

STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

December 3, 2020

Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103-3597

RE: **PETITION NO. 1417** – Watertown Solar One, LLC and VCP, LLC d/b/a Verogy petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 1.975 megawatt AC solar photovoltaic generating facility located at 669 Platt Road, Watertown, Connecticut, and associated electrical connection.

Dear Attorney Baldwin:

At a public meeting held on December 3, 2020, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal meets air and water quality standards of the Department of Energy and Environmental Protection and would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes § 16-50k, would not require a Certificate of Environmental Compatibility and Public Need, with the following conditions:

- 1. The Petitioner shall prepare a Development and Management Plan (D&M) for this facility in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies. The D&M Plan shall be submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) A final site plan including, but not limited to, final solar panel layout, access roads, electrical design plans and interconnection route, fence design compliant with the National Electric Code, final site seeding, landscape planting/berm details and equipment pads:
 - b) final structural design (for the racking system) stamped by a Professional Engineer duly licensed in the State of Connecticut;
 - c) Copy of DEEP Stormwater Permit;
 - d) Construction site plans that comply with DEEP-approved Stormwater Pollution Control Plan that include, but are not limited to, site clearing, grading, site phasing, construction laydown areas, erosion and sedimentation controls, site stabilization seeding/growing season details, and details regarding construction-related environmental mitigation measures:
 - e) Post-construction site maintenance and vegetation management plan;
 - f) Contact information for the construction contractor; and
 - g) Post-construction site maintenance and vegetation management plan:
 - h) Consultation with the DEEP Dam Safety program regarding permitting requirements, if any, for the proposed stormwater basins prior to site construction.

- 2. Upon completion of the land clearing and grading efforts, all distributed areas shall be seeded and stabilized through a growing season (i.e. Spring or Fall) before commencement of construction of the solar arrays and related equipment;
- 3. Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the Towns of Watertown, Bethlehem and Woodbury;
- 4. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- 5. The facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v;
- 6. This Declaratory Ruling may be transferred, provided the facility owner/operator/transferor is current with payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v and the transferee provides written confirmation that the transferee agrees to comply with the terms, limitations and conditions contained in the Declaratory Ruling, including timely payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v; and
- 7. If the facility owner/operator is a wholly owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition dated July 6, 2020 and additional information received on August 28, 2020, October 22, 2020, October 31, 2020 and November 25, 2020.

Enclosed for your information is a copy of the staff report on this project.

Sincerely,

s/Melanie A. Bachman

Melanie A. Bachman Executive Director

MAB/MP/lm

Enclosure: Staff Report dated December 3, 2020

c: The Honorable Thomas L. Winn, Chairman, Town of Watertown
Mark Massoud, Land Use Administrator, Town of Watertown
The Honorable Leonard J. Assard, First Selectman, Town of Bethlehem
The Honorable Barbara Perkinson, First Selectman, Town of Woodbury
Maryellen Edwards, Town Planner, Town of Woodbury
William Herschel, VCP, LLC d/b/a Verogy
Brian Fitzgerald, VCP, LLC d/b/a Verogy
Renee Hodge



STATE OF CONNECTICUT

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov Web Site: portal.ct.gov/csc

Petition No. 1417
Watertown Solar One, LLC and VCP, LLC d/b/a Verogy
669 Platt Road, Watertown
Staff Report
December 3, 2020

Introduction

On July 6, 2020, Watertown Solar One, LLC and VCP, LLC d/b/a Verogy (Petitioner) submitted a petition to the Connecticut Siting Council (Council) for a declaratory ruling pursuant to Connecticut General Statutes §4-176 and §16-50k for the construction, operation and maintenance of a 1.975-megawatt (MW) alternating current (AC) solar photovoltaic generating facility located at 669 Platt Road, Watertown, Connecticut.

Pursuant to Regulations of Connecticut State Agencies (RCSA) §16-50j-40, on or about June 30, 2020, the Petitioner notified Town of Watertown officials, Town of Woodbury officials, Town of Bethlehem officials¹, state officials and agencies; the property owner, and abutting property owners of the proposed project.

Pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act, an administrative agency is required to take action on a petition within 60 days of receipt. September 4, 2020 was the deadline for this petition under CGS §4-176(e). In response to the Coronavirus pandemic, on June 29, 2020, Governor Lamont issued Executive Order No. 7DDD that provides for a 90-day extension of statutory and regulatory deadlines for administrative agencies thus extending the deadline to December 3, 2020.

The Council issued its first set of interrogatories to the Petitioner on August 20, 2020. On August 28, 2020, the Petitioner submitted responses to the Council's first set of interrogatories of which one interrogatory included photographic documentation of site-specific features intended to serve as a "virtual" field review of the project.

On October 2, 2020, Renee Hodge requested party status, and on October 23, 2020, the Council granted party status to Renee Hodge. On October 15, 2020, the Council issued its second set of interrogatories to the Petitioner. The Petitioner submitted responses to the Council's second set of interrogatories on October 22, 2020.

On October 19, 2020, the Petitioner notified an additional abutting property owner at 217 Hinman Road of the proposed project.² On October 23, 2020, the Council developed a schedule for the exchange of interrogatories among participants. No further interrogatories were issued or exchanged. On October 31, 2020, the abutting property owners at 217 Hinman Road sent e-mail correspondence to the Petitioner that they have no objections or concerns with the proposal.

On November 30, 2020, Council staff member, Michael Perrone, visited the site.

¹ The Towns of Woodbury and Bethlehem are both located within 2,500 feet of the proposed facility.

² Petitioners' further review of the Watertown GIS indicated an omission that 217 Hinman Road (Schienda parcel) was subdivided from 279 Hinman Road (Hodge parcel). Schnienda directly abuts the proposed site rather than Hodge.

Municipal Consultation

In November 2019, the Petitioner informed municipal officials in Watertown, Woodbury and Bethlehem of its plans to develop the proposed project. Over the next seven months, the Petitioner remained in contact with municipal officials to keep them apprised of the project's progress and the permitting and development schedules.

In June 2020, the Petitioner engaged in public outreach efforts. Such public outreach included, but was not limited to, launching a project website; and distributing a project fact sheet with frequently asked questions and contact information for the petitioner.

On July 8, 2020, the Council sent correspondence to the Town of Watertown stating that the Council has received the Petition and invited the Town of Watertown to contact the Council with any questions or comments by August 5, 2020. No comments were received from the Town of Watertown.

On July 10, 2020, the Council sent correspondence to the Towns of Woodbury and Bethlehem stating that the Council has received the Petition and invited the Towns of Woodbury and Bethlehem to contact the Council with any questions or comments by August 5, 2020. By letter dated July 13, 2020, First Selectman Leonard Assard of the Town of Bethlehem indicated "no obligation to the issuance of a declaratory ruling" for the proposed project. No comments were received from the Town of Woodbury.

Since the filing of the Petition, the Petitioner has been in contact with four abutting property owners: Michael Stankus and Mary Spillane of 664 Platt Road; Alicia and Peter Maddox of 100 Hinman Road; Mark and Marcia Worenko of 636 Platt Road; and Renee Hodge of 279 Hinman Road, a Party to the Petition.

On July 7, 2020, the Petitioner responded to questions and comments from party Renee Hodge. On July 13, 2020, the Petitioner sent Ms. Hodge an electronic copy of Petition 1417 and a Site Vicinity Map (SVM) to depict the project location and distance from her home. The SVM indicates that the proposed project is located approximately 2,750 feet northwest of the proposed solar facility fence line. On July 30, 2020, Ms. Hodge filed comments with the Council noting concerns regarding visibility, potential future increases in project size/capacity, health/safety related to magnetic fields, noise, wildlife impacts, other environmental impacts, watercourse flows, traffic, transformer insulation oil, arc flash safety and reliability of the solar photovoltaic facility.

On July 15, 2020, the Petitioner discussed the scope of land preparation work for the project with Peter Maddox who mentioned that he works for a contractor.

On July 23, 2020, the Petitioner responded to questions from Marcia Worenko. Ms. Worenko expressed concerns related to recent activity undertaken by The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) within its transmission line right-of-way (ROW) that extends across Platt Road and through her parcel.

State Agency Comments

On July 8, 2020, the Council sent correspondence requesting comments on the proposed project from the following state agencies by August 5, 2020: Department of Energy and Environmental Protection (DEEP); Department of Agriculture (DOAg); Department of Public Health (DPH); Council on Environmental Quality (CEQ); Public Utilities Regulatory Authority (PURA); Office of Policy and Management (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); Department of Administrative Services (DAS); Department of Transportation (DOT); the Connecticut Airport Authority (CAA); and the State Historic Preservation Office (SHPO). No comments were received. 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.³

Public Act 17-218

Effective July 1, 2017, 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 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 land as core forest." The proposed facility has a generating capacity of 1.975 MW. Therefore, it is exempt from the provisions of Public Act 17-218.

Public Benefit

The project would be a 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 decarbonization 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.

Energy produced by the facility would be sold to Eversource at market rates specified in the applicable utility tariff for any self-generation facility. Alternatively, in the event that virtual net metering capacity becomes available, energy produced by the proposed project may be delivered to Eversource via the Virtual Net Metering (VNM) Rider or any successor rider thereto. Eversource's VNM program is accepting applications for the state, municipal⁴ and agricultural host funding program. Funding for the program is currently capped, and projects are being placed on a waitlist in the event that funding is increased or already allocated projects do not move forward. Notwithstanding, the proposed project is still viable via the market-based tariff if VNM is not available.

The Petitioner was awarded a contract with Eversource under the state's Low and Zero Emissions Renewable Energy Credit Programs (LREC/ZREC Program) to sell the renewable energy credits (RECs) from the facility. The LREC/ZREC Program was developed as part of Public Act 11-80, "An Act Concerning the Establishment of the [DEEP] and Planning for Connecticut's Energy Future." The LREC/ZREC Program is not among the competitive energy procurement programs that are exempt from Public Act 17-218. Any RECs that are produced by the facility in excess of the maximum quantity defined in the LREC contract may be sold on the spot market.

The Petitioner would also participate in the ISO-New England, Inc. Forward Capacity Auction #15 in 2021 for the 2024 to 2025 Capacity Commitment Period.

³ Corcoran v. Connecticut Siting Council, 284 Conn. 455 (2007)

⁴Pursuant to CGS §16-244u, the state's VNM program incentivizes the use of renewable energy by allowing municipalities and other end use customers to assign surplus energy production to other metered accounts.

Proposed Site

Pursuant to a lease agreement with the property owner, the Petitioner proposes to construct the solar facility on a site⁵ located within an approximately 154-acre parcel owned by Catholic Cemeteries Association of the Archdiocese of Hartford and located west of Platt Road and south of Hinman Road in Watertown. The subject property is located within the Residential R-70 Zone. Mt. Olivet Cemetery is located immediately north of the site and on the subject property. Surrounding land use beyond the cemetery and to the east, west and south is a mixture of farm and residential.

Considerations in Petitioner's site selection process include, but are not limited to, the following:

- a) parcel size, grade, and surrounding topography;
- b) availability of land for lease or purchase;
- c) proximity to the electrical infrastructure; and
- d) compatibility with surrounding land uses.

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.⁶

Proposed Project

The proposed solar facility consists of two solar arrays totaling 1.975 MW AC and separated by an access drive.

The solar facility would include a total of 7,176 solar photovoltaic modules consisting of 1,560 modules at 380 Watts direct current (DC) each and 5,616 modules at 390 Watts DC each. The modules would be installed on a fixed-tilt ground-mounted racking system and oriented to the south at a 30 degree angle. The modules would be installed with a minimum ground clearance of approximately 3 feet. The maximum height to the tops of the solar panels would be approximately 10 feet.

The racking system would be supported by posts driven into the ground to an embedment depth of about 8 to 10 feet. A geotechnical investigation found subsurface conditions to include subsoil, glacial till, and weathered rock requiring use of ground screws. Predrilling is anticipated to install the ground screws due to the relative density of site soils and the presence of cobbles and boulders. The results of the geotechnical study will be utilized by the selected racking manufacturer in their final design of the racking system.

The Petitioner would install sixteen inverters. The AC power output from the inverters would feed into a step-up transformer to raise the voltage to 13.8-kV to match existing electric distribution. The transformer would be located on a concrete pad in the northern portion of the facility.

The maximum efficiency of the proposed 380 Watt and 390 Watt solar panels would be approximately 19.5 percent and 20.2 percent, respectively. The annual power degradation (as the panels age) would be approximately 0.5 percent per year.

⁵ 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.

⁶ Corcoran v. Connecticut Siting Council, 284 Conn. 455 (2007); CGS §16-50p(g) (2019).

Fencing would consist of a six-foot tall⁷ chain-link fence with black vinyl coating and a four to six inch wildlife gap at the bottom.

The existing cemetery access road would be utilized and would not require upgrades. The Petitioner would construct approximately 475 linear feet of new access drive for the solar facility. The new access would connect the solar facility to the southwestern corner of the existing cemetery access drive.

The Petitioner successfully completed a utility-sponsored Scoping Meeting, Interconnection Application Request and an Application Review, Impact Study, and has executed a Standard Fast Track and Study Process Generator Interconnection Agreement. The electrical interconnection would run underground from Eversource's existing three-phase 13.8-kilovolt distribution on Platt Road in a southeasterly direction along the existing cemetery access drive to reach the proposed equipment pad located within the northern limits of the fenced solar facility.

Site topography generally grades down to the east and west from a central high point, with slopes of varying degrees. Ground elevations range from approximately 770 feet above mean sea level (AMSL) to 810 feet AMSL.

Total tree clearing area would be approximately 14.16 acres. Grading would be required to remove existing soil stockpiles, in areas where slopes exceed 30 percent, and in the areas where the stormwater management features are proposed. With the exception of these areas, the project has been designed to minimize alterations to existing slopes. A site construction phasing plan has been developed that includes two main construction phases. Phase 1 includes all work necessary to establish temporary sediment basins and other erosion control measures at the site. Phase 2 includes any remaining earthwork and grubbing followed by site infrastructure installation and site stabilization. While the proposed project is designed to generally balance the approximately 14,015 cubic yards of cut and fill, an additional portion of the proposed access drive (not included in that total) may result in an additional 100 cubic yards of net cut. The excess soils would be utilized for construction of the berm and otherwise spread out around the project area. Thus, it is not anticipated that any soils would be removed from the subject property.

If approved, construction of the project would commence in approximately the fourth quarter of 2020 with mobilization of equipment and minor land clearing and grading efforts. Site work and land preparation is expected to be completed in January 2021 with construction and installation of solar arrays and equipment to be completed in February 2021. Final site stabilization, testing, and commissioning is anticipated to be completed by March 2021. Work hours would typically be 7:00 a.m. to 7:00 p.m., Monday through Saturday.

Public Safety

The proposed project would comply with the National Electric Code, National Electric Safety Code and National Fire Protection Association Codes and Standards, as applicable. If one section of the solar array experiences an abnormal operation, that section (connected to a given inverter) can shut down while the remaining sections (on separate inverters) can remain active.

While inverter failures are one factor that can cause a generation outage or unavailability, other factors that can contribute to unavailability are utility distribution grid outages from storms and grounding due to

⁷ 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."

lightning strikes. The facility would be remotely monitored 24/7, and the operations and maintenance team would be notified if, for example, a fault is detected by an inverter; an outage occurs; or the system is otherwise unavailable. The Petitioner would diagnose and address the problem as soon as possible to restore the facility to operation.

Prior to operation, the Petitioner would meet with local first responders to provide them with information regarding response to emergencies at solar facilities, discuss industry best practices and provide a tour of the facility. The proposed access road has been designed to accommodate emergency service vehicles. Local emergency responder personnel would be provided access to the facility via a Knox Pad lock.

The Petitioner notes several precautionary measures that would be taken with respect to the potential for arc flashes. Conductors of different voltages would be separated and correctly labeled. The proposed inverter technology would de-energize the facility when an arc is detected. Another safety feature used to prevent arc flashes is the use of fused combiner boxes. The AC equipment would be designed such that none of the AC equipment would need maintenance while it is energized. All equipment would maintain appropriate arc flash safety labeling, and all operations and maintenance personnel would be trained regarding arc flashes and would wear applicable personal protective equipment.

The nearest federally-obligated airport to the proposed facility is Bradley International Airport in Windsor Locks, which is approximately 33 miles to the northeast of the proposed site. By letters dated April 23, 2020, the Federal Aviation Administration (FAA) issued a Determination of No Hazard to Air Navigation. A glare analysis is also not required. The solar modules are designed to absorb incoming solar radiation and minimize reflectivity.

Any noise associated with the construction of this project would be temporary in nature and exempt per DEEP Noise Control Regulations. The proposed project is expected to meet the DEEP noise standards at the property boundaries.

Projected noise levels at the Hodge property line would be approximately -0.3 dBA⁸ due to the distance, which is indecipherable to the human ear.

The existing power line magnetic field levels at the Hodge property would be unaffected by the operation of the proposed solar facility.

Environmental Effects and Mitigation Measures

Historic and Recreational Resources

Heritage Consultants (Heritage) prepared a Phase 1A Cultural Resources Assessment Survey dated March 2020 (Phase 1A Report). According to the Phase 1A Report, there are no previously identified archaeological sites or properties listed in the National Register of Historic Places (NRHP) or State Register of Historic Places within a 1-mile radius of the proposed project area. Heritage noted that approximately 3.4 acres in the eastern portion of the project area retain moderate/high sensitivity for archaeological deposits and recommended the Petitioner conduct a Phase 1B Survey.

Heritage prepared a Phase 1B Cultural Resources Reconnaissance Survey Report dated May 2020 (Phase 1B Report). Heritage noted that a total of 65 shovel tests were excavated within the project area. No cultural materials, cultural features, or soil anomalies were identified during the survey. Based on the survey results, Heritage determined that no impacts to cultural resources would be expected to result from the proposed construction, and therefore, no additional archaeological examination of the subject property is recommended.

⁸ 0 dBA is the threshold of human hearing. A negative dBA means less than the threshold of human hearing.

By letter dated June 1, 2020, SHPO concurs that no additional archaeological investigations are warranted and determined that no historic properties would be affected by the proposed project.

There are no publicly-accessible recreational resources located within a one-mile radius of the proposed site.

Visibility

Year-round visibility of the proposed facility would be confined to areas within the immediate vicinity of the facility, primarily from within the Mt. Olivet Cemetery. In order to minimize visual impacts of the project on locations within the cemetery, a 11-foot tall earthen berm with planted evergreens would be placed at the northern project boundary. A narrow break in the western portion of the berm would be necessary for the access road to reach the facility.

Year-round visibility of the facility is expected from portions of the open fields south of the site and from a small area along Platt Road near the cemetery entrance.

Generally, wooded areas to the east, west and south of the proposed facility would limit off-site visibility. Limited seasonal (i.e. leaf-off) views of the facility could extend beyond the site approximately 0.30-mile to the south, 0.38-mile to the north and between 0.08-mile and 0.12-mile to the east and west, respectively. Currently, the dominant visual features in the immediate area are electric transmission line structures located in the Eversource ROW north of the project area.

The Hodge Property is located approximately 2,750 feet northwest of the proposed fence line for the facility. Visibility from the Hodge Property would be obscured by nearly 0.5-mile of intervening woodlands.

In general, views of the proposed facility would be fairly diminished due to its low height and the presence of intervening vegetation.

Agriculture

The proposed project would impact approximately 12.1 acres of Prime Farmland Soils at the site. The Petitioner has proposed using minimally intrusive methods for construction of the facility such as use of pile-driven posts for the solar panel racks to limit compaction. Beyond the facility's fence lines, the installation of stormwater basins and swales would require the displacement of topsoil. The excavated material would be either used to cap the berm at the northern project boundary or be spread around the facility perimeter as top dressing for re-establishing vegetation in the area. No topsoil would leave the site.

The project area is primarily wooded and has not been in agricultural use.

Wetlands

The topography of the site slopes gently downwards from east to west. Wetland 1, located west of the project area, consists of a broad south to north flowing drainageway within an interior intermittent stream. Wetland 2, located northwest of the project area, is a small hillside groundwater slope wetland with seasonally saturated hydrology. Wetland 3, located northwest of the project area along the site's northern boundary, consists of a hillside groundwater slope wetland with seasonally saturated hydrology. Wetland 4, located along the eastern boundary of the site, consists of a forested hillside groundwater slope wetland with seasonally saturated hydrology. The distances from the project's Limits of Disturbance to the wetlands is indicated in the table below.

Wetlands Summary		
Project Proximity to Wetlands (from LOD*)	Distance (ft.)	Direction (of wetland from LOD*)
Project Proximity to Wetland 1	80	West
Project Proximity to Wetland 2	80	North
Project Proximity to Wetland 3	100	North
Project Proximity to Wetland 4	15**	South
Project Proximity to Vernal Pool	300	West

^{*}Limit of disturbance

Grading associated with the stormwater management basin in the northwest corner of the project area is within the 100-foot upland review area for Wetland 1 and 2. The basin's size is determined by the Petitioner's compliance with a required drop in Hydrologic Soil Group required by Appendix I of the DEEP stormwater permit. It is possible that strict adherence to a 100-foot upland review area would result in a loss of electrical generation capacity from the project. Lastly, the electrical interconnection route would pass through the 100-foot upland review area of Wetland 4 in order to follow the existing cemetery access drive.

To protect wetlands and watercourses during construction, the Petitioner has provided a Wetland Protection Plan (WPP). By implementing the WPP and utilizing erosion and sedimentation controls in accordance with the <u>2002 Connecticut Guidelines for Soil Erosion and Sediment Control</u>, potential adverse impacts to wetland resources would be mitigated.

Vernal pool surveys were conducted on the site on March 18, 2020; March 30, 2020; and April 7, 2020. One vernal pool was identified within the southern portion of Wetland 1. Indicator species and egg mass totals are identified in the table below.

Indicator Species	Egg Masses/Larvae	
Vernal Pool	(Wetland 1)	
Wood Frog	33 masses	
Spotted Salamander	9 masses	

The proposed project would be consistent with the 2015 U.S. Army Corps of Engineers Vernal Pool Best Management Practices (BMPs). The 100-foot vernal pool envelope (VPE) would not be impacted. The pre-construction percent developed area of the 100-foot to 750-foot Critical Terrestrial Habitat (CTH) does not exceed 25 percent. Post-construction, the percent developed area of the CTH would not exceed 25 percent. The Petitioner proposes a Habitat Enhancement Area within the CTH of the on-site vernal pool. A four to seven year mowing restriction would allow this area to revert to late old field habitat and create a soft ecotone to provide cover and more optimal habitat for obligate vernal pool breeding species. With the Habitat Enhancement Area and minimal increase in development within the CTH, the proposed project would not likely result in an adverse impact to the vernal pool.

Wildlife

There are no known state-listed species within 0.25-mile of the proposed site per the DEEP Natural Diversity Database.

^{**}Interconnection along existing access road.

One federally-listed Threatened-Species and state-listed Endangered-Species, the northern long-eared bat, is known to occur in the vicinity of the proposed site. The proposed facility is not located within 150 feet of a known NLEB maternity roost tree or within 0.25 mile of a known NLEB hibernaculum. On February 10, 2020, the Petitioner consulted with the U.S. Fish & Wildlife Service (USFWS). USFWS did not respond within 30 days, and thus, the Petitioner's action is in compliance with the Endangered Species Act Section 7(a)(2) with respect to NLEB.

Forest

Under PA 17-218, "core forest" means unfragmented forest land that is three hundred feet or greater from the boundary between forest land and nonforest land, as determined by the Commissioner of DEEP. UCONN's Center for Land Use Education and Research (CLEAR) defines "core forest" as forested areas that are essentially surrounded by more forested areas and fall into three classes – small core forest, medium core forest and large core forest. Small core forest is comprised of core forest patches that are less than 250 acres. Medium core forest is comprised of core forest patches that are between 250-500 acres. Large core forest is comprised of core forest patches that are greater than 500 acres.

UCONN CLEAR utilizes the concept of "edge width" to capture the influence of a non-forest feature as it extends into the forest. Research found that the "edge influence" of a clearing will typically extend about 300 feet into the forest.

The proposed project area does not contain "core forest." However, development of the project would result in the clearing of approximately 11.85 acres of edge forest.

Air Quality

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

The Petitioner estimates that there would be an 83 percent reduction in greenhouse gas emissions from Project operation over a 20-year period when compared to the operation of a natural gas fueled electric generating facility with equivalent megawatt-hour (MWh) production.

The proposed project would generate about 67,955 MWh of electrical energy over approximately 20 years. Taking into the account the carbon dioxide emissions that would result from an equivalent-sized natural gas-fueled generating facility (in lieu of the proposed facility), the proposed solar facility would achieve a net improvement (i.e. reduction) with respect to greenhouse gas emissions.

Water Quality

The site is not located within a Federal Emergency Management Agency designated 100-year or 500-year flood zone. The site parcel is also not located within a DEEP-designated Aquifer Protection Area.

There are wells associated with the Mt. Olivet Cemetery on the larger parcel. Vibrations from the installation of the racking system are not expected to cause sediment release, and no disruption to well water flow or quality is anticipated. Thus, no groundwater impacts are expected.

The step-up transformer would utilize Envirotemp FR3 as its insulating fluid. It's biodegradable oil that is derived from edible seed oils and using food grade additives. The transformer itself would provide primary containment. Due to the readily biodegradable nature of the Envirotemp FR3 fluid and it being non-toxic and non-hazardous to soils and water, no secondary containment measures are proposed.

A Petroleum Materials Storage and Spill Prevention plan is included on the Project site plans and within a Site Resource Protection Plan.

Stormwater

Pursuant to CGS Section 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) requires implementation of a Stormwater Pollution Control Plan 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.

The Petitioner met with the DEEP Stormwater team in January 2020 and submitted its application for a stormwater permit in July 2020. On November 25, 2020, the Petitioner indicated that DEEP has recently approved the stormwater permit for this project.

Decommissioning Plan

A Decommissioning Plan was included in the Petition and has provisions for project removal after an operational life of approximately 30 years. Following the removal of project related equipment, per the lease agreement with the property owner, the site would be restored to substantially the same condition as prior to the commencement of the lease, excluding normal wear and tear. As part of the restoration, a seed mix would be applied as necessary to encourage vegetative coverage.

Conclusion

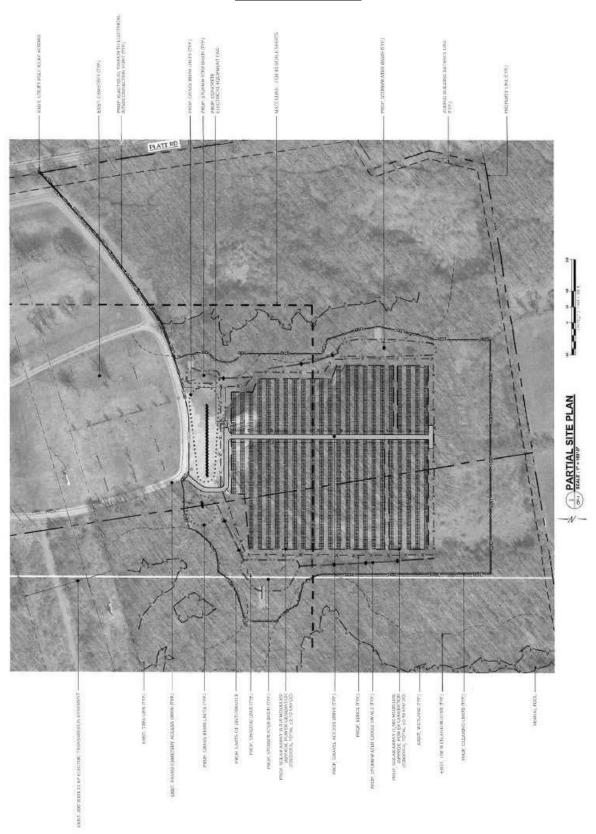
The project is a grid-side distributed resource with a capacity of not more than sixty-five megawatts, meets air and water quality standards of the DEEP, and would not have a substantial adverse environmental effect. The proposed project will not produce air emissions, will not utilize water to produce 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 selected under the state's LREC/ZREC Program and may further the state's VNM program.

Recommendations

If approved, staff recommends the following conditions:

- 1. Approval of any project changes be delegated to Council staff;
- 2. Submit a copy of a DEEP Stormwater Permit prior to commencement of construction;
- 3. Consult with the DEEP Dam Safety program regarding permitting requirements, if any, for the proposed stormwater basins prior to site construction;.
- 4. Submit the final fence design in compliance with the National Electrical Code prior to the commencement of construction;
- 5. Submit the final electrical design plans and interconnection route on the subject property prior to the commencement of construction; and
- 6. 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.

Proposed site layout



Aerial Site Plan



<u>Distance from Hodge Property to Proposed Site – Site Vicinity Map (SVM)</u>

