

**PETITION NO. 1598** – Windsor Solar One, LLC petition for a } Connecticut  
declaratory ruling, pursuant to Connecticut General Statutes §4-176 }  
and §16-50k, for the proposed construction, maintenance and } Siting  
operation of a 3.0-megawatt AC solar photovoltaic electric generating }  
facility located at 445 River Street, Windsor, Connecticut, and } Council  
associated electrical interconnection.

May 3, 2024

## **DRAFT Opinion**

### **Introduction**

On November 13, 2023, Windsor Solar One, LLC (WSO) submitted a petition to the Connecticut Siting Council (Council), pursuant to Connecticut General Statutes (CGS) §16-50k and §4-176, for a declaratory ruling for the construction, maintenance, and operation of a 3.0-megawatt AC solar photovoltaic electric generating facility located at 445 River Street in Windsor, Connecticut, and associated electrical interconnection (Petition or Project).

After the filing of the Petition, on December 11 and 18, 2023, Keith and Lisa Bress, and the Town of Windsor, parties to this proceeding, respectively, submitted requests for a public hearing. On December 21, 2023, the Council granted the requests for a public hearing, which was held on February 8, 2024.

### **Jurisdiction**

As it applies to the Petition, CGS §16-50k states in relevant part, "...the Council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling...(B) the construction or location... of any grid-side distributed resources project... with a capacity of not more than sixty-five megawatts, as long as such project meets the air and water quality standards of the Department of Energy and Environmental Protection and the Council does not find a substantial adverse environmental effect..." The Project is a "grid-side distributed resources" facility, as defined in CGS §16-1(a)(37) and has a capacity of approximately 3.0 MW.

Public Act 17-218 requires, 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 (DEEP) in any solicitation issued prior to July 1, 2017, pursuant to section 16a-3f, 16a-3g or 16a-3j, the Department of Agriculture (DOAg) represents, in writing, to the Council that such project will not materially affect the status of such land as prime farmland or DEEP represents, in writing, to the Council that such project will not materially affect the status of such land as core forest. PA 17-218 also requires that the Council not find a substantial adverse environmental effect in its exercise of jurisdiction over the facilities eligible to be approved by declaratory ruling under CGS §16-50k. There are no exemptions from this provision of PA 17-218.

By letter dated October 4, 2023, DEEP determined the proposed solar facility would not have a material impact on the status of core forest. Although the site does not contain prime farmland soils, WSO consulted with DOAg and proposed sheep grazing at the site as an agricultural co-use. By letters dated October 3, and November 27, 2023, DOAg, determined that the proposed solar facility would not have a material impact on the status of prime farmland with the condition that WSO maintain an agricultural co-use of the site for the life of the Project.

Pursuant to CGS §16-50x, **the Council has exclusive jurisdiction over the construction, maintenance and operation** of the proposed solar photovoltaic electric generating facility.

PA 17-218 does not confer the Council's exclusive jurisdiction upon DOAg or DEEP nor does it permit DOAg or DEEP to impose any enforceable conditions on the construction, maintenance and operation of solar photovoltaic electric generating facilities under the exclusive jurisdiction of the Council. The proposed site is to be used principally for an electric generating facility as defined by CGS §16-50i(a)(3).

Furthermore, the Council does not have jurisdiction or authority over any portion of the host parcel beyond the boundaries of the facility "site." This includes portions of the host parcel retained by the property owner and portions of the host parcel the property owner may lease to third parties. Once a facility is decommissioned, the Council no longer has jurisdiction or authority over the facility "site."

### **Public Benefit**

Pursuant to CGS §16-50p, a public benefit exists when a facility is necessary for the reliability of the electric power supply of the state or for the development of a competitive market for electricity. PA 05-1, An Act Concerning Energy Independence, portions of which were codified in CGS §16-50k, established a rebuttable presumption that there is a public benefit for electric generating facilities selected by the Public Utilities Regulatory Authority in Requests for Proposals (RFP).

The Project was selected in the Shared Clean Energy Facility (SCEF) Program, the electricity and renewable energy credits (RECs) produced by the facility would be sold to Eversource in accordance with a 20-year Tariff Terms Agreement (TTA). A REC certifies that one megawatt-hour of renewable electrical energy has been generated.

WSO would not participate in an ISO-New England, Inc. (ISO-NE) Forward Capacity Auction during the term of the TTA.

### **Proposed Site**

Pursuant to a lease agreement with the property owner, WSO proposes to construct the solar facility on an approximate 13.5-acre site in the northwestern portion of a 47.1-acre host parcel. The host parcel is zoned agricultural and used as a commercial farm that consists of fields, forest, a farmhouse and associated barns and other outbuildings.

The site is located in the northwestern portion of the host parcel within a field area bordering wooded areas. WSO's site lease does not include the portions of the host parcel occupied by the existing farmhouse and outbuildings.

The southern portion of the host parcel is used for crop production and cattle ranching. Land use surrounding the site consists of a condominium complex to the north and west, a forested area and an Amazon distribution facility to the east, and an existing farm and related structures on the host parcel to the south.

### **Proposed Facility**

The Project consists of 7,280 non-reflective photovoltaic panels rated at approximately 520 Watts. The panels would be installed on a single-axis tracker system that would move in a north-south axis to a maximum angle of 60 degrees. The tracker system would be powered by a connection to the transformer on the electrical pad. At maximum tilt, the panels would be approximately 8 feet above grade at the highest point and 3 feet at the lowest point. The tracker system would be arranged in north-south rows across the site, separated by 8- to 11.2-foot-wide vegetated aisles.

Electrical equipment consisting of two transformers, switchgear and 24 inverters mounted on steel frames would be installed within two 60-foot by 25-foot side-by-side equipment areas along the east side of the site, away from River Street. Wiring would extend along the racking system and in underground conduits to the equipment areas.

The Project would be enclosed by a 7-foot tall agricultural style perimeter fence to match the agricultural use of the host parcel. Due to the planned sheep grazing at the site for an agricultural co-use, the proposed fence design would not have a wildlife gap at the bottom in order to protect and contain the sheep; however, the agricultural style fence would have a 4 to 6 -inch mesh size that can allow small wildlife to pass through.

The perimeter fence was initially designed to be 7 feet from the nearest property line at 178 Eastwood Circle and 80 feet from the nearest residence at 166 Eastwood Circle, both located to the north of the site. Based on concerns from the Council and parties and intervenors during the proceeding, the site was redesigned to increase the distance of the fence and solar array to these properties to 100 feet and 185 feet, respectively. The nearest residence to the redesigned solar array is approximately 170 feet to the west of the facility site at 113 Brighton Circle.

Access to the facility would be from a new 16-foot wide, 600-foot long gravel drive extending east from River Street to the equipment areas on the east side of the Site.

#### *Electrical Interconnection*

The site would interconnect to an Eversource 23-kV overhead electric distribution line on River Street, near the intersection with Old River Street. The interconnection route from the equipment area is underground, extending west and then south along River Street. It would transition to overhead using three new utility poles, supporting a meter and switching equipment, then underground for 360 feet to a new utility pole at the corner of Old River Street and River Street supporting a recloser. The electrical interconnection route was developed during consultations with the Town to reduce the visual impact of the poles on nearby residences.

The facility interconnection was reviewed and approved by both Eversource and ISO-NE which determined no off-site upgrades to the existing distribution system are necessary.

#### *Project Alternatives*

WSO selected the host parcel based on availability, suitability, environmental compatibility, and proximity to electrical utilities for interconnection. WSO examined alternatives, including but not limited to, a 3.0 MW carport canopy-mounted solar facility which was not pursued due to economic costs associated with the interconnection route.

Pursuant to CGS §16-50p(g), the Council has no authority to compel a parcel owner to sell or lease property, or portions thereof, for the purpose of siting a facility<sup>1</sup>.

#### *Cost*

The estimated construction cost of the Project is \$6 to 7 million.

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<sup>1</sup> *Corcoran v. Conn. Siting Council*, 284 Conn. 455 (2007); CGS §16-50p(g) (2023)

### **Neighborhood Concerns**

The Council held a publicly noticed public comment session via Zoom remote conferencing on February 8, 2024, commencing at 6:30 p.m. Three members of the public made oral limited appearance statements at the public comment session. While the Council public comment record was open, 20 interested persons provided written limited appearance statements expressing concerns that included, but were not limited to, noise, health effects, location and climate change.

Based on neighborhood concerns regarding noise, WSO modified the proposed facility by conducting a noise study, selecting a different inverter model than the one used at the East Windsor Solar One (Petition 1426) facility, and locating inverters near the abutting Amazon.com LLC property and at least 600 feet from any residential property line. With respect to visibility concerns, WSO revised the landscaping plan to include additional plantings and more evergreen species, relocated panels from the north end of the array to the south end, provided visual simulations, included an agricultural style fence, and redesigned the electric interconnection that avoids the installation of new utility poles adjacent to residences.

### **Public Safety**

The Project would comply with the current National Electrical Code (NEC), the National Electrical Safety Code and the National Fire Protection Association code.

The facility would be remotely monitored on a 24/7 basis by a data acquisition system. Monitoring includes real time performance that can detect production abnormalities and if performance issues are detected, the facility can be remotely shut down.

Prior to commencement of operation, WSO would conduct outreach/training to local emergency responders. Emergency responders could shut down the facility via a manual disconnect switch.

The Project is not located within a Federal Emergency Management Agency designated 100-year or 500-year flood zone.

Notice to the Federal Aviation Administration (FAA) is not required for the solar facility. Notice to the FAA may be required if a crane is utilized at the site during construction.

A glare analysis determined there would be no adverse effect on air navigation.

### *Noise*

Noise emissions from the solar facility would be from the operation of inverters, transformers, and tracker motors during daytime operational hours. The facility would not operate at night.

Noise generated during facility operations would comply with the DEEP Noise Control Standards. Noise resulting from construction is exempt from DEEP Noise Control Standards. Unlike the Petition 1426 facility, the distance from the inverters to residences for this facility is much farther (640 feet vs 180 feet) and the proposed inverter model has a lower noise profile than the model used at the Petition 1426 facility.

Although the noise analysis indicates operation of the facility would comply with DEEP Noise Control Standards, the Council will order a post-construction operational noise study and implementation of noise mitigation measures, if necessary.

Based on concerns from abutting property owners, the Council will order WSO to provide notification to abutting property owners of the commencement of construction and the type of construction activities occurring at the site.

#### *Decommissioning*

The Project has an anticipated design life of approximately 35 years. At the end of the Project's lifespan, it will be fully decommissioned and removed from the property in accordance with provisions of the site lease. The site would be restored to a field that could be used for agricultural production.

The lease is a private agreement between WSO and the property owner. At the end of the lease term, control of the solar facility site reverts back to the property owner. The Council does not have the authority to supersede restoration provisions of the site lease or require additional site restoration conditions beyond those established by the site lease. The property owner would determine site restoration conditions at the time of Project decommissioning.

Project components that cannot be recycled will be removed and disposed of in accordance with regulatory criteria. WSO intends to select solar panels for the Project that meet current Toxicity Characteristic Leaching Procedure (TCLP) criteria for characterization as nonhazardous waste in the event the solar panels are not recycled during decommissioning.

Construction would occur over a four to six-month period with work hours of Monday through Friday from 7:00 AM to 6:00 PM, and Saturday from 7:00 AM to 5:00 PM.

### **Environmental Effects and Mitigation Measures**

#### *Air and Water Quality*

The Project would meet DEEP air quality standards. There would be no air emissions of regulated pollutants or greenhouse gases associated with site operation.

Operation of the facility would not require water use. Water may be used to control dust during construction, if necessary.

The site is not located within a DEEP-designated Aquifer Protection Area.

WSO has developed a preliminary Spill Prevention, Control, and Countermeasure Plan that includes, but is not limited to, measures for prevention, containment, cleanup and reporting. The Council will order WSO to submit a final Spill Prevention Control and Countermeasure Plan with contractor information and appropriate reporting forms.

#### Stormwater

Pursuant to CGS §22a-430b, DEEP retains final jurisdiction over stormwater management and administers permit programs to regulate stormwater pollution. DEEP regulations and guidelines set forth standards for erosion and sedimentation control, stormwater pollution control and best engineering practices. The DEEP Individual and General Permits for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (Stormwater Permit) require implementation of a Stormwater Pollution Control Plan (SWPCP) to prevent the movement of sediments off construction sites into nearby water bodies and to address the impacts of stormwater discharges from a Project after construction is complete. A DEEP-issued Stormwater Permit is required prior to commencement of construction.

DEEP has the authority to enforce Project compliance with its Stormwater Permit and the SWPCP, including, but not limited to, the installation of site-specific water quality protection measures in accordance with designs consistent with the applicable *Connecticut Guidelines for Soil Erosion and Sediment Control* and the *Connecticut Stormwater Quality Manual*.

The Project has been designed to comply with DEEP Stormwater Permit Appendix I and erosion control guidelines. A construction related temporary sediment trap is proposed at the southwest end of the site which will be removed and reseeded after site stabilization is achieved. A stormwater analysis prepared by WSO concluded no permanent stormwater detention basin is necessary as the proposed meadow vegetation within the array area will improve stormwater infiltration over its existing condition as an agricultural field.

#### Wetlands and Watercourses

The Inland Wetland and Watercourses Act (IWWA) strikes a balance between economic activities and wetlands preservation. The impact of a proposed activity on the wetlands and watercourses that may come from outside the physical boundaries of the wetlands or watercourses is a major consideration. Defined upland review areas, such as 100 feet, provide a trigger for reviewing whether a regulated activity is likely to affect wetlands and watercourses. Under CGS §22a-41(d), regulatory agencies shall not deny or condition an application for a regulated activity in an area outside wetlands or watercourses on the basis of an impact or effect on aquatic, plant, or animal life *unless such activity will likely impact or affect the physical characteristics of such wetlands or watercourses*.

A permanent stream with bordering, forested wetlands is located approximately 85 feet southeast of the construction limit of disturbance (LOD) and 150 feet from the nearest solar panel. The LOD is within a field area and no trees associated with the wetland will be removed. No other wetlands or watercourses were identified within 100 feet of the site.

#### *Scenic, Historic and Recreational Values*

WSO performed a Phase 1A and Phase 1B historic and archeological survey of the site indicating the Project would have no effect on historic or archeologic resources listed on the State or National Register of Historic Places. WSO would submit the survey results to the State Historic Preservation Office for comment as required when filing for a DEEP Stormwater Permit.

There are no Town or state designated scenic roads or “blue-blazed” hiking trails maintained by the Connecticut Forest and Park Association within one mile of site.

The site is 0.18 mile east of a section of the Farmington River that is designated as part of the Lower Farmington River and Salmon Brook Wild and Scenic River. Construction of the Project would have no effect on the river.

No comments were received from the Office of Policy and Management or DEEP regarding impacts to scenic quality or resources.

The site would be visible from River Street to the west and the abutting properties to the north and west. To mitigate views of the facility, in consultation with a landscape architect, WSO developed a landscaping plan, for native plantings on the north and west sides of the facility. Based on visibility concerns, during the proceeding, WSO revised the landscaping plan with additional plantings including more evergreen species, in addition to maintaining existing vegetation to the north to the extent feasible.

The landscaping plan has conditions for sufficient watering and the replacement of plants that die off during the warranty period. The Council will order the submission of a final enhanced landscaping plan that includes additional evergreen plantings, the estimated offset for the loss of trees in relation to the 0.2 acres of tree clearing in the eastern portion of the site and annual review and replacement of plantings that die-off after the warranty for the life of the facility as part of the Development and Management Plan.

#### *Fish, Aquaculture and Wildlife*

The site is within a DEEP Natural Diversity Database (NDDDB) buffered area. DEEP issued a preliminary NDDDB review letter for state-listed species identifying one threatened species (American rubyspot), three special concern species (low frostweed, eastern box turtle, American kestrel) and one critical habitat (sand barren) as potentially occurring in the general area of the site. DEEP requested on-site surveys for the low frostweed, American rubyspot, and the sand barren critical habitat and the implementation of protection measures for the eastern box turtle and American kestrel. The Council will order WSO to develop final plans to comply with DEEP-recommended protection/conservation measures prior to commencement of construction.

#### *Agriculture*

There are no prime farmland soils at the site.

The property owner currently grows hay crops on the fields and conducts cattle grazing on the host parcel.

WSO proposes to conduct sheep grazing within the fenced solar array area for vegetation management and to continue an agricultural use of the site. Sheep would be grazed by a third-party farmer, typically during late spring to late summer depending on vegetative growth. It is anticipated 33 sheep would graze among four temporary paddocks over 45-day rotation.

The solar array would be seeded with a pollinator-friendly and livestock grazing plant mix. Sheep would not be allowed outside of the perimeter fence. Vegetation management outside of the fenced array would be conducted by mechanical methods.

To address concerns from abutting property owners regarding livestock grazing, the Council will order WSO to develop a site grazing plan, if applicable, that maximizes the distance of the temporary sheep-grazing paddocks from the property lines of adjacent residential properties.

#### *Forest and Parks*

No state parks or forests are located within the vicinity of the site.

Development of the site will require the removal of approximately 0.2 acres of tree clearing along the edge of the existing field in the eastern portion of the site. The Project would not have a material impact on the status of core forest.

### **Conclusion**

Based on the record of this proceeding, the Council finds that there would not be a substantial adverse environmental effect associated with the construction, maintenance and operation of an approximate 3.0 MW solar photovoltaic electric generating facility and an associated electrical interconnection located at 445 River Street, Windsor, Connecticut.

The proposed Project is a grid-side distributed resources facility with a capacity of less than 65 MW under CGS §16-50k, it was selected under the state's SCEF Program, it is consistent with the state's energy policy under CGS §16a-35k, and the proposed Project would meet all applicable U.S. Environmental Protection Agency and DEEP Air and Water Quality Standards. Therefore, the Council will issue a declaratory ruling for the proposed Project.