

# DRAFT

**Petition No. 1514**  
**Connecticut Green Bank and CEFIA Holdings, LLC**  
**Maloney & Webster Correctional Institutions Solar Facility**  
**900 Highland Avenue, Cheshire, Connecticut**

**Staff Report**  
**August 12, 2022**

## **Introduction**

On May 20, 2022, the Connecticut Siting Council (Council) received a petition from the Connecticut Green Bank, a state quasi-public agency, and CEFIA Holdings, LLC, a wholly owned subsidiary of the Green Bank, (Petitioners), for a declaratory ruling pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k for the construction, operation and maintenance of a 1.95-megawatt alternating current (AC) solar photovoltaic electric generating facility located at the Maloney & Webster Correctional Institutions (MWCI)<sup>1</sup> at 900 Highland Avenue in Cheshire, Connecticut, and associated electrical interconnection (Petition or Project).

Pursuant to Regulations of Connecticut State Agencies (RCSA) §16-50j-40 on or about May 12, 2022, Petitioners notified the abutting property owners and Town of Cheshire (Town) officials, state officials and agencies of the proposed Project. No comments were received.

The Council issued interrogatories to Petitioners on June 14, 2022. Petitioners submitted responses to the Council's interrogatories on July 6, 2022. Given security concerns and restricted access associated with the correctional institution property that necessitate state Department of Correction (DOC) supervision, Petitioners were unable to submit additional photographic documentation of the proposed Project site beyond the photographic documentation within the Petition, which serves as a "virtual" field review of the Project.

Pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act, an administrative agency is required to take an action on a petition for a declaratory ruling within 60 days of receipt. On July 7, 2022, pursuant to CGS §4-176(e), the Council voted to set the date by which to render a decision on the Petition as no later than November 16, 2022, which is the 180-day statutory deadline for a final decision under CGS §4-176(i).

## **Connecticut Environmental Policy Act**

The purpose of the Connecticut Environmental Policy Act (CEPoA) is to improve and coordinate the environmental plans, functions, powers and programs of the state. It requires, "each state department, institution or agency responsible for the primary recommendation or initiation of actions which may significantly affect the environment shall in the case of each such proposed action make a detailed written evaluation of its environmental impact before deciding whether to undertake or approve such action."<sup>2</sup> Actions which may significantly affect the environment include activities undertaken by state departments, institutions or agencies, funded in whole or in part by the state, which could have an impact on

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<sup>1</sup> The host parcel of the proposed solar facility site is owned by the state. The correctional facilities on the host parcel are operated by the state Department of Correction.

<sup>2</sup> Conn. Gen. Stat. §22a-1b(c) (2021).

environmental resources.<sup>3</sup> The Department of Administrative Services (DAS) is the sponsoring state agency of the proposed Project under CEPoA.

DAS initiated the public scoping process under CEPoA by providing notice of the proposed Project to the Council on Environmental Quality (CEQ), the Department of Energy and Environmental Protection (DEEP), the State Historic Preservation Office (SHPO), and the Office of Policy and Management (OPM) in order to determine if an environmental impact evaluation (EIE) should be prepared for development of the proposed solar facility. In response to Petitioners' notice, DEEP commented on the Natural Diversity Database (NDDDB) determination for the Project and how the Project supports state policy goals, and SHPO requested a professional archaeological assessment and reconnaissance survey be completed prior to Project construction. Subsequently, DAS determined the proposed Project would not require an EIE. A post-scoping notice will be published within the established CEPoA timeframe.

While the Council has discretion to consider CEPoA, it is not required to do so as one of the functions of the Council under the Public Utility Environmental Standards Act is to protect the environment to the extent possible while satisfying the public need for adequate electrical power.”<sup>4</sup>

### **Municipal Consultation**

Petitioners submitted site plans to the Town in February 2022 and attended a meeting with Town officials on February 15, 2022 to discuss the Project. The Town expressed concern regarding potential visibility of the Project from the residences located south of the site along Curve Hill Road and Contour Drive, and recommended implementation of additional visual mitigation measures. Specifically, the Town requested a row of arborvitae along the southern edge of the field be planted on an earthen berm. Petitioners are currently consulting with DOC as to the feasibility of a berm in relation to security concerns on the host parcel.

On May 23, 2022, the Council sent correspondence to the Town stating that the Council has received the Petition and invited the Town to contact the Council with any questions or comments by June 19, 2022. No comments were received.

### **State Agency Comments**

On May 23, 2022, pursuant to RCSA §16-50j-40, the Council sent correspondence requesting comments on the proposed project from the following state agencies by June 19, 2022: DEEP; Department of Agriculture (DOAg); Department of Public Health (DPH); CEQ; Public Utilities Regulatory Authority (PURA); OPM; Department of Economic and Community Development (DECD); Department of Emergency Services and Public Protection (DESPP); Department of Consumer Protection (DCP); Department of Labor (DOL); DAS; Department of Transportation (DOT); the Connecticut Airport Authority (CAA); and SHPO.

In response to the Council's solicitation, CEQ submitted comments on June 6, 2022<sup>5</sup> related to the DEEP NDDDB determination, visibility, and the potential impact to prime farmland soils.

No other state agencies provided written comments on the Project.

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<sup>3</sup> Conn. Gen. Stat. §22a-1c (2021).

<sup>4</sup> *City of Torrington v. Conn. Siting Council*, 1991 Conn. Super. LEXIS 2084 at \*35-36 (Conn. Super. Sept. 10, 1991); *City of New Haven v. Conn. Siting Council*, 2002 Conn. Super. LEXIS 2753 at \*43-56 (Conn. Super. Aug. 21, 2002).

<sup>5</sup> [CEQ comments 06/06/22](#)

While the Council is obligated to consult with and solicit comments from state agencies by statute, the Council is not required to abide by the comments from state agencies.<sup>6</sup>

### **Public Act 17-218**

Effective July 1, 2017, Public Act (PA) 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 DEEP in any solicitation issued prior to July 1, 2017, pursuant to section 16a-3f, 16a-3g or 16a-3j, the 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.”

The proposed facility has a generating capacity of 1.95 MW; therefore, it is exempt from the provisions of PA 17-218.

### **Public Benefit**

The Project would be a customer-side distributed energy resource facility as defined in CGS § 16-1(a)(49). CGS § 16a-35k establishes the State’s energy policy, including the goal to “develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent.” The 2018 Comprehensive Energy Strategy (2018 CES) highlights eight key strategies to guide administrative and legislative action over the next several years. Specifically, Strategy No. 3 is “Grow and sustain renewable and zero-carbon generation in the state and region.” Furthermore, on September 3, 2019, Governor Lamont issued Executive Order No. 3, which calls for the complete de-carbonization of the electric sector by 2040. The proposed facility will contribute to fulfilling the State’s Renewable Portfolio Standard and Global Warming Solutions Act as a zero emission Class I renewable energy source.

Pursuant to Governor Lamont’s Executive Order No. 21-03, which directs all electricity purchased and generated by the Executive Branch to be 100% zero carbon by 2030, primarily through new projects sited on state buildings or property, Petitioners entered into a 25-year Power Purchase Agreement with DAS to produce solar-generated electricity solely for use at MWCI.

### **Proposed Site**

Pursuant to a lease agreement with DAS, Petitioners propose to construct the solar facility on an approximate 7.2-acre site<sup>7</sup> within a 244.6-acre parcel located at 900 Highland Avenue in Cheshire. The host parcel, zoned Industrial I-2, is improved with several buildings comprising MWCI.

The Project would be located in a hayfield southwest of the buildings on the parcel. The site slopes downgradient to the east from an elevation of 235 feet above mean sea level (amsl) to 200 feet amsl.

Land use surrounding the site beyond the correctional institution parcel consists of undeveloped woodland, agricultural, and residential.

The nearest residential property line from the solar facility perimeter fence is approximately 185 feet to the south at 172 Curve Hill Road. The nearest residences are located over 460 feet southeast of the site along Curve Hill Road.

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<sup>6</sup> *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007).

<sup>7</sup> RCSA §16-50j-2a(29), “Site” means a contiguous parcel of property with specified boundaries, including, but not limited to, the leased area, right-of-way, access and easements on which a facility and associated equipment is located, shall be located or is proposed to be located.

Petitioners selected the site due to state ownership, availability, limited environmental impact, suitability, and proximity to an electrical interconnection.

The term of the lease agreement is 25 years. At the end of the lease, Petitioners must decommission the Project and restore the site to its pre-existing condition.

### **Proposed Project**

The proposed facility consists of 5,160 solar panels rated at 465/480 Watts. The panels would be installed on a fixed racking system facing south at a 25-degree angle. The panels would be approximately 10 feet above grade at the highest point and 2 feet above grade at the lowest point. The aisles between the panel rows would be approximately 16.6 feet wide.

Panel row wiring would extend along the racking system to reduce potential damage from weather events, maintenance activities, or animals. From collection points at the end of the panel rows, underground wiring would extend to the inverters and a switchgear/transformer pad on the east side of the site. From the transformer, an underground line would extend for approximately 2,750 feet along existing driveways and through field/lawn areas on the property to existing switchgear located on the south side of Jarvis Street. A 25-kV metal enclosed switch and metering compartment would be installed adjacent to the existing switchgear.

The capacity factor for the Project is approximately 19.7 percent. The power output would decline over time with an anticipated annual power output loss of approximately 0.5 percent.

A seven-foot tall chain link fence with an 8-inch gap between the mesh and the ground to allow for small wildlife movement would enclose the facility. Access to the solar facility would be directly from an existing driveway on the host parcel through a fenced access gate.

Approximately 949 cubic yards of excavation is required at the site for installation of a stormwater control basin. The site development area consists of 5 to 10 percent grades. The solar racking system would be installed on existing grades.

Construction would occur over a 4 to 6 month period. Typical construction hours and workdays of the week are as follows: Monday – Saturday, 7:00 AM to 7:00 PM.

The estimated cost of the project is approximately \$4.2 million.

### **Public Safety**

The proposed Project would comply with the National Electrical Code (NEC), National Electrical Safety Code and National Fire Protection Association codes and standards, as applicable. Petitioners designed the system in accordance with the CT State Fire Prevention Code, Section 11.12.3 - Ground Mounted Photovoltaic System Installations by including a 15-foot wide perimeter access aisle around each array and seeding the solar array areas with low growing vegetation.

According to correspondence from the Federal Aviation Administration (FAA) dated March 23, 2022, the Project would not be a Hazard to Air Navigation or require a FAA glare analysis.

The facility would be remotely monitored through a data acquisition system.

Petitioners would provide local emergency responders with facility operation and safety training.

The seven-foot high chain link perimeter fence complies with the NEC fencing requirements.<sup>8</sup>

The proposed facility would be in compliance with DEEP Noise Control Standards. Noise modeling indicates noise from the Project would be less than 35 dBA at the abutting residential properties to the south. The inverters do not operate at night. Construction noise is exempt from DEEP Noise Control Standards.

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

## **Environmental Effects and Mitigation Measures**

### *Historic and Recreational Resources*

SHPO submitted correspondence to Petitioners on June 27, 2022, indicating that the proposed project would not affect historic properties or archeological resources. No further action was recommended.

A town-owned park is located to the northeast of the site, across the correctional institution parcel and Highland Avenue (State Route 10). Existing vegetative buffers and buildings on the host parcel would screen views of the Project from the park.

The Farmington Canal Heritage Trail is approximately 1,250 feet west of the site. The Project would not be visible from the trail due to intervening vegetation.

### *Visibility*

Existing vegetation and buildings on the host property would screen views of the proposed facility from abutting residences, the town park and a school located across from the correctional institution parcel on Highland Avenue. A band of vegetation occurs along the south property line that would screen the facility from abutting residential properties on Curve Hill Road and Contour Drive. Petitioners propose to use black-coated perimeter fencing and plant a row of deer-resistant evergreens (Green Giant Arborvitae) along the south end of the hayfield to provide further screening from these properties.

No state designated scenic roads or scenic areas are located adjacent to the site.

### *Agriculture*

The host parcel contains prime farmland soils according to mapping maintained by the United States Department of Agriculture (USDA) Natural Resource Conservation Service. Under PA 17-218, “prime farmland” means land that meets the criteria for prime farmland as described in 7 Code of Federal Regulations (C.F.R.) 657, as amended from time to time. 7 C.F.R. 657 defines prime farmland in relevant part as “land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses.”

The site is located on a hayfield and would be constructed on approximately 7.2 acres of prime farmland soil. Petitioners would minimize grading to the extent feasible to avoid disturbance to the prime farmland soil.

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<sup>8</sup> Section 691.4(2) of the National Electrical Code (NEC), 2020 Edition notes that, “Access to PV electric supply stations shall be restricted by fencing or other adequate means in accordance with 110.31...” Section 110.31 notes that for over 1,000 Volts, “...a wall, screen, or fence shall be used...A fence shall not be less than 7 feet in height or a combination of 6 feet or more of fence fabric and a 1 foot or more...utilizing barbed wire or equivalent.”

Agricultural use of the site could resume once the Project is decommissioned.

#### *Wetlands and Watercourses*

Petitioners performed a wetland and watercourse survey in the Project area in October 2021. No wetlands were identified within the vicinity of the proposed site development area.<sup>9</sup> Soils within the site area are well drained.

#### *Wildlife*

On August 10, 2022, DEEP issued a NDDB Determination letter that identified the eastern box turtle as occurring within or near the site area.<sup>10</sup> DEEP recommended that site construction protection measures for the turtle be implemented to reduce impacts to the turtles. These measures include, but are not limited to, isolation measures, turtle “sweeps”, contractor education, and reporting. Petitioners included turtle protection measures on the Project Site Plans and would revise the measures as necessary.

Petitioners would use a pollinator seed mix to revegetate disturbed areas within the solar array and in the stormwater basin. Petitioners would prefer to use a seed mix for areas alongside utility trenching that will blend in with the existing area.

#### *Forest*

Petitioners would clear an approximate 0.4-acre windrow of trees between two fields to develop the Project. No core or edge forest would be impacted by development of the solar facility. Several existing landscape trees would be removed near the existing driveway adjacent to the east side of the site for the electrical interconnection.

#### *Air Quality*

The Project would not produce air or water emissions as a result of operation. The Project would not produce emissions of regulated air pollutants or greenhouse gases during operation.

#### *Water Quality*

The site is not located within a DEEP-designated Aquifer Protection Area (APA). The nearest APA is located approximately 4,200 feet northwest of the Project site. The nearest Public Drinking Supply Watershed is located approximately 1.4 miles to the northwest.

A Fuel Spill Prevention Plan has been developed for the Project to protect subsurface water resources.

The facility would not use or discharge water during site operations.

#### Stormwater

Pursuant to CGS Section 22a-430b, DEEP retains final jurisdiction over stormwater management and administers permit programs to regulate stormwater discharges. DEEP regulations and guidelines set forth standards for erosion and sedimentation control, stormwater pollution control and best engineering practices. The DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from

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<sup>9</sup> A portion of the host parcel outside of the development area of the solar facility contains wetlands.

<sup>10</sup> The initial DEEP NDDB determination letter expired after July 22, 2022.

Construction Activities (General Permit) requires 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 General Permit is required prior to commencement of construction activities, as defined in the General Permit. The General Permit and associated SWPCP incorporates project designs consistent with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* and the *2004 Connecticut Stormwater Quality Manual*.

A construction sequence is noted on the Project Site Plans that includes the establishment of erosion control measures, site clearing and construction and installation of the stormwater management system. Once the disturbed areas are stabilized, installation of site infrastructure would commence.

Petitioners met with the DEEP Stormwater Division on February 1, 2022 to discuss the Project. Petitioners performed a stormwater analysis that concluded a single stormwater basin on the west side of the site would be necessary to retain post-construction stormwater flows. Curtain drains would be installed along the drip line of the solar panel rows to prevent concentrated flows down the hillside. DEEP reviewed the proposed stormwater management system and expressed support for the curtain drain design.

### **Operation and Maintenance**

A post-construction Operations and Maintenance (O&M) Plan has been developed that includes provisions for periodic inspections of physical site features and structural and electrical components.

An evaluation of the facility and performance of preventative maintenance measures would be conducted in accordance with manufacturer's specifications. The evaluation would include the electrical system/components, physical infrastructure, and site vegetation. Replacement modules would not be stored on-site.

Due to frequent rain events, module cleaning is not anticipated. Mowing and herbicidal applications would be conducted as required and/or permitted.

### **Decommissioning**

The Project has a minimal operational life of 25 years. At the end of the Project's useful life, it would be decommissioned and the site restored to its original condition. Project decommissioning would include removal and disposal or recycling of all above-surface and subsurface Project components.

All recyclable materials would be transported to appropriate recycling facilities. It is anticipated that the glass, aluminum frame, copper wire, and plastic junction box are all recyclable components of solar modules. One available PV recycling center, Cascade Eco Minerals, is located in Natrona Heights, Pennsylvania.

Any non-recyclable materials will be properly disposed of at a nearby landfill. The transformer and interconnection equipment pads would be removed. Underground infrastructure would be removed to a depth of three feet.

Disturbed areas would be backfilled with native soil, stabilized and seeded for re-use as a hayfield.

The selected solar panels for the Project meet current Toxicity Characteristic Leaching Procedure (TCLP) criteria for characterization as nonhazardous waste in the event the solar panels are not recycled at the end of the Project's life.

### **Conclusion**

The Project is a customer side distributed energy resource with a capacity of not more than sixty-five megawatts, meets DEEP air and water quality standards, and would not have a substantial adverse environmental effect. The proposed project will not produce air emissions, will not utilize water to produce electricity, was designed to minimize environmental impacts, and furthers the State's energy policy by developing and utilizing renewable energy resources and distributed energy resources. Furthermore, the Project was developed in support of Governor Lamont's Executive Order No. 21-03, which directs electricity purchased and generated by the Executive Branch to be from 100% zero carbon sources by 2030.

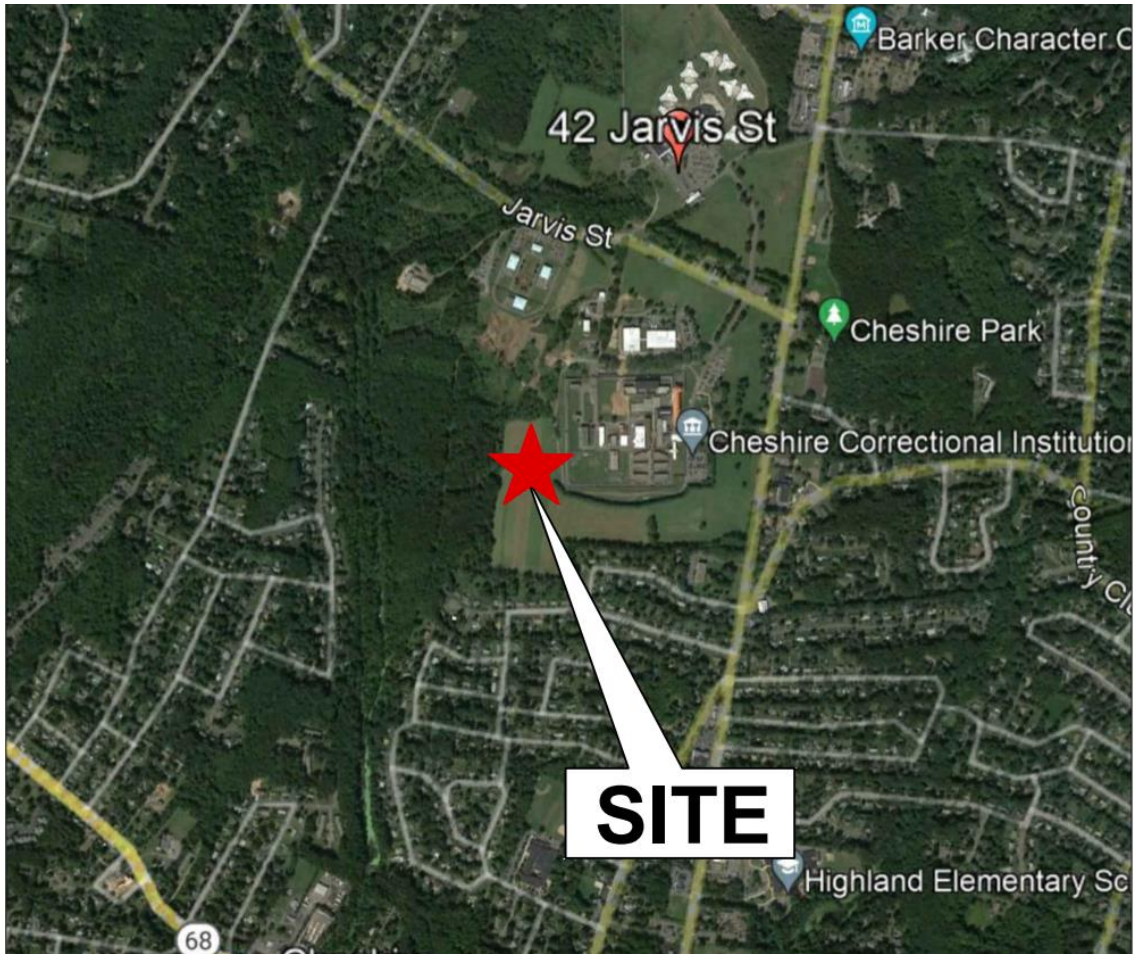
### **Recommendations**

If approved, staff recommends the following conditions:

1. Approval of any project changes be delegated to Council staff;
2. Submit a copy of the DEEP Stormwater Permit prior to the commencement of construction;
3. Implement the best management protocols for the eastern box turtle listed in the DEEP Natural Diversity Database Determination letter dated August 10, 2022;
4. 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;
5. Provide training to emergency responders;
6. Provide contact information for the contractor and spill response contractor assigned to the Project; and
7. Utilize a pollinator seed mix, where feasible.



### Site Location



## Proposed Conditions



