



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 CERTIFIED MAIL
VIA ELECTRONIC MAIL**

June 21, 2021

Thomas Melone, Esq.
Allco Renewable Energy Limited
157 Church Street, 15th floor
New Haven, CT 06510
Thomas.Melone@AllcoUS.com

RE: **PETITION NO. 1395A** – Windham Solar LLC amended petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of one 1.0-megawatt (MW) and one 0.99 MW solar photovoltaic electric generating facilities located at 31 Benz Street, Ansonia, Connecticut. **Decision on Reconsideration of March 12, 2021 Final Decision.**

Dear Attorney Melone:

At a public meeting held on June 17, 2021, the Connecticut Siting Council (Council) reconsidered its March 12, 2021 Final Decision and ruled that the above-referenced proposal meets air and water quality standards of the Department of Energy and Environmental Protection (DEEP) 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 recommendation that the Petitioner revise the decommissioning memorandum to account for site grading and consult with The United Illuminating Company to reduce the visual impact of the interconnection, and 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 provided to the service list and 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 facility layout, access roads, electrical interconnection including riser pole locations, fence design, equipment pads, and stormwater management control structures;
 - b) Details of construction phasing that includes, at a minimum, one growing season upon completion of the stormwater basins, swales, perimeter erosion and sedimentation controls, and solar field grading, prior to the commencement of solar array construction. One growing season is defined as April 1 through June 15 or August 15 through October 15;
 - c) Submit a box turtle protection program;
 - d) 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;
 - e) Final plans for hosting sheep grazing at the site, if applicable, including, but not limited to, provisions for emergency evacuation;
 - f) Installation of a black vinyl-coated solar field perimeter fence along Benz Street with a six inch gap at the bottom for wildlife movement if WS opts not to host sheep grazing at the site under (f);

- g) Construction hours shall occur Monday through Saturday with any Sunday work to be requested, as necessary;
 - h) Submit an updated DEEP NDDDB determination letter prior to commencement of construction;
 - i) Consult with the DEEP Dam Safety Division regarding permitting requirements, if any, for the proposed stormwater basins prior to site construction;
 - j) Solar module specifications that indicate the selected solar module will not contain PFAS and will not be characterized as hazardous waste through applicable TCLP testing at the time of this decision; and
 - k) Identification of the location for the on-site disposal of excess cut material from site grading activities. If a rock processor is to be used on-site, submit details regarding the location of the processor and associated erosion/sedimentation controls and sediment traps, and details of water use to control dust emissions.
2. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void, and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;
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 City of Ansonia;
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. The facility owner/operator shall file an annual report on a forecast of loads and resources pursuant to Conn. Gen. Stat. §16-50r.
7. 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

8. 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 revised petition dated May 27, 2021 and additional information including the Department of Energy and Environmental Protection General Permit registration and approved Stormwater Pollution Control Plan dated June 16, 2021.

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/RDM/lm

Enclosure: Staff Report dated June 17, 2021

c: Service List, dated April 23, 2021

This final decision has been electronically issued pursuant to Governor Lamont's March 12, 2020 Executive Order No. 7, "Protection of Public Health and Safety During COVID-19 Pandemic and Response" as subsequently extended.



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Petition No. 1395A
Windham Solar LLC, 31 Benz Street, Ansonia
Request for Reconsideration

Staff Report
June 17, 2021

Introduction

Petition 1395

On February 26, 2020, Windham Solar LLC (WS or Petitioner) submitted a petition to the Connecticut Siting Council (Council) for a declaratory ruling pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k for the construction, operation and maintenance of three 1.0-megawatt (MW) alternating current (AC) solar photovoltaic generating facilities located at 31 Benz Street, Ansonia, Connecticut (Petition 1395).

On April 17, 2020, the Council rejected Petition 1395 on the basis that it was incomplete, and not in compliance with CGS §16-50k(a) and RCSA § 16-50j-39(a) as it did not contain written correspondence from the Department of Agriculture (DOAg) that the proposed facility will not materially affect the status of prime farmland and/or written correspondence from the Department of Energy and Environmental Protection (DEEP) that the proposed facility will not materially affect the status of core forest.

Petition 1395A

On June 23, 2020, pursuant to CGS §4-176 and §16-50k, WS submitted an amended petition for a declaratory ruling for the construction, maintenance and operation of one 1.0 MW and one 0.99 MW solar photovoltaic electric generating facilities at the proposed 31 Benz Street site in Ansonia, reducing the project output by approximately 1.1 MW from what was initially proposed in Petition 1395.

On June 25, 2020, the Council sent correspondence to WS noting a deficiency in the completeness of Petition 1395A. Specifically, notice requirements set forth in RCSA §16-50j-40 were not met. WS submitted correspondence to the Council on June 30, 2020 evidencing compliance with the notice requirements. On July 2, 2020, the Council acknowledged WS' compliance with the notice requirements and rendered Petition 1395A complete.

On November 5, 2020, the City of Ansonia (City) requested party status which the Council granted on November 20, 2020. Also on November 20, 2020, the Council developed a schedule for the exchange of interrogatories among parties and intervenors listed on the Petition 1395A service list. No interrogatories were issued or exchanged among the parties and intervenors on the service list prior to the December 3, 2020 deadline.

On February 22, 2021, the City submitted a request for permission from the Council to issue interrogatories to the Petitioner. On the same date, the Council forwarded the City's interrogatories to the Petitioner and asked

for responses as soon as practicable. The Petitioner submitted responses to the City's interrogatories on March 1, 2021.

On March 12, 2021, the Council denied the petition for a declaratory ruling with prejudice,¹ on the basis that the proposed project would have a substantial adverse effect on water quality, including, but not limited to, the following:

- a) Insufficient wetland buffers composed of undisturbed vegetation to maintain water quality of on-site wetlands, as recommended in the *2004 Connecticut Stormwater Quality Manual*; and
- b) Insufficient information as to how the removal and processing of on-site ledge for use as fill material will affect on-site water hydrology, topographic settling and as a substrate to support vegetation.

Petition for Reconsideration

On March 26, 2021, pursuant to the provisions of CGS §4-181a(a), WS filed a Motion to Vacate, or in the Alternative, Petition for Reconsideration (Petition) of the Council's March 12, 2021 final decision (Final Decision). The City objected to the Petition.

On April 22, 2021, the Council voted to grant WS's Petition and develop a schedule for the exchange of additional interrogatories, *specifically limited to maintenance of on-site water quality as it relates to implementation of wetland buffers and on-site processing of fill material*, and a decision to modify, affirm or reverse the Final Decision be rendered *within 90 days*, consistent with the provisions of CGS §4-181a(a). The deadline for the Council's decision on reconsideration is July 21, 2021.

On April 23, 2021, the Council developed a schedule for the exchange of additional interrogatories, specifically limited to maintenance of on-site water quality as it relates to implementation of wetland buffers and on-site processing of fill material. The deadline for the exchange of additional interrogatories was May 6, 2021 and the deadline for the responses to additional interrogatories was May 27, 2021.

On May 4, 2021, the Council issued interrogatories to WS. WS responded to the Council's interrogatories on May 27, 2021. WS also submitted revised site plans to address water quality concerns.

On May 6, 2021, the City requested a public hearing on the Council's April 22, 2021 decision to reconsider its March 12, 2021 Final Decision; however, the Council did not order a public hearing in its April 22, 2021 decision to grant WS' Petition, and the City's request was rendered moot on May 10, 2021. Also on May 10, 2021, subject to any objection from WS, the Council granted the City one additional week to submit written interrogatories to WS specifically limited to maintenance of on-site water quality as it relates to implementation of wetland buffers and on-site processing of fill material in this matter consistent with the Council's April 22, 2021 decision to grant WS' Petition. WS did not object. The City did not submit any interrogatories

In its interrogatory responses to the Council, WS provided the following information/project revisions to address the Council's concerns;

Watery Quality

- a) The minimum wetland buffer to the limit of disturbance was increased from 23 feet to 50 feet;
- b) An in-field verification of the on-site potential vernal pool limits was performed on March 29, 2021;
- c) A 100-foot minimum buffer would be maintained to the on-site potential vernal pool;

¹ There is nothing in the Council's statutes or regulations to deny a petition for a declaratory ruling *with prejudice*. Attachment of "with prejudice" to final decisions is based on Council precedent finding that a site is not suitable for the proposed development.

- d) The design of the northern stormwater basin (Basin #1) was revised to include bottom drains to reduce the likelihood of prolonged periods of standing water within the basin that could act as a decoy vernal pool;
- e) The amount of project clearing was reduced by 0.6 acre;
- f) The Petitioner discussed the Project with the DEEP Stormwater Division and incorporated recommended stormwater design changes;
- g) Additional in-field soil surveys/testing were performed to determine exact stormwater design measures;
- h) Forebays were incorporated into the design of the two proposed stormwater basins;
- i) The solar field area would be re-graded to a 15 percent slope or less to eliminate sharp ledge drop offs and uneven pitches;
- j) The construction sequence was modified to include one growing season upon completion of the stormwater basins, swales, perimeter erosion and sedimentation controls, and solar field grading, prior to the commencement of solar array construction. One growing season is defined as April 1 through June 15 or August 15 through October 15; and
- k) An inspection protocol was established for review of erosion and sedimentation controls prior to the commencement of each construction phase.

Rock Processing

- a) Removal of rock/ledge would be performed to excavate the stormwater basins/swales and to re-grade the site to 15 percent or less slopes, as necessary;
- b) Rock/ledge would be removed by mechanical methods. No blasting would occur;
- c) The Project cut and fill estimates were revised to 11,500 yards of cut and 6,000 yards of fill, with an overall net cut of 5,500 yards. Thirty percent of the overall cut (3,500± yards) would be composed of rock;
- d) Excess cut material would be either trucked off-site or processed on-site for use as trench backfill or general fill;
- e) If cut material is used as backfill or general fill, a mobile rock processor would be set up on-site. Large rocks would be broken down by a pneumatic hammer mounted to an excavator, and fed into the rock processor;
- f) Any rock processing at the site would take 2 - 3 weeks;
- g) Dust from rock processing would be controlled by water or tackifiers. Temporary sediment basins would be excavated adjacent to the rock processor to control water runoff. The water is considered stormwater rather than wastewater; and
- h) The rock processor is designed to minimize ground vibrations and would not affect any nearby wells.

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 Petition 1395A facility has a generating capacity of 1.99 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.

The Petitioner was awarded two 15-year contracts with the United Illuminating Company (UI) 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. At the end of the 15-year contract period, WS would seek other revenue mechanisms for the energy produced by the facility. The Project has a useful life of approximately 45 years.

The proposed project would be subject to virtual net metering (VNM) agreements with the Town of Fairfield.

Proposed Site

The Petitioner proposes to construct the solar facility on a site² located on an approximately 12.72 acre parcel that is zoned residential (RA). The parcel is mostly undeveloped except for a two-story house, a shed, and a barn foundation that are accessed from Benz Street.

Most of the site consists of woodland with some wetlands in the northwestern area and grassy areas along Benz Street. Surrounding land use consists of predominately residential to the east, west and south and undeveloped forest to the north. The site is located on a shallow hill that gains elevation moving northeast from Benz Street, then gradually descends to the wetland located in the northwest portion of the site. Site topography ranges from 400 feet to 456 feet above mean seal level.

WS considered the following factors in selecting the site:

- a) Solar resource, soil characteristics and site topography;
- b) local eclectic demand; and
- c) proximity to suitable electrical infrastructure.

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.³

Proposed Project

The solar facility would be constructed within an approximate 9.0 acre area of the site parcel. It would consist of two side by side solar array areas totaling 1.99 MW AC (Project 1 and Project 2, collectively, the Project). Each project array would consist of approximately 2,676 solar modules, based on a module rating of 475 Watts DC. The modules would be installed on a fixed-tilt ground-mounted racking system and oriented to the south at a 25 degree angle.

The efficiency of the panels would be 16 to 19 percent, depending on the specific manufacturer and model selected at the time of construction. The panel efficiency decreases approximately 0.5 percent per year.

² 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.

³ *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007); CGS §16-50p(g) (2019).

The modules would be installed with a minimum ground clearance of approximately 3 feet. The maximum height at the top of the solar panels would be approximately 9.4 feet. The aisles between the panel rows would have 11.1 feet of clear space.

Due to subsurface conditions that include subsoil, glacial till, and weathered rock, the racking system would be supported by ground screws. Pre-drilling is anticipated to install the ground screws due to the relative density of subsurface conditions. The results of the geotechnical study will be utilized by the selected racking manufacturer in their final design of the racking system, with slight adjustments made in post locations based on in-field conditions.

Due to exposed ledge, boulders terrain, and sharp slopes, approximately half of the solar field area would be re-graded to attain slopes of 15 percent or less. Voids in the ground from rock removal would be filled with gravel. Areas of exposed rock would be covered with six inches of topsoil and seeded. Erosion control matting would be used where necessary.

The project would require 11,500 cubic yards of cut and 6,000 cubic yards of fill, for an excess cut of 5,500 cubic yards. Specifics of material processing and location of resulting fill material would be determined by the excavation contractor. Boulders may be placed around the site perimeter to be used as site screening.

If a rock processor is used on-site, large rocks would be broken down by a pneumatic hammer mounted to an excavator, so that they can be fed into the rock processor. A rock processor can handle 200 yards of material per day. Rock processing at the site would take 2-3 weeks. Dust from rock processing operations would be controlled by water or tackifiers. Erosion and sedimentation controls and temporary sediment basins would be excavated adjacent to the processor to control water runoff.

The structures and an old driveway on the property would be removed. Environmental remediation would be performed prior to building demolition, if necessary. An area of old, non-suitable fill material near the structures would be excavated and replaced with suitable fill to support the proposed solar racking system. A Phase II environmental survey determined the old fill material to be non-hazardous (i.e. bricks, stumps, masonry blocks).

The Petitioner would utilize string inverters for the project with wiring attached to the racking or installed in a cable tray. String wiring at the end of the rows would transition to underground conduit extending to two concrete utility equipment pads located adjacent to the access road. Project switchgear, transformer and communication equipment would be installed on the pads. Three new utility poles would be installed for an overhead connection to UI's existing distribution system on Benz Street.

The site would be accessed by a new, 14-foot wide, 150-foot long gravel driveway extending from Benz Street. A seven-foot tall security fence would enclose the solar field.⁴ The fence is designed with sufficient interior perimeter clearance for site accessibility and maintenance around the facility.

The project would connect to UI's electric distribution grid at an existing 23 kV overhead line located along the southeast side of Benz Street. The interconnection would be in accordance with UI's technical standards and ISO-New England, Inc. and Federal Energy Regulatory Commission requirements. The point of interconnection requires pole-mounted metering and circuit protection equipment. UI has performed a system impact study for the Project and found that interconnection upgrades must be performed prior to facility interconnection. UI is currently examining various options to facilitate the interconnection.

⁴ 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."

Work hours would typically be 7:00 a.m. to 6:00 p.m., Monday through Friday and 7:00 a.m. to 5:00 p.m. Saturday and Sunday. If approved, Council staff suggests any Sunday work hours to be specifically requested, as necessary.

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. The electrical system would be monitored remotely.

The string inverters are installed so that if one section of the solar array experiences an electrical problem that causes that section to shut down, the other sections of the solar array would still operate and transmit power to the local distribution system.

The City Fire Marshal reviewed the project and had no concerns regarding site clearances or the proposed access road. At the request of the Fire Marshal, WS would provide emergency response training and site plans as well as conduct an on-site review of the facility layout. Local emergency responder personnel would be provided access to the facility via a Knox Pad lock.

The site would be secured with perimeter fencing, a locked access gate and motion sensitive video security cameras installed around and within the perimeter fence.

The nearest federally-obligated airport to the proposed facility is Tweed New Haven Airport located approximately 15 miles to the southeast of the proposed site. An aviation glare analysis is not required. By letters dated April 23, 2020, the Federal Aviation Administration) issued a Determination of No Hazard to Air Navigation.

The operational sound levels at the site would be below the 55 dBA daytime noise limit for a commercial emitter to a residential receptor in accordance with DEEP Noise Control Regulations. The night time noise limit for a commercial emitter to a residential receptor is 45 dBA. The noise generating equipment at the site (inverters/transformers) would diminish below 55 dBA at a distance of 16.4 feet and diminish below 45 dBA at 55.1 feet. None of the property boundaries are within 55.1 feet of the noise generating equipment.

Construction related noise is exempt from DEEP Noise Control Regulations.

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 determined the proposed facility would not have an effect on historic properties.

No public parks or other publicly accessible recreation resources are located adjacent to the site.

Visibility

Due to the site's location on a hillside, a portion of the solar field would be visible from Benz Street and to residences on the southeast side of Benz Street, facing the project. The solar panels would be approximately 87 feet from Benz Street at their closest point. The nearest residence from the site is located approximately 137 feet to the southwest on Benz Street.

WS would maintain a 25-foot wide no clearing buffer to preserve woodland between the project and the residential properties to the northeast and southwest.

To mitigate views from Benz Street as well as from abutting residential properties, WS would install 6 to 8 foot arborvitae at 10-foot intervals along the perimeter fence. The plantings would be routinely inspected during the first two years of installation to ensure they become established. In addition, WS would be willing to install a black vinyl coated fence along Benz Street.

No exterior lighting would be installed at the proposed site.

Agriculture

There are no mapped Prime Farmland Soils at the site.

WS proposes to implement a livestock co-use plan for the site that includes rotational sheep grazing of the solar field area from April to October. Rotational grazing would maintain site vegetation, reducing the need for mechanized mowing and weed control, resulting in a decrease in maintenance costs over the life of the Project.

The solar field would be separated into rotational grazing zones through the use of temporary fencing. No outbuildings are required. Based on previous installations, sheep do not typically chew on wires or climb on solar infrastructure.

A Fuzz & Buzz™ seed mix would be used at the site to provide forage for sheep as well as habitat for pollinator species. Nutrients from animal waste would be absorbed by vegetation planted within the solar array and stormwater basins.

The agricultural co-use of the project is not essential and WS would be willing to operate the facility without the livestock grazing component.

Wetlands and Watercourses

A forested wetland is located in the northwest portion of the site that extends off site. Its hydrology appears to be supported primarily by groundwater seeps discharging from the extremely stony uplands upgradient of the wetland. The seeps are not identified as wetlands under state criteria.

The project has been designed to maintain a minimum 50-foot undisturbed buffer between the on-site wetland and limit of disturbance.

No solar panels would be installed within 100 feet of the wetland.

A potential vernal pool (PVP) was identified within the wetland, bisected by the property boundary. A vernal pool study was performed in September 2020 and although no vernal pool obligate species were identified during the survey, it is likely the PVP would support these species. The limits of the PVP were field verified on March 29, 2021.

An impact analysis of the PVP determined that the existing critical terrestrial habitat (CTH), the area that extends from 100 feet to 750 from the PVP edge, is presently 34 percent developed, above the 25 percent development value as recommended by the United States Army Corps of Engineers Vernal Pool Best Management Practices (VP-BMPs) to maintain quality vernal pool habitat. The project would increase the developed portion of the CTH by approximately 18 percent. Consistent with the VP-BMPs, no development would occur within the vernal pool envelope which extends from the PVP edge to a distance of 100 feet.

The northern stormwater basin (Basin #1) is adjacent to the PVP envelope. To reduce the potential for the basin to act as a vernal pool species decoy pool, the basin is designed with bottom drains to reduce the likelihood of prolonged periods of standing water within the basin. Although development of the site may disturb the groundwater seeps that discharge cold water to the wetland and adjacent vernal pool, Basin #1 has been designed to capture site runoff and discharge towards the adjacent wetland.

Both basins would be seeded with a wetland plant seed mix.

Wildlife

The Petitioner submitted a request to DEEP for a Natural Diversity Database (NDDDB) review of the Project. DEEP responded to the Petitioner on January 24, 2019 indicating that the project is not within a mapped NDDDB area. This NDDDB determination expired on January 24, 2021.

During the PVP survey in September 2020, the field biologist identified an eastern box turtle, a state special concern species, within the on-site forested wetland. WS has developed an amphibian and box turtle protection program that includes an on-site environmental monitor, protective barriers, weekly species sweeps from March 1 through May 15th, and project reporting.

One federally-listed Threatened-Species and state-listed Endangered-Species, the northern long-eared bat, (NLEB) occurs within the Connecticut. 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.

Forest

Development of the Project would require clearing of approximately 10.0 acres of forest, of which 9.0 acres would be for the solar field area. Stumps would be removed to a distance of 25 feet from the perimeter fence line to facilitate the installation of landscaping and shade mitigation.

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.

Over the expected 45-year lifespan, the facility would result in the offset/elimination of approximately 156,229 tons of CO2 equivalent, or about 33,029 passenger vehicles taken off the road.

Water Quality

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

Groundwater in the site area is classified GA which is presumed to be suitable for direct human consumption without the need for treatment. Designated uses are existing private and potential public drinking water supply.

Rock removal to develop the site would occur at the surface and impacts to adjacent drinking water wells are not anticipated. Rock processing would not create vibrations that could damage area wells.

Project work would be performed in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*.

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.

WS has designed the stormwater management system with documents prepared by a licensed Connecticut Professional engineer. The facility was designed to comply with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control*, the *2004 Stormwater Quality Manual* and the hydraulic modeling requirements outlined in DEEP's Appendix I, Stormwater Management at Solar Array Construction Projects document. WS submitted a Stormwater Permit application for the project to DEEP on December 30, 2020. WS has met with DEEP to discuss the Project. Project changes based on comments from DEEP as well as from additional in-field soil surveys/testing have been incorporated into the Project plans.

A stormwater analysis identified two main watersheds on the site: Watershed 1 is a 2.48 acre area along Benz Street; Watershed 2 is an 8.1 acre area located in the central and western portion of the site. A site construction phasing plan has been developed that includes three main construction phases based on the watershed areas as well as an inspection protocol that includes a review of erosion and sedimentation controls and site stabilization methods by a site inspector for each phase of construction.

Phase 1A includes site clearing across the site, followed by construction of the Watershed 1 stormwater basin, grubbing, grading and disturbed area stabilization. Phase 1 would commence after the Phase 1 disturbed areas have stabilized. Phase 2 includes construction of the Watershed 2 stormwater basin, grubbing, and grading.

After completion of grading activities, the site would be hydroseeded and allowed to stabilize for one growing season, defined as April 1 through June 15 or August 15 through October 15, before commencement of construction of the solar array (Phase 3).

Two post-construction stormwater basins are proposed. Stormwater Basin #2 is a linear basin located along the south edge of the site. A single grass lined emergency spillway discharges towards Benz Street. Excess discharge would be captured by a catch basin on Benz Street. Peak flow rates from the sub-watershed that drains to Benz Street are reduced due to the installation of the stormwater basin. Basin #1 is a linear basin with two micropools on each end that extends along the northwest side of the solar field, within the perimeter fence. A single rip-rap emergency spillway discharges towards the on-site wetlands. Both basins would be planted with a wetland plant seed mix. Forebays were incorporated into the design of the two proposed stormwater basins to capture sediment.

Decommissioning Plan

A Decommissioning Plan was included in the Petition that has provisions for project removal, component recycling and site stabilization/restoration. The stormwater management system would remain in place.

Conclusion

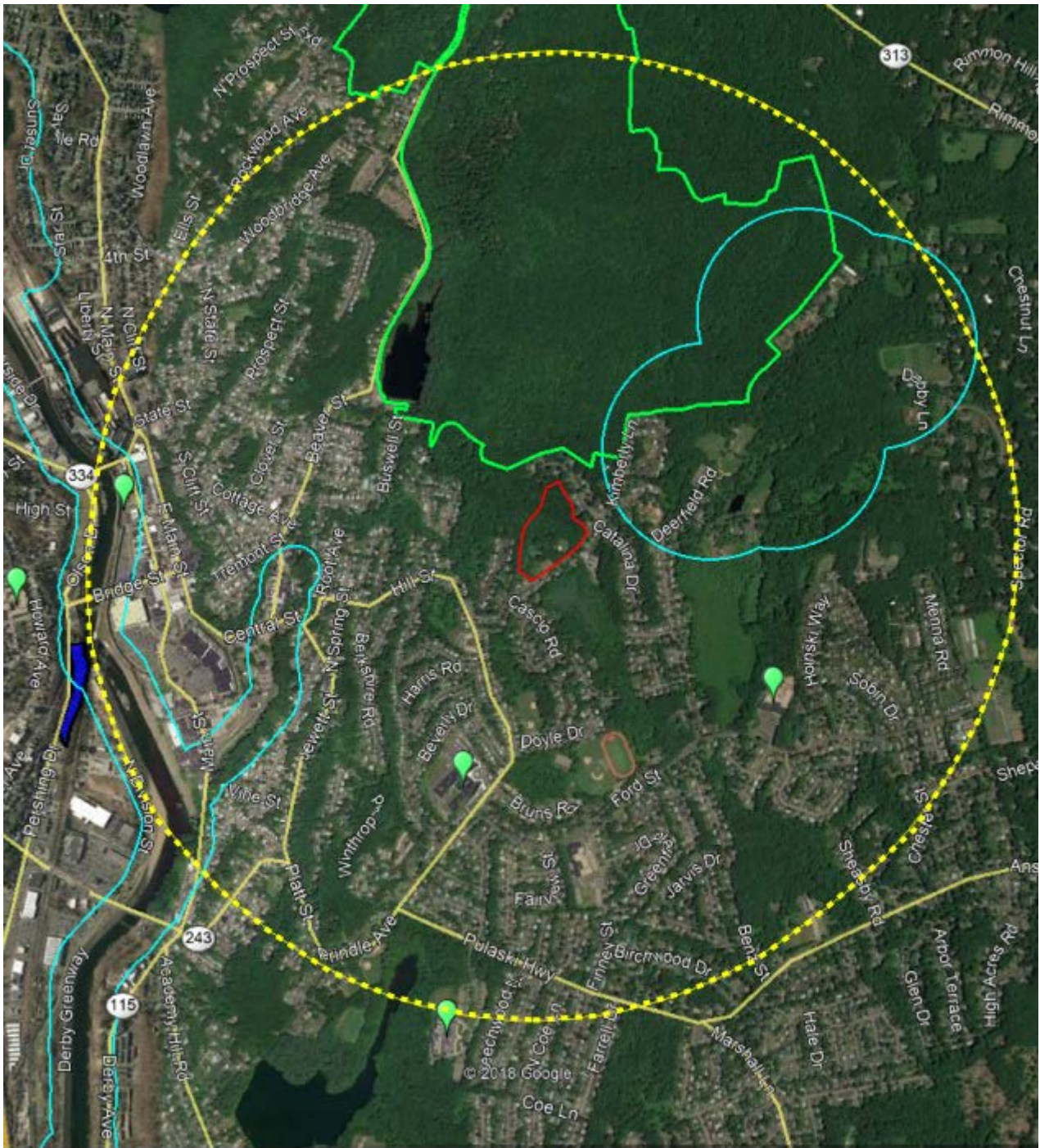
The project is a grid-side distributed resource with a capacity of not more than sixty-five megawatts, meets air and water quality standards of the DEEP, and would not have a substantial adverse environmental effect. The proposed project will not produce air emissions, will not utilize water to produce 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.

Recommendation

If approved, staff recommends the following condition:

1. The Petitioner shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies. The D&M Plan shall be provided to the service list and 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 facility layout, access roads, electrical interconnection including riser pole locations, fence design, equipment pads, and stormwater management control structures;
 - b. Details of construction phasing that includes, at a minimum, one growing season upon completion of the stormwater basins, swales, perimeter erosion and sedimentation controls, and solar field grading, prior to the commencement of solar array construction. One growing season is defined as April 1 through June 15 or August 15 through October 15;
 - c. Submit a box turtle protection program;
 - d. Submit a copy of the DEEP Stormwater Permit;
 - e. 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;
 - f. Final plans for hosting sheep grazing at the site, if applicable, including, but not limited to, provisions for emergency evacuation;
 - g. Installation of a black vinyl-coated solar field perimeter fence along Benz Street with a six inch gap at the bottom for wildlife movement if WS opts not to host sheep grazing at the site under (f);
 - h. Construction hours shall occur Monday through Saturday with any Sunday work to be requested, as necessary;
 - i. Submit an updated DEEP NDDB determination letter prior to commencement of construction;
 - j. Consult with the DEEP Dam Safety Program regarding permitting requirements, if any, for the proposed stormwater basins prior to site construction;
 - k. Solar module specifications that indicate the selected solar module will not contain PFAS and will not be characterized as hazardous waste through applicable TCLP testing at the time of this decision; and
 - l. Identification of the location for the on-site disposal of excess cut material from site grading activities. If a rock processor is to be used on-site, submit details regarding the location of the processor and associated erosion/sedimentation controls and sediment traps, and details of water use to control dust emissions.

Site Location



Legend		Critical Habitat	
State Forest	Project Area	Natural Diversity Area	Terrestrial Forested
State Park	1 Mile Project Buffer	WMA	
Water Access	County Border	Transmission Line	
Hospital	School	Road	

Aerial Site Plan



Site Plan Drawing

