drive.

An underground electrical interconnection route will extend from the electrical pads along the access drive, transitioning to overhead near Upper Road to connect to Eversource's existing distribution circuit. The overhead portion would be supported on five utility poles, with the two poles closest to Upper Road supporting Eversource's meter and recloser equipment. The other three poles would support SSO's meter, recloser and disconnect switch.

The facility will be enclosed by a 7-foot tall agricultural style perimeter fence supported by pressure treated pine posts. It will be installed flush with the ground to support agricultural activities at the site.

The solar array area will be seeded with a forage and pasture mix which includes mostly grasses to support livestock. A small component consists of clover and wildflower species.

b. Relocation of the transformer/inverter pads approximately 200 feet to the northwest and reorientation of the inverter layout to increase the distance to the abutting property line;

The transformer/inverter pads were shifted to the northeast rather than the northwest to avoid site layout and topography constraints.

On March 18, 2025, in response to Council Interrogatory No. 7, SSO submitted Revised Site Plans with a modified inverter/transformer layout that increased the distance to the nearest property line (112 Upper Road) by approximately 30 feet by reorienting the inverter layout. With this relocation, the transformers and inverters are 213 feet and 220 feet respectively, from the property line.

c. A report after consultation with Eversource as to the feasibility of relocating the three interconnection poles further north to reduce visibility;

Eversource maintains that its interconnection poles are to remain as close to the street as possible to minimize the length of Eversource's construction on private property, minimize the distance it must travel to maintain their equipment, and minimize the extent of the associated utility service easement.

d. Erosion and sedimentation control plan consistent with the Connecticut Guidelines for Erosion and Sedimentation Control and the DEEP-issued Stormwater Permit including, but not limited to, temporary sediment basin detail, site stabilization measures during construction, inspection and reporting protocols;

The D&M Plan contains Erosion and Sedimentation (E&S) Control Plans consistent with the *Connecticut Guidelines for Soil Erosion and Sediment Control*.

E&S control measures will be established in accordance with the DEEP Stormwater Permit and include, but are not limited to, a stone construction work area entrance, siltation barriers around the perimeter of the work area, erosion control blankets, mulch, and temporary seeding. Disturbed areas will be stabilized after no more than 14 days if no work occurs in the specific area. The Site Plans specify the use of 100 percent biodegradable erosion control blankets.

Intermediary E&S controls will be established downgradient of grubbing locations. A temporary soil stockpile area will be established at the site, enclosed by E&S controls. A temporary sediment basin is not proposed.

Inspections and reporting will be conducted in accordance with the DEEP Stormwater Permit. All E&S controls will be inspected by the contractor on a daily basis and by an engineer on a weekly basis and within 24 hours of a rain event of greater than 0.5 inch. Repairs to E&S controls by the contractor will occur within 24 hours, when necessary.

Once construction is complete, all disturbed areas will be final seeded. E&S controls will remain in place until site stabilization, as verified by the engineer of record.

e. Site construction detail/phasing plan including, but not limited to, construction laydown area, site clearing/grubbing, site grading, excess earth material disposal locations, and soil stockpile locations;

The total area of disturbance is approximately 19.3 acres. Approximately 1.8 acres of tree clearing is required to construct the facility.

The construction phasing plan includes, but is not limited to, installation of the construction entrance and perimeter erosion controls, and construction laydown area followed by limited tree clearing and grubbing.

The construction laydown area is located in the southeast portion of the site. The soil stockpile is located at the south end of the site, adjacent to the access drive.

Trees and stumps will be removed within the demarcated clearing limits. Stumps outside of grading areas will be left in place to reduce the potential for soil erosion. Woody debris will either be removed from the site or chipped for use during construction. Once tree clearing/grubbing is complete, the access drive and associated water infiltration trench will be constructed, followed by the installation of solar array infrastructure, fencing and utilities.

Once construction is complete, the laydown area will be removed. Soils that are stockpiled will spread on site.

f. Whip-poor-will Protection Plan consistent with the DEEP-recommended protective measures in the Natural Diversity Database Determination dated February 29, 2024;

The D&M Plan includes a Whip-poor-will Protection Plan.

Based on DEEP's NDDB Determination letter dated February 29, 2024, no cutting or clearing of trees and shrubs, or disturbance to the forest floor, will occur between May 1 and July 30.

g. Final structural design for the racking system stamped by a Professional Engineer duly licensed in the State of Connecticut;

SSO will submit the final structural design for the racking system stamped by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction.

h. An agricultural activity plan for the site, if an agricultural activity is implemented, with a document that shall indemnify and hold harmless the Council, its agents, representatives and employees from any and all losses, claims, actions, costs and expenses, judgments, subrogations, or other damages resulting from any injury to a person or to property arising out of the presence of third-parties within the fenced solar facility site; and

SSO will conduct sheep grazing as an agricultural activity at the site. A Sheep Grazing Plan was developed in conjunction with the sheep farmer (Hillview Farm). Four temporary paddocks will be established within the solar array area, each approximately 3.5 acres in size and isolated by temporary electric fencing. Approximately 34 sheep will be on-site, rotated among the four temporary paddocks for about 15 days per paddock, as established by the sheep farmer.

Sheep will be visually inspected on every rotation day by the sheep farmer. Water and mineral feed to support grazing activities will be delivered to the site by the sheep farmer. Sheep will typically be on-site from mid-April until early October, depending on weather and forage conditions.

Signage will be displayed at the main gate with emergency contact information for the sheep manager. In the event of an emergency, animals would remain inside the site until the sheep manager can safely remove them.

SSO included a Hold Harmless Agreement with the Sheep Grazing Plan, signed by the Chief Legal Officer for Verogy and its subsidiaries.

i. Construction hours/days of the week.

Work hours will be Monday through Friday 7:00 a.m. to 6:00 p.m. and Saturday from 8:00 a.m. to 5:00 p.m.

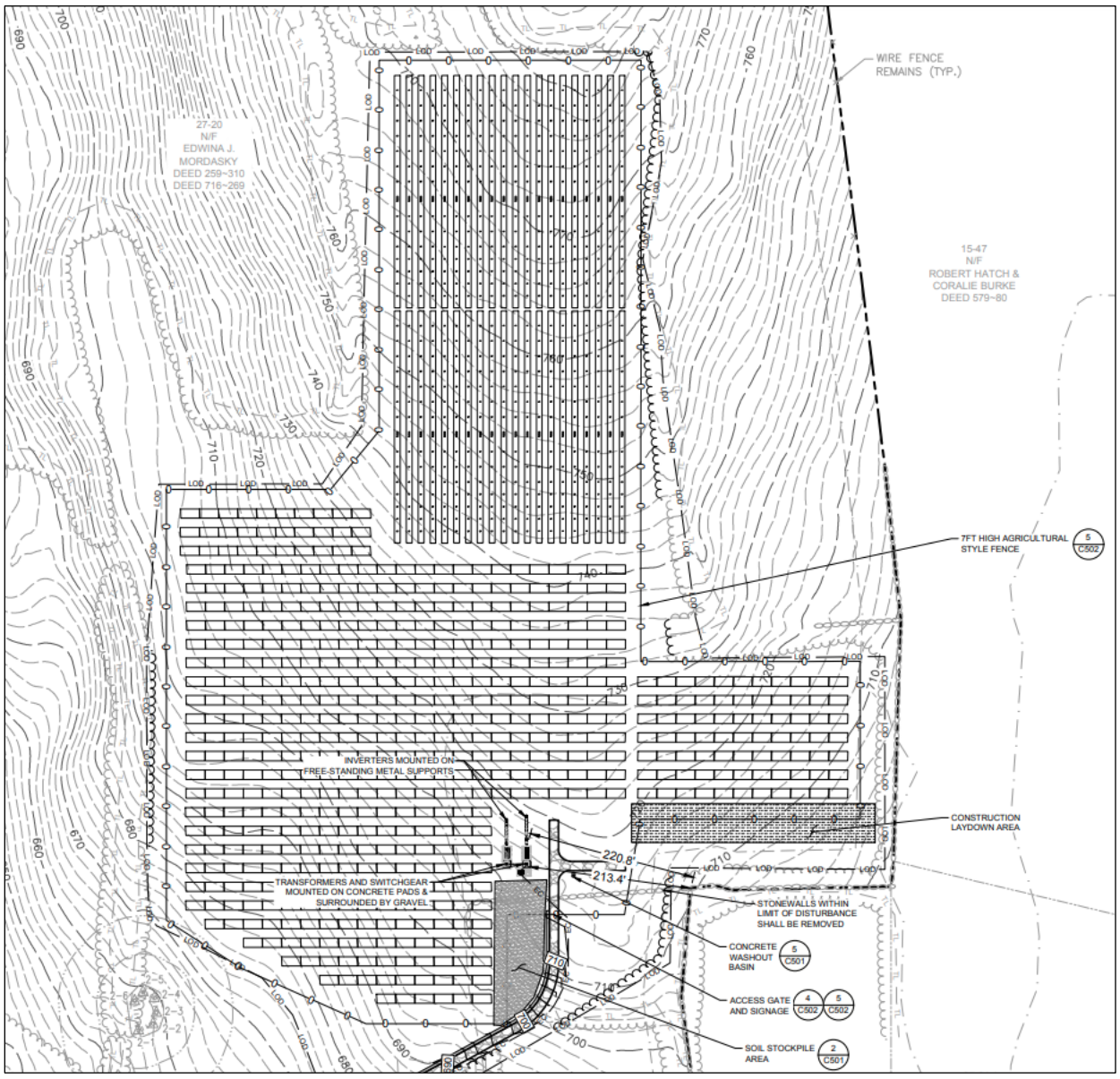
Conclusion

The D&M Plan complies with requirements of RCSA §16-50j-60 to 16-50j-62 and is consistent with the Council's D&O for Docket No. 522, dated November 8, 2024.

If approved, staff recommends the following conditions:

1. Submit the final structural design drawings for the racking system based on the final solar panel design and stamped by a Professional Engineer duly licensed in the State of Connecticut prior to commencement of construction; and
2. Submit the specification sheets for the Phono 590-watt solar photovoltaic panels prior to commencement of construction.

Revised Solar Array Layout and Interconnection



(entire access road not shown for clarity)