



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

November 9, 2020

Lee D. Hoffman, Esq.
Pullman & Comley LLC
90 State House Square
Hartford, CT 06103-3702

RE: **PETITION NO. 1421** - Bristol Solar One, LLC petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 3.25 megawatt AC solar photovoltaic generating facility located at 399 Hill Street, Bristol, Connecticut, and associated electrical interconnection.

Dear Attorney Hoffman:

At a public meeting held on November 5, 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 interconnection, fence design compliant with the National Electrical Code, equipment pads and landscaping plan;
 - b) Construction site plans that comply with the 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, and details regarding construction-related environmental mitigation measures;
 - c) Post-construction restoration plan for all disturbed areas of the site;
 - d) Post-construction site maintenance and vegetation management plan;
 - e) Details regarding co-use of the site for livestock;
 - f) Contact information for construction contractor;
 - g) ISO-NE interconnection determination, if applicable;
 - h) Plans to comply with DEEP site clearing restrictions for the eastern box turtle and bobolink, as specified in DEEP's NDDB Determination letter dated March 27, 2020;
 - i) A copy of the DEEP Stormwater Permit prior to the commencement of construction; and
 - j) Consultation with the DEEP Dam Safety program regarding permitting requirements, if any, for the proposed stormwater basins prior to site construction.
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 Bristol;
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 20, 2020 and additional information received on July 22, and September 15, 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

Enclosure: Staff Report dated November 5, 2020

c: The Honorable Ellen Zoppo-Sassu, Mayor, City of Bristol
Robert Flanagan, Town Planner, City of Bristol
William Herchel, Bristol Solar One, LLC
Brian Fitzgerald, Bristol Solar One, LLC



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Petition No. 1421

Bristol Solar One, LLC

399 Hill Street, Bristol, CT

Staff Report

November 5, 2020

Introduction

On July 20, 2020, the Connecticut Siting Council (Council) received a petition (Petition) from Bristol Solar One, LLC (petitioner) for a declaratory ruling pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k for the construction, operation and maintenance of a 3.25 megawatt (MW) alternating current (AC) solar photovoltaic electric generating facility located at 399 Hill Street, Bristol, Connecticut.

Pursuant to Regulations of Connecticut State Agencies (RCSA) §16-50j-40 on or about May 26, 2020, the Petitioner notified the abutting property owners of the proposed project. The Petitioner notified City of Bristol (City) officials, state officials and agencies, of the proposed project on or about July 20, 2020.

On July 29, 2020, the Council issued an incomplete letter to the petitioner, identifying a deficiency in compliance with CGS §16-50k(a) requiring written correspondence from the Department of Agriculture (DOAg) stating that the proposed facility will not materially affect the status of prime farmland. On August 17, 2020, DOAg provided correspondence to the Council indicating that that there does not appear to be a material impact on the status of prime farmland as long as proposed agricultural co-use of the parcel is incorporated. On August 19, 2020, the Council submitted correspondence to the petitioner stating that the Petition is complete.

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, and therefore, the deadline for this petition was September 18, 2020. 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 for action to December 17, 2020.

The Council issued interrogatories to the petitioner on August 26, 2020. On September 15, 2020, the petitioner submitted responses to the Council's interrogatories.

Municipal Consultation

The Petitioner has been in communication with City officials regarding the design and development of the project.

On July 21, 2020, the Council sent correspondence to the City stating that the Council has received the Petition and invited the City to contact the Council with any questions or comments by August 19, 2020. No comments were received from the City.

State Agency Comments

On July 21, 2020, the Council sent correspondence requesting comments on the proposed project from the following state agencies by August 19, 2020: Department of Energy & Environmental Protection (DEEP); 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).

In response to the Council's solicitation, CEQ submitted comments on August 28, 2020. These comments are attached. No other state agencies provided written comments on the project.

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.¹

Public Act 17-218

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 land as core forest.” PA 17-218 requires a project developer to obtain a letter from DOAg OR DEEP. The Petitioner has secured written confirmation from both DOAg and DEEP.

Pursuant to CGS §16-50x, the Council has exclusive jurisdiction over the construction, maintenance and operation of solar photovoltaic electric generating facilities throughout the state. PA 17-218 requires developers of solar facilities with a generating capacity of more than 2 MW to obtain a written determination from DOAg or DEEP that the project would not materially affect the status of land as prime farmland or core forest prior to submission of a petition for a declaratory ruling to the Council. PA 17-218 does not confer the Council's exclusive jurisdiction over the construction, maintenance and operation of solar photovoltaic electric generating facilities throughout the state upon DOAg or DEEP. PA 17-218 also does not permit DOAg or DEEP to impose any enforceable conditions on the construction, maintenance and operation of solar photovoltaic electric generating facilities under the exclusive jurisdiction of the Council.

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

¹ *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007)

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 a contract with The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) under the state’s Low and Zero Emissions Renewable Energy Credit Programs (LREC/ZREC Program) to sell the renewable energy credits 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.

The Petitioner would sell renewable energy certificates (RECs) to The Connecticut Light & Power Company, d/b/a/ Eversource Energy via a 15-year fixed price Low Emission Renewable Energy Certificate (LREC) Contract that was executed in August 2019. Any RECs that are produced in excess of the maximum annual quantity defined in the LREC Contract may be sold on the spot market.

In the event that virtual net metering capacity becomes available, the Project may deliver energy to certain eligible recipients through the Eversource’s Virtual Net Metering Rider (PURA Decision dated October 21, 2019 under Docket No. 13-08-14RE05). Should virtual net metering capacity become available, the Project intends to deliver energy and allocate credits to eligible agricultural and municipal recipients.

The Petitioner intends to participate in the ISO-NE Forward Capacity Auction #15 in 2021 for the commitment period in 2024/2025.

Proposed Site

Pursuant to a lease agreement with the property owner, the Petitioner proposes to construct the solar facility on a site² located on an approximately 26.9 acre parcel. The site is mostly undeveloped agricultural land, with a farmhouse and several farm buildings located within the northeast corner of the parcel. The western extent of the site is wooded and contains a wetland. The site is privately-owned and is zoned Residential (R-25).

The site has road frontage on Hill Street to the west and along Minor Street to the north. Minor Street is an existing City-owned gravel road which extends west from Hill Street.

Surrounding land use consists of residential use generally to the southeast and east, commercial use to the north and west, and undeveloped land to the southwest.

The Petitioner selected the site due to limited environmental impact and the proximity to an electrical interconnection. 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

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 solar field would occupy approximately 13 acres of the Site, with an additional 5.9 acres of disturbance beyond the solar field to develop stormwater features, for a total site development area of \pm 18.9 acres. The eastern portion of the property, approximately 8.0 acres would remain undeveloped and available for other uses by the landowner.

Proposed Project

The Project consists of the installation of 11,258 photovoltaic modules (9,386 400 Watt and 1,872 380 Watt). The panels would be arranged in linear rows, oriented to the south at a fixed 30° angle. The panel rows would be approximately 11.4 feet wide, separated by a 16-foot wide aisle from panel edge to panel edge. The modules would be installed approximately 10-feet above final grade with a ground clearance of approximately 3 feet.

The modules would be supported on racking tables with each table holding between 12 and 20 modules, depending on the row arrangement. Posts supporting the tables would be driven into the ground or installed using drilled pier concrete foundations, depending on the depth to bedrock. A geotechnical survey of the site that include test borings in eight locations indicate that site soil conditions generally consist of 1 to 2 feet of topsoil over 3 to 14 feet of glacial till. Depth of weathered rock was at a minimum depth of eight feet.

Other equipment includes 26 inverters, 2 pad mounted switchgears, 3 transformers, and 3 service interconnection points. The majority of the wiring would be installed on the racking system. Where wiring is not installed on the racking system, it would run in conduit.

The output of the facility would be approximately 3.25 MW AC at the point of interconnection. The Petitioner has no current plan to incorporate a battery energy storage system.

The facility would have an anticipated service life of 35 years. The Project capacity factor is approximately 20.6 percent. The annual power degradation as the panels age would be approximately 0.5 percent per year.

The site would be accessed from Minor Road. The Petitioner would improve an approximate 460-foot long section of Minor Road for Project use, upon permitting and approval from the City. A 425-foot long, 15-foot wide gravel access road would extend from the site entrance on Minor Street southward into the solar field, terminating at a hammerhead turnaround at the south fence line.

The Petitioner has an interconnection agreement with Eversource. An ISO-NE interconnection study is not anticipated due to the small scale of the Project.

The Project would interconnect to Eversource's existing 15U2 distribution circuit that extends along Minor Street. Eversource would be responsible for interconnection work including, but not limited to, the installation of utility poles for metering and protection/controls equipment. The metering poles create the Project's electrical limit and would be located between the existing distribution circuit on Minor Street, and the equipment pads within the array area. The interconnection to the distribution circuit would reduce the overall electrical load on the interconnecting circuits.

Existing topography generally slopes from north to south with some southeast and southwest aspects. Ground elevations range from approximately 809 feet above mean sea level (AMSL) in the northern portion of the site to 673 feet AMSL to the south.

Earthwork would include excavation and grading to develop stormwater control basins and associated swales as well as earthen berms along the south side of the site. Approximately 1.9 acres of the site would have post-construction grades exceeding 15 percent.

No net cut would be expected to result from grading as cut and fill volumes would be approximately equal. In total, about 16,239 cubic yards of cut would occur for the stormwater management system, of which 2,282 cubic yards would be used to create stormwater features and 13,977 cubic yards used to create two earthen berms along the south side of the site. The berms would have a varying height above grade due to sloping topography. The southeastern berm would range from 6 to 25 feet in height and the southwestern berm would range from 11 to 25 feet in height.

Construction is expected to start in November 2020 and would occur over a six month period. Typical construction hours and work days of the week are as follows: Monday – Friday 7:00 AM to 4:00 PM, Saturday 7:00 AM to 4:00 PM, and Sunday 9:00 AM to 4:00 PM. These work days and hours are consistent with City ordinances.

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.

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

Public Safety

The proposed project would comply with the National Electrical Code, National Electrical Safety Code and National Fire Protection Association codes and standards, as applicable. The Petitioner contacted the City Fire Marshal and has designed the system in accordance with the CT State Fire Prevention Code, Section 11.12.3 - Ground Mounted Photovoltaic System Installations.

The nearest federally-obligated airport to the site is Robertson Field Airport in Plainville, located approximately 5.7 miles to the east of the proposed facility. Under Federal Aviation Administration (FAA) criteria, the Project would not be a Hazard to Air Navigation or require a FAA glare analysis. The solar modules are designed to absorb light, rather than reflect light.

The Facility would be remotely monitored and would have the ability to remotely de-energize in the event of a fault or other power outage event and/or emergency. The Petitioner is willing to offer training to local emergency responders.

The solar field would be enclosed by a six-foot high chain link fence⁴. The main entrance to the Facility would be gated, limiting access solely to authorized personnel. All City emergency response personnel would be provided access via a Knox padlock.

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.”

The proposed facility would be in compliance with DEEP Noise Control Standards. Project-related operational noise is not expected to exceed 31.9 dB at the nearest property line. 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 zones.

Environmental Effects and Mitigation Measures

Historic and Recreational Resources

According to SHPO files, no properties or districts listed on the National or State Register of Historic Places are located within one mile of the proposed Project. Based on a review of historic maps, aerial photographs, and soil profiles, the site possessed a potential for moderate to high archaeological sensitivity. Subsequent field evaluations of the site found no evidence of archaeological significance that warranted listing on the National or State Register of Historic Places.

By letter dated May 28, 2020, SHPO concurred with the findings of the historic/archeological study and further commented that a collection of 3 old barns, located approximately 475 feet northeast of the site, would not be impacted by the facility due the presence of intervening vegetation and existing structures.

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

Visibility

The proposed project would be visible year round from adjacent residences and public roads including, but not limited to, Hill Street to the east and Clover Road to the south. Generally, the majority of views of the facility would occur from locations within 500 feet.

Landscape plantings consisting of the installation of 41 ten-foot tall emerald green arborvitaes, would be installed along the southeast portion of the property line to provide some screening of the facility from abutting residential properties. In addition a 10 to 15-foot high grass berm to be constructed to the south of the solar array perimeter fence would provide visual screening from several abutting properties.

No exterior lighting is proposed for the facility.

Agriculture

The subject property contains prime farmland soils according to mapping maintained by the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS). 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 majority of the site was used as agricultural land for over 30 years. A portion of the western part of the site has transitioned to scrub shrub and woodlands while the central and eastern portions of the site have continued to be used for agricultural activities.

Approximately 14.8 acres of mapped prime farmland are present at the site, of which approximately 11.2 acres are within the project footprint. By letter dated August 17, 2020, pursuant to PA 17-218, DOAg indicated that the proposed project would not materially impact the status of prime farmland as long as the Petitioner implements its proposed co-use of the Project site by allowing a flock of sheep to rotationally graze the fenced solar field area. The density of sheep flock would be determined by site specific forage quantity and weather conditions.

The solar field would have a cover of sun/shade tolerant grasses that provides forage stock. The potential for module damage is minimized by the three-foot leading edge and angle of the modules. Sheep are not likely to jump onto and damage modules. Sheep are also unlikely to damage the wiring mounted on the racking system. A livestock shed is not proposed at the site as the sheep would seek shelter beneath the solar modules on hot or rainy days.

Approximately 2.1 acres of prime farmland soils would be excavated, stockpiled, and permanently stored as the top layer of the berms.

Wetlands and Watercourses

The Petitioner performed a wetland survey at the site during November 2019. Three wetlands comprising approximately 0.89 acres were delineated on and adjacent to the site. No vernal pools were identified. The wetland areas are as follows:

- Wetland 1 is located offsite, adjacent to Minor Street, and consists of a complex of hillside seeps and an interior emergent swamp. An intermittent watercourse (IWC 1) drains from the wetland through a culvert under Minor Street onto the eastern portion of the Site.
- Wetland 2 is located along the south property line consisting of a headwater wetland seep system that supports emergent and scrub-shrub vegetation. It drains off-site to the south.
- Wetland 3 is located along the west property boundary and consists of hillside seeps and seasonal flooded areas supporting emergent, scrub-shrub and forested vegetation and contains a perennial watercourse. A man-made drainage swale (IWC 3) enters the northeast portion of the wetland from an unimproved portion of Minor Street.

Development of the Project would not directly affect any of the delineated wetland resources. Additionally, the Project work would be performed in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control*. A minimum 50-foot buffer would be maintained to Wetlands 2 & 3 in most areas. Limited grading associated with improvements to Minor Street would occur along the edge of Wetland 1 but within existing developed and disturbed areas. A proposed stormwater swale would be constructed approximately 18 feet from IWC 1 but no impact is expected as the areas bordering IWC 1 are maintained hayfields. Some vegetation clearing would occur within in close proximity to IWC 3.

Wildlife

A DEEP Natural Diversity Data Base (NDDDB) project review, dated March 27, 2020, identified two State-listed Special Concern species that have been recorded in the Project area: Eastern box turtle and Bobolink.

The eastern box turtle can be found in a variety of habitats including meadows, shrub land and forest. DEEP recommended protective measures, including but not limited to, contractor awareness training to the establishment of work area barriers to prevent turtles from entering construction areas, and limiting tree removal/land clearing to the turtle's active season, from April 1 to November 1, allowing turtles to move out of harms way and minimize mortality to hibernating individuals.

Bobolinks are grassland birds that require open grassy areas to forage, breed and nest. It can be found in grassland areas as small as five acres. DEEP recommended minimizing disturbance to bobolink habitat during the May 20 to August 20 timeframe.

The Petitioner has developed a Protection Plan that incorporates DEEPs recommendations and other protective measures for these species that includes education, work area isolation, species specific protective measures, and reporting. The petitioner's environmental consultant would conduct initial work area turtle sweeps within isolated construction areas prior to the commencement of initial construction. Daily sweeps would be conducted by the contractor thereafter. The Petitioner would attempt to conform to the Bobolink construction restriction time frame, but if the schedule requires work within the restricted time period, the Petitioner would conduct a bobolink breeding survey prior to the commencement of work, followed by protective measures, if breeding birds are found.

The northern long-eared bat (NLEB), a state-listed Endangered Species and federally-listed Threatened Species, is known to occur in Connecticut. However, the nearest known NLEB habitat resource is located 8.3 miles to the northwest and Project-related impacts to NLEB are not expected.

Due to proposed co-use of the solar field for livestock grazing, the perimeter fence has to be installed so that the fence fabric is flush with the ground.

Core 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 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. Forestland that that does not meet the definition of core forest is considered "edge forest". Edge forest is a forested area extending up to 300 feet from a non-forest feature such as a road.

The Project would result in the removal of approximately 2.7 acres of woodland. No core forest would be affected by the Project. By letter dated May 20, 2020, pursuant to PA 17-218, DEEP indicated that the proposed project will not materially affect the status of core 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 89 percent reduction in greenhouse gas emissions from Project operation over a 20-year period when compared to the operation of a natural gas fueled power plant with equivalent MWh production.

Water Quality

The site parcel is not within a DEEP-designated Aquifer Protection Area. There are no wells located on or proximate to the proposed site. 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 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.

All aspects of Project construction phasing, erosion and sedimentation control methods, and temporary and permanent stormwater control features are reviewed and approved by DEEP as part of the Stormwater Permit registration. No site construction activities can occur until the Stormwater Permit is issued. The Stormwater Permit includes a Stormwater Pollution Control Plan (SWPCP) that requires appropriate construction phasing and the establishment of erosion control features in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* and the *2004 Connecticut Stormwater Quality Manual*. DEEP has the authority to enforce Project compliance with its Individual or General Permit and the SWPCP.

In January of 2020, the Petitioner met the DEEP Stormwater Division for purposes of a pre-permit submission meeting. DEEP recommended the Project conform to the current version of draft Appendix I. The petitioner designed the project to conform to draft Appendix I.

The proposed facility would be designed with four stormwater basins; three located to the south side and one to the northwest of the solar field. Approximately 1.43 acres of rip-rap slope protection would be installed upslope of three of the basins to mitigate any concerns associated with erosion due to potential ground water seepage.

Due to a high water table, the basins may hold standing water for part of the year. Any water discharge from the basins would be to areas that do not subsequently flow onto abutting residential property.

The drip edge of each solar panel would not have an impact on the drainage patterns or channelization of flows, as stormwater would flow off the panels at multiple locations, allowing water to follow site topography.

Operation and Maintenance

The Project Resource Protection Plan includes provisions to protect NDDDB species at the site. If vegetation management requires mowing from April 1 to October 30, vegetation would be mowed to no lower than 7 inches above the ground surface to minimize impacts to any eastern box turtles that may be on the Site.

Pesticides and herbicides are not expected to be used at the Site. Any use of the substances would be minimized in areas within 100 feet of wetlands and watercourses.

The solar panels are not anticipated to require regular cleaning. No cleaning agents are anticipated to be used at the site.

If necessary, any accumulated sediment within the stormwater basins will be removed and transported from the stormwater features via a compact skid loader. The sediment would be spread and stabilized on upland areas on site or disposed of off site.

Decommissioning

A Decommissioning Plan was submitted to the Council and has provisions for project removal and component recycling when operation of the facility is discontinued. Following the removal of project related equipment, the Petitioner would stabilize and restore the site in accordance with the lease agreement with the property owner.

Conclusion

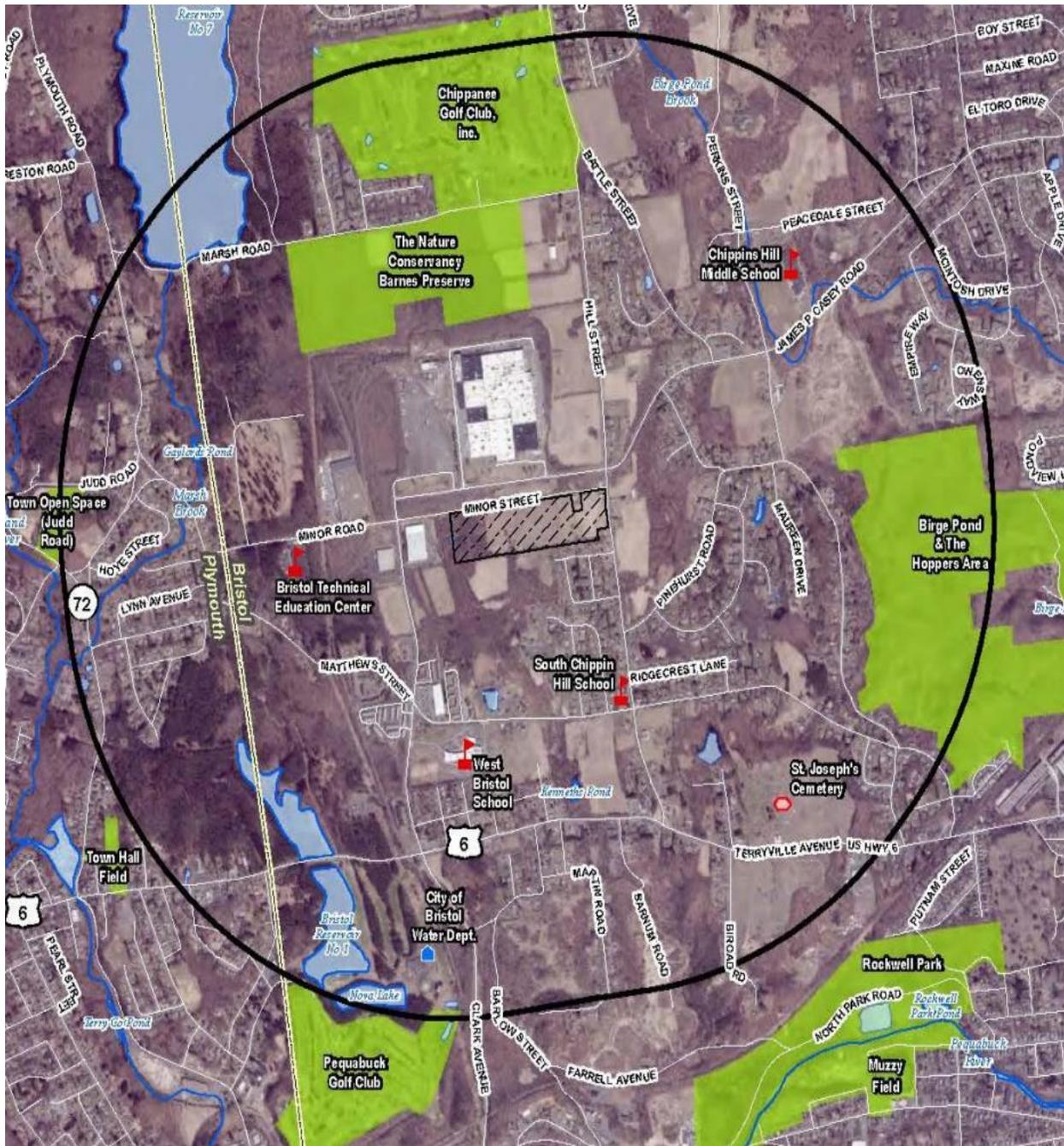
The project is a distributed energy resource with a capacity of not more than sixty-five megawatts, meets air and water quality standards of the DEEP, would not materially affect the status of prime farmland or core forest, and would not have a substantial adverse environmental effect. The proposed project 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.

Recommendations

If approved, staff recommends the following conditions:

1. Approval of any project changes be delegated to Council staff;
2. Submit the ISO-NE interconnection determination, if applicable;
3. Comply with DEEP site clearing restrictions for the eastern box turtle and bobolink, as specified in DEEP's NDDDB Determination letter dated March 27, 2020;
4. Submit a final fence design that complies with the National Electrical Code prior to the commencement of construction;
5. Submit a copy of the DEEP Stormwater Permit prior to the commencement of construction; and
6. Consult with the DEEP Dam Safety program regarding permitting requirements, if any, for the proposed stormwater basins prior to site construction.

Site Location and Area Features



Legend

-  Site
-  1 Mile Radius

Existing Conditions Map

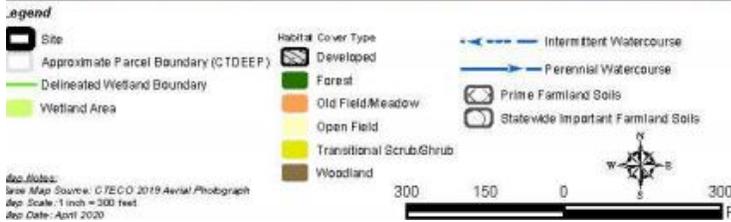
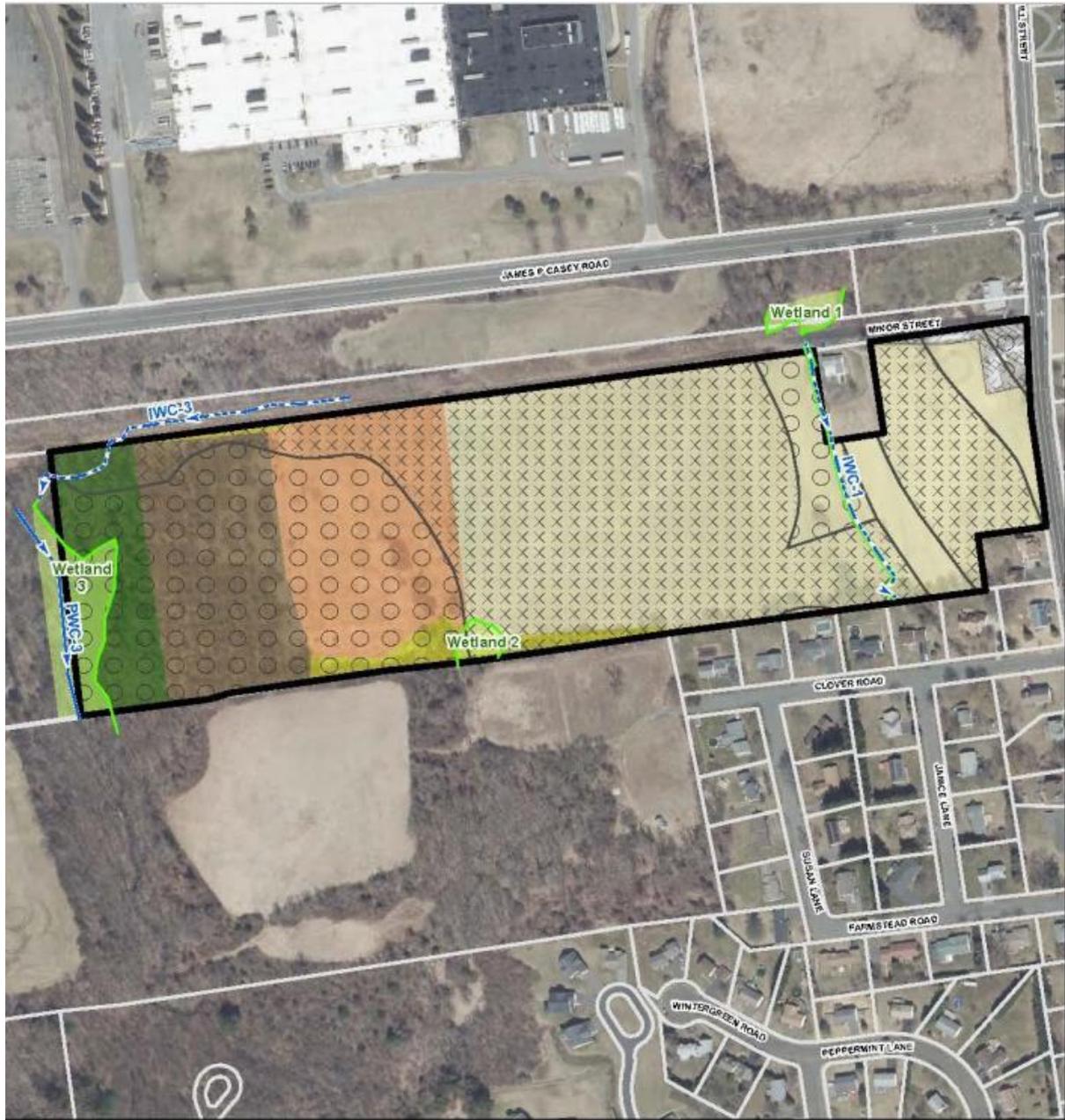


Figure 2
Existing Conditions Map
 Proposed Solar Facility - Bristol Solar One
 399 Hill Street
 Bristol, Connecticut
 Bristol Solar One, LLC

Notes:
 Base Map Source: © FICCO 2019 Aerial Photograph
 Map Scale: 1 inch = 300 feet
 Map Date: April 2020



Proposed Site Plan



- Legend**
- Site
 - Approximate Parcel Boundary (GTDEP)
 - Limit of Disturbance
 - Perennial Watercourse
 - Intermittent Watercourse
 - Delineated Wetland Boundary
 - Wetland Area
 - Solar Modules
 - Concrete Equipment Pad
 - Stormwater Basin
 - Gravel Access Road
 - Stormwater Swale
 - Perimeter Fence

Figure 3
Proposed Conditions Map
 Proposed Solar Facility - Bristol Solar One
 399 Hill Street
 Bristol, Connecticut
 Bristol Solar One, LLC

Map Date: April 2020
 Site Map Source: © ZECO 2019 Aerial Photograph
 Map Scale: 1 inch = 300 feet



ATTACHMENT A – CEQ Comments



STATE OF CONNECTICUT

COUNCIL ON ENVIRONMENTAL QUALITY

Keith Ainsworth

August 28, 2020

Alicea Charamut

Melanie Bachman, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

David Kalafa

Lee E. Dunbar

RE: PETITION NO. 1421 - Bristol Solar One, LLC petition for a declaratory ruling for the proposed construction, maintenance and operation of a 3.25 megawatt AC solar photovoltaic generating facility located at 399 Hill Street, Bristol, Connecticut, and associated electrical interconnection.

Alison Hilding

Kip Kolesinskas

Dear Ms. Bachman:

Matthew Reiser

The Council on Environmental Quality (“the Council”) supports the development of clean, renewable energy technologies on appropriate sites in Connecticut. The Council notes the recent increase in Petitions for solar energy projects that include co-location of grazing activities among the proposed solar panels. In the past two months, four Petitions (1421, 1422, 1424, 1426) proposed sheep grazing among the installed panels. At its meeting on August 26th, the Council voted to make it explicit, in its comments on those Petitions and possibly others to follow, that the co-location of ancillary agricultural activity at solar energy sites is not a remedy for the loss of prime farmland that the legislature intended to be preserved when it enacted PA 17-218.¹

Charles Vidich

Peter Hearn
Executive Director

In the case of Petition 1421, a rationalization that the proposal does not appear to be a material impact on the status of prime farmland has been offered by the Department of Agriculture. The Council notes that, to a significant degree, such a determination is dependent upon the success of decommissioning the proposed project after its useful life. To the Council’s knowledge, long-term soil preservation by dispersal about the site has not been attempted in Connecticut, nor has removal of the supports for the panels and the buried electrical conduits and other soil disturbances. Decommissioning and restoration is an unproven promise. At the expiration of the lease term, negotiation of a new contract to take advantage of the installed solar infrastructure is as probable as is a return to agriculture. The probability that the site will never return to farming needs to be acknowledged.

The Council is concerned about the scale of the statewide conversions of active, or potentially usable, farmland for renewable energy installations. These conversions have been most notable in the Connecticut River Valley, which is its own unique ecological area and a United States Department of Agriculture (USDA) designated resource area² because of the excellent soils and microclimate. This farmland usually contains prime farmland soils, which are the soils that are “best suited to producing food, feed, forage, fiber and oilseed crops”. Even if the addition of grazing among solar panels might assist with the short-term viability of an individual farm,

¹ House Session Transcript for 06/07/2017, and Senate Session Transcript for 06/06/2017, at [2017STR00606-R00-TRN.HTM](#) .

² USDA NRCS *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin*, at: https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_050898.pdf .

conversion to a solar facility can have negative regional impacts. It has been estimated that nearly 30 percent of the State's farmers depend on land that is leased³. Loss of access to those fields can severely affect those farms and disrupt their business viability, business succession planning, and even their ability to implement nutrient management plans (where a land base is needed to apply manure at safe rates). Loss of leased fields decreases farm density, and the suppliers of services and users of products are likely to move or close. Consideration of such cumulative and regional impacts by the Siting Council is within its authority under CGS Sec. 16-50p(a).

Both the preservation of farmland and development of renewable energy sources are essential to the State's future. It is at the Siting Council that these priorities intersect and sometimes conflict. Since June of 2020, this Council has reviewed six proposals to utilize farmland for renewable energy projects. The total farm acreage of active or potentially usable farmland in those five Petitions and one Application is over 330 acres of active or potentially usable farmland. Inclusion of the all projects reviewed by this Council in the past eight months brings the total to over 540 acres of Connecticut farmland that were the target for siting of solar energy facilities. By comparison, the total acreage acquired for preservation by the State for all of in 2019 was 773 acres. The continuing accretion of multiple individual decisions to site solar facilities on productive agricultural land has cumulative regional economic and ecological implications that go beyond the loss of farmland. For example, many permanent and migratory species depend on Connecticut's farm fields for habitat. The Council urges the Siting Council to weigh the cumulative regional economic and ecological factors when assessing the scale and location of each proposed siting.

The Council offers the following additional comments on wetlands and wildlife for Petition 1421:

The Council notes that the Petitioner proposes to utilize a fifty-foot buffer between wetland #3 and the proposed project area. The Council recommends that the Petitioner utilize a one hundred-foot buffer along the eastern portion of wetland #3, which would negate the need to clear some of the mature vegetation along the eastern extent of the existing "edge" upland forest habitat due to shading concerns. If the removal of trees is still necessary in this area because of shading concerns, retention in place of the stumps to reduce possible soil erosion should be considered.

The Petitioner estimates construction would take approximately six months to complete. However, the letter from the Department of Energy and Environmental Protection Natural Diversity Database (NDDDB) recommends that "work, particularly tree removal/land clearing activities, should occur when these turtles (eastern box turtle) are active (April 1 through November 1)". In addition, to avoid impact to bobolink, NDDDB recommends that work be performed outside of this bird's breeding season (May 20 through August 20). The proposed construction schedule, which is available through the Petitioner's website, identifies "Construction groundbreaking" beginning in November 2020, which is outside the "active" period for the eastern box turtle. More specificity regarding the construction schedule to demonstrate compliance with the NDDDB letter in order to protect the two-state-listed species that may be present on the proposed site would be appropriate.

Thank you for your consideration of these comments.

Sincerely,



Peter Hearn, Executive Director

³ UCONN webinar *Improving Access to Farmland in Connecticut*, Rachel Murray and Kip Kolesinskas 2015, at <https://www.youtube.com/watch?v=nvN1WJa7mgM&feature=youtu.be>