# ST

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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E-Mail: siting.council@ct.gov www.ct.gov/csc

# CERTIFIED MAIL RETURN RECEIPT REQUESTED

January 22, 2018

Christopher Little Windham Solar LLC c/o Ecos Energy LLC 222 South 9th Street, Suite 1600 Minneapolis, MN 55402

RE: **PETITION NO. 1323** - Windham Solar LLC petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed construction, maintenance and operation of three 2.0 Megawatt AC and two 1.0 Megawatt AC solar photovoltaic electric generating facilities on an approximate 43 acre parcel located at 134 Bilton Road, Somers, Connecticut.

Dear Mr. Little:

At a public meeting held on January 18, 2018, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal meets air and water quality standards of 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 following conditions:

- 1. The Petitioner shall prepare a Development and Management Plan (D&M) for the revised project layout in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Somers, Town of Enfield and DEEP Water Permitting and Enforcement Division for comment 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, access road, grading details, quantity of cut and fill, locations of temporary and permanent stormwater/sediment trap basins, placement of soil stockpile and disposition areas, number of the solar panels per generating facility and output, confirmation of the number of acres of small core forest not cleared, underground electric wire detail, and final inverter design and electrical interconnection;

b. Erosion and sedimentation control plan consistent with the 2002 Connecticut Guidelines for Erosion and Sedimentation Control, as amended, including, but not limited to, seeding the site for stabilization purposes prior to installation of racking systems and panels;

c. Site clearing, grubbing, stabilization, and stormwater controls phasing plan;

d. A stormwater management plan consistent with the 2004 Connecticut Stormwater Quality Manual;

e. Plans to comply with the recommendations outlined in Department of Energy and Environmental Protection (DEEP) "Stormwater Management at Solar Farm Construction Projects" dated September 8, 2017;

f. Final protection measures and/or seasonal restriction timelines for all DEEP-identified Natural Diversity Database (NDDB) species, as recommended by DEEP;

g. Results of any soil surveys conducted on site for the Phase II Environmental Site Assessment;

h. Post-construction restoration plan; and

i. Vegetation Maintenance Plan;



- An updated DEEP NDDB review;
- 3. Provide a copy of the Emergency Response Plan to the Council and local emergency responders prior to facility operation and provide, if requested, Emergency Response training;
- 4. 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;
- 5. 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 Town of Somers;
- 6. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- 7. 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;
- 8. 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
- 9. 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 August 24, 2017, and additional information dated November 27, 2017, and December 20, 2017.

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

Sincerely,

Robert Stein Chairman

Robert SteinMAB

RS/FOC/bm

Enclosure: Staff Report dated January 18, 2018

c: The Honorable C.G. 'Bud' Knorr, Jr., First Selectman, Town of Somers Jennifer Roy, Land Use Technician/Zoning Officer, Town of Somers The Honorable Michael Ludwick, Mayor, Town of Enfield Bryan Chodkowski, Town Manager, Town of Enfield Roger J. O'Brien, Director of Planning, Town of Enfield



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Perition No. 1323
Windham Solar LLC
Bilton Solar Facilities
Somers, Connecticut
Staff Report
January 18, 2018

#### Introduction

On August 30, 2017, the Connecticut Siting Council (Council) received a petition from Windham Solar LLC (WS) for a declaratory ruling (petition) that no Certificate of Environmental Compatibility and Public Need (Certificate) is required for the proposed construction, maintenance and operation of three 2.0 megawatt (MW) alternating current (AC) and two 1.0 MW AC solar photovoltaic electric generating facilities on an approximate 43 acre parcel located at 134 Bilton Road, Somers, Connecticut.

Pursuant to Regulations of Connecticut State Agencies (RCSA) §16-50j-40, on or about August 24, 2017, WS notified Town of Somers officials, Town of Enfield officials as the municipality is within 2,500 feet, state officials and agencies, the property owner and abutting property owners of the proposed project. Additionally, although not required by law, WS published notice of its intent to submit its petition to the Council in the <u>Hartford Courant</u> on August 24, 2017.

On September 6, 2017, the Council sent correspondence to WS noting a deficiency in the completeness of the petition. Specifically, effective July 1, 2017, pursuant to Public Act 17-218, "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 Department of Energy and Environmental Protection (DEEP) in any solicitation issued prior to July 1, 2017, pursuant to section 16a-3f, 16a-3g or 16a-3j, the Department of Agriculture (DOAg) represents, in writing, to the Council that such project will not materially affect the status of such land as prime farmland or DEEP represents, in writing, to the Council that such project will not materially affect the status of land as core forest." Neither a letter from DEEP nor a letter from DOAg was submitted with the petition, but this is the first solar petition submitted after the Public Act took effect and to which the Public Act applies. The Council recommended WS either provide written correspondence from DOAg that the proposed facility will not materially affect the status of prime farmland or provide written correspondence from DEEP that the proposed facility would not materially affect the status of core forest on or before October 4, 2017 with a provision for a written request for an extension of time, or, in the alternative, WS submit the proposed project as an application for a Certificate pursuant to the provisions of Connecticut General Statutes (CGS) §16-50/.

On October 4, 2017, in response to the Council's September 6, 2017 correspondence, WS submitted a written request for a 30-day extension of time to November 3, 2017 to submit the documentation from DEEP or DOAg, which was granted by the Council. On October 26, 2017, pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act (UAPA), which requires an administrative agency to take action on a petition within 60 days of receipt, the Council set February 26, 2018 as the date by which to make a decision. February 26, 2018 is the statutorily-mandated 180-day decision deadline for this petition under CGS §4-176(i).

Council member Robert Hannon and Christina Walsh and Fred Cunliffe of the Council staff visited the site on November 7, 2017 to review this proposal. Notice of the field review was provided to officials of the Towns of Somers and Enfield, the petitioner and DEEP. Steve Broyer and Brad Wilson, representing WS, and Robin Blum of the DEEP Wildlife Division attended the field review. During the field review, Council member Robert Hannon inquired as to whether WS could reconfigure the site layout to reduce the number of



panels or relocate the panels off the west slope of the central and northern portion of the site to reduce the acreage of tree removal and construction costs associated with project development on the slope.

On November 14, 2017 and November 30, 2017, the Council issued interrogatories to WS for additional project information. WS responded to the Council's interrogatories on November 27, 2017 and December 20, 2017. The Council's first set of interrogatories requested correspondence from either DEEP or DOAg relative to the proposed facility to address the incomplete filing referred to the Council's September 6, 2017 correspondence to the Petitioner. WS's response detailed attempts at contacting/corresponding with the agencies and the lack of a response on the part of the agencies. Therefore, due to the 180-day statutory decision deadline for the petition under the UAPA, Council staff continued processing the petition. The December 20, 2017 responses from WS included a revised project layout to relocate the panels off the west slope of the central and northern portion of the site.

#### **Municipal Consultation**

On August 23, 2017, WS submitted the site plan package to Town of Somers Engineer, Jeffery Bord. WS stated that its initial conversation with the town was positive with no major issues and that any comments received from the Town of Somers would be forwarded to the Council. On October 30, 2017, the Council sent correspondence to the Towns of Somers and Enfield inviting comments on the proposed project to be submitted to the Council by November 29, 2017. To date, the Council has not received any comments from the Town of Somers or the Town of Enfield.

#### **State Agency Comments**

On October 30, 2017, the Council sent correspondence requesting comments on the proposed project from the following state agencies by November 29, 2017: 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 Construction Services (DCS); Department of Transportation (DOT); the Connecticut Airport Authority (CAA); and the State Historic Preservation Office (SHPO).

On November 27, 2017, the DPH Drinking Water Section submitted correspondence indicating the project is not within a public water supply source water area and no impacts to drinking water sources is anticipated.

No other state agencies provided written comments on the project.

#### **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 2013 Connecticut Comprehensive Energy Strategy emphasizes low- or no-emission sources of electric generation and development of more distributed generation. The proposed facility is distributed generation. Specifically, the proposed facility will contribute to fulfilling the State's Renewable Portfolio Standard as a zero emission Class I renewable energy source.

The project was selected in the state's Low and Zero Emissions Renewable Energy Credit Program (LREC/ZREC Program) that was developed as part of Public Act 11-80, "An Act Concerning the Establishment of the [DEEP] and Planning for Connecticut's Energy Future." Unfortunately, the LREC/ZREC Program is not among the competitive energy procurement programs that are exempt from Public Act 17-218.

The LREC/ZREC Program creates a market-driven bidding process for renewable energy projects ranging from rooftop solar panels to fuel cells to compete to obtain a 15-year revenue stream from the sale of renewable energy credits (RECs) to the electric utilities. It requires Eversource and the United Illuminating Company (UI) to procure Class I RECs under 15-year contracts with owners or developers of renewable energy projects in the state. The LREC/ZREC Program is designed to run for a six year period during which developers can sell electricity from qualifying projects of Class I RECs to the utilities at a fixed price for the life of the contract. At the end of the LREC/ZREC Program, Eversource and UI are required to purchase \$1.02 billion of RECs directly from customers, site owners and/or developers of clean energy projects. Of that amount, \$300 million is to be spent on LRECs, and \$720 million is to be spent on ZRECs.

WS has contracts with Eversource under the LREC/ZREC Program to sell the RECs from the three 2 MW solar facilities and the two 1 MW solar facilities, but does not yet have a contract to sell the energy or capacity. WS is pursuing a contract for energy and capacity from Eversource and the petition for that contract is currently pending before PURA under Docket No. 16-03-08RE01.

#### **Proposed Site**

WS proposes to construct the solar facility within a fenced 35-acre generally rectangular site on an approximately 64.7 acre parcel of property owned by the PLH, LLC. The property straddles Somers, Connecticut and East Longmeadow, Massachusetts. Approximately 43.3 acres is in Connecticut and 21.3 acres in Massachusetts. No component of the proposed facility would be in Massachusetts. The parcel is zoned A-1 Residential with adjacent parcels consisting of vacant and wooded land located to the west, north and south of the parcel and residences located east of the parcel. Property abutting the proposed site to the south and west is owned by the State of Connecticut Department of Corrections. A house, barn, and concrete building exist on the property and would remain on the subject parcel.

During its site search, WS investigated several properties that were for sale. The proposed site was selected due to favorable characteristics.

### **Project Description**

#### Proposed Project

The proposed solar field, made up of five separate generating facilities totaling 8.0 MW, would occupy a fenced area approximately 35 acres in size on the 43.3-acre property. Approximately nine acres east of the proposed project has been reserved for conveyance to the former and abutting property owner as a buffer. The solar field would include 28,152 solar photovoltaic modules arranged in linear rows 9.25 feet apart. The modules would be mounted to the racking system in a portrait orientation with two rows of modules per rack. WS would install five transformer/switchgear pads for each generating facility.

#### Revised Project

The revised solar field, made up of four separate generating facilities totaling 6.9 MW, was submitted in response to a suggestion made by Mr. Hannon and a Council interrogatory to minimize impacts to core forest, steep topography and construction costs. The approximate nine acre property would remain as a buffer. WS would install 24,192 solar photovoltaic modules arranged in linear rows 9.25 feet apart within a 27.3 acre fenced area. The modules would be mounted to the racking system in a landscape orientation with four rows of modules per rack. WS would install four transformer/switchgear pads for each generating facility.

#### Common Project Elements

The panels would be installed on a post driven rack support system, designed in accordance with the State Building Code, which uses aluminum framing supported by vertical steel support posts driven approximately six to eight feet into the ground. The panels would be oriented to the south at a 15 degree angle beginning three feet above ground level (agl) and extending to a height of six feet five inches agl. Consistent with the National Electric Code, a 7.5-foot high chain-link fence with two-inch mesh and several posts extending 12 feet agl to support motion activated cameras for security would be installed to enclose the solar field. A gap at the bottom of the fence for wildlife could be used; however, this would be counterintuitive if WS were to use sheep for grazing and predators enter the fenced area.

An approximate 600-foot long, 16-foot wide gravel access drive would be constructed along the south edge of the solar field from Bilton Road before turning north for a distance of approximately 1,960 feet centered in the solar field. The access road would also serve as a utility easement to connect the inverter/transformer/switchgear pads. WS is considering connecting the solar panel rows via string inverters versus centralized inverters. This design would reduce energy losses by two to three percent if WS utilizes transformers provided by Eversource to connect to the grid. The final inverter architecture would be selected once electrical engineering has commenced after permits are procured. WS would install two utility riser poles and one recloser pole along the access road near Bilton Road for the facility to interconnect with Eversource's existing overhead 23-kilovolt three-phase distribution line on Bilton Road.

The power output from each inverter would feed into a step-up transformer to increase the collected 390 volt three-phase AC output to a 23 kilovolt distribution circuit.

WS anticipates the following losses associated with the production of electricity of the solar facility:

Photovoltaic attributes	Losses in percent
Near shading	3.5
Array incidence	1.6
Soiling	3.0
Irradiance level	0.6
Temperature	2.1
Electrical shading	0.4
Quality mismatch	0.2
Light induced degradation	2.0
Omhic DC wiring	0.3
Inverter efficiency	1.5
MPP tracking system	0.6
Ohmic AC wiring	0.8
Low to medium transformer	1.1
Unavailibility	1.0
Parasitic load	0.23
TOTAL	24.33

The efficiency of the proposed facility ranges from 15 to 18 percent and decreases over time at an average rate of 0.5 percent per year.

The proposed electrical interconnection would consist of Eversource-specified metering and protection for each facility that would be done pursuant to Eversource's Guidelines for Generator Interconnection. Eversource has completed a portion of a system impact study and concluded 4.99 MW could be interconnected to the distribution system. WS and Eversource are still negotiating terms of the interconnection agreement.

Construction of the project would take four to five months and would begin in the Summer of 2018, once Project approvals are obtained. Approximately 16-20 construction vehicles would make daily trips to the site during construction. Work hours would typically be 7:30 AM to 5:30 PM, Monday through Friday and 8:00 AM to 12:00 PM, Saturday which is consistent with the Town of Somers zoning regulations.

#### **Environmental, Cultural and Scenic Values**

The portion of the property in Connecticut consists of 18.5 acres of a former orchard and 24.8 acres of forest.

The proposed project solar field area generally slopes in a westerly direction with slopes ranging from approximately four to forty percent. WS would clear 21.3 acres of woodland (six acres of small core forest and 15.7 acres of edge forest) primarily west of the access road. WS proposes to install six temporary and six permanent stormwater/sediment trap basins. Approximately 22 acres would be graded consisting of 23,380 cubic yards of cut and 20,655 cubic yards of fill of earthwork necessary for 6 temporary and 6 permanent stormwater/sediment basins and solar array placement. Any excess topsoil would be blended in on site and seeded.

The <u>revised project</u> solar field area generally slopes in a westerly direction with slopes ranging from approximately four to sixteen percent. WS would clear 7.5 acres of edge forest and eliminating the clearing of 6 acres of small core forest and 7.8 acres of edge forest. WS proposes to install six temporary and three permanent stormwater/sediment trap basins. Approximately 14.3 acres would be graded for the revised project. The cut and fill quantities were not provided but are estimated to be less as steep slopes are being avoided.

WS would file with DEEP for a General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities. WS would phase the project to ensure that earth disturbance would be five acres of soil or less at any given time during construction. Each five-acre increment will have a dedicated detention basin. The detention basin would be excavated, seeded and riprapped. Once the detention basin is blanketed or hydro-seeded, WS would then move on to the next five-acre increment. A low growth low maintenance meadow/native seed mix would be used to stabilize disturbed soils at the site. It is anticipated that the solar field would be mowed 4-5 times per year to control growth of vegetation to a height as not to impede energy production. No hazardous materials are proposed for construction or operation.

The site parcel is not within any Federal Emergency Management Agency designated flood zone. The site parcel is not within a DEEP designated aquifer protection area nor is there a DEEP designated aquifer protection area within the Town of Somers. Private water wells are located at residences near the site. Four residences are in proximity of the proposed project: one residence is approximately 120 feet south of the access road, and three residences are approximately 250, 325, and 350 feet east of the solar panels. No impacts to private drinking water wells are expected.

DEEP Natural Diversity Database (NDDB) indicates the bobolink (species of special concern) and the northern harrier (endangered species) occur on or within the vicinity of the subject parcel. WS proposes to comply with DEEP recommendations to conduct work outside the breeding season (February-July for the

northern harrier and May-August for the bobolink). WS proposes to commence construction in August which overlaps with the bobolink breeding period. WS would employ a professional to determine if said species is breeding during the month of August and if said species is breeding, then WS would comply with buffer requirements to active nesting areas. The breeding season for the bobolink and northern harrier would afford the same protection of the northern long eared bat pup season. DEEP's NDDB letter dated February 22, 2016 required a subsequent request for review if the proposed project did not commence construction within one year of the date of the letter.

The site parcel contains wetlands on the southwest corner and on the northwest perimeter of the property in Massachusetts. WS proposes to maintain a 100 foot buffer to these wetlands. WS contends that the DEEP NDDB review did not reveal the presence of threatened or endangered species that would benefit from any vernal pool, so no vernal pool study was performed. Although the proposed project is not proposed on any portion of the property in Massachusetts, a farm pond is located 100 feet beyond the project limits and state boundary and therefore it is subject to Massachusetts jurisdiction if it were a wetland or vernal pool.

The State Historic Preservation Office (SHPO) submitted correspondence to WS indicating no properties listed on the National Register of Historic Places is on the subject parcel; however, SHPO recommends a professional cultural resources assessment reconnaissance survey be completed prior to commencement of construction.

The proposed project is expected to meet the DEEP noise standards at the property boundaries.

The project would not produce air or water emissions as a result of operation. Operation of the proposed project over 45 years would result in the offset of approximately 408,278 tons of carbon dioxide. A carbon debt analysis accounting for the loss of 15.1 acres of trees in comparison to the generated solar power that displaces fossil fuel generation indicates a net carbon reduction would begin after 0.76 days of site operation. The revised project would also offer similar benefits. The solar project would not produce air emissions of regulated air pollutants or greenhouse gasses during operation.

The majority of the proposed project equipment is less than nine feet in height. Visibility of the proposed project is expected to be minimal as the topography slopes south and west away from residences and the nine acre buffer of land on the east side of the solar project would buffer views from abutting residences. The revised project would relocate solar panels to the southeast corner of the project closer to Bilton Road thereby reducing the proposed 350 foot buffer to the road to 190 feet. No landscaping is proposed.

#### **Public Safety**

The proposed project would comply with the National Electrical Code, the National Electrical Safety Code and National Fire Protection Association codes and standards. There are a number of protection devices internal to the system, there will be breakers installed in both the panelboards and the switchboards, which will protect the system in the event of a fault. On the utility side, reclosers will be installed which will detect outages and prevent the solar facilities from delivering power during any outage (anti-islanding protection). In addition, the reclosers are capable of detecting abnormal grid conditions on the utility side and will open during any event that would potentially harm the solar facility or the grid.

The entire site wold be surrounded by a 7.5 foot tall chain-link security fence. Access to the site would be via a padlocked gate in the perimeter fence at the location of the facilities' access driveway off of Bilton Road. A series of motion-sensitive video security cameras will be installed around and within the perimeter fence.

The project is approximately 1.7 miles northwest of the privately-owned Valley Farms Airport, the nearest runway of an airport. The proposed facility would not be within the defined glidepath; nonetheless, no glare

analysis was performed. The Federal Aviation Administration states "the final approach path is defined as two (2) miles from fifty (50) feet above the landing threshold using a standard three (3) degree glidepath."

The facilities are not expected to generate offsite noise, harmful glare, vibrations, or damaging emissions.

Authorized personnel visiting the project during operation will be fully licensed and properly trained on how to navigate a solar facility safely and how to quickly respond in the event of an emergency. Once operational, WS would work with local fire and law enforcement officials to ensure they have the appropriate knowledge and access to provide their services to the project.

#### Decommissioning

The project has an initial service life of 45 years. A Decommissioning Plan was submitted to the Council and has provisions for project removal and component recycling. Following the removal of project related equipment; the site would be restored and revegetated.

#### Prime Farmland

The site parcel is not part of the Public Act 490 Program nor is the site part of the State Program for the Preservation of Agricultural Land. The site property, particularly the 35 acre fenced area, contains prime farmland soils according to mapping maintained by the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS). Under Public Act 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." WS has engaged a soil scientist to determine whether the soils on site meet the definition of prime farmland.

The site was formerly used as a fruit farm. A Phase I Environmental Site Assessment (ESA) conducted at the site recommends collection of soil samples to determine the presence of organochlorine pesticides, arsenic, volatile organic compounds, total petroleum hydrocarbons and metals. WS has commenced Phase II environmental testing consistent with the recommendations of the Phase I ESA.

WS would restore landform features, vegetative cover, and hydrologic function after the closure of the facility. The process would involve replacement of topsoil and vegetation, as well as modification of site topography where necessary to bring the site back to pre-construction conditions. If any soils are determined to be compacted at levels that would affect successful revegetation, decompaction will occur. The method of decompaction will depend on how compacted the soil has become over the life of the Project. If any excavated areas remain after removal of equipment pads or access road base material, these areas will be backfilled and compacted with locally imported soil to match existing onsite soils, and a hydroseeding of a seed mix to match existing onsite groundcover. Grading activities will be limited to previously disturbed areas that require re-contouring. Efforts will be made to disturb as little of the natural drainages and existing natural vegetation that remain post-decommissioning as possible.

#### **Core Forest**

Under Public Act 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.

#### Public Act 17-218

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." Projects selected under certain competitive energy solicitations are exempt from the provisions of Public Act 17-218, but projects selected under the LREC/ZREC Program are not exempt from the provisions of Public Act 17-218.

Public Act 17-218 requires a project developer to seek a letter from DOAg <u>OR</u> DEEP. Public Act 17-218 does not provide any deadline for DOAg or DEEP to issue a letter to the Council prior to the expiration of the Council's statutory decision-making timeframe for a petition under the UAPA. Regardless, consistent with the recommendations of the Council in its September 6, 2017 correspondence and consistent with the provisions of Public Act 17-218 as written, WS requested a letter from <u>BOTH</u> DOAg and DEEP. Although both agencies had an active role in drafting the Public Act when it was proposed, to date, neither agency has developed a protocol for solar project developers to follow, neither agency has provided any comments in response to the Council's October 30, 2017 solicitation and neither agency has provided any formal response to WS.

On September 29, 2017, WS submitted a detailed letter to DEEP's Forestry Division requesting a determination as to whether the proposed project would materially affect the status of core forest and indicating that the Council had issued a deadline of October 4, 2017 to provide a response that could be extended upon request. Said extension was requested on October 4, 2017 and granted until November 4, 2017. On October 24, 2017, WS participated in a conference call with Christopher Martin, DEEP Director of Forestry, Kirsten Rigney, Legal Director for the Bureau of Energy and Technology Policy, and Robert LaFrance, DEEP Director of the Office of Law and Policy for Environmental Conservation to discuss the proposed project.

On November 14, 2017, the Council issued an interrogatory to WS inquiring about the status of the DEEP or DOAg consultations and requesting submission of any correspondence submitted to and/or received from DEEP and/or DOAg relative to the proposed facility. On the same date, WS e-mailed Mr. Martin seeking a determination from DEEP and indicating the interrogatory was issued with a deadline date to respond of November 28, 2017. Mr. Martin immediately responded to WS that Mr. LaFrance is taking the lead on this and to contact Mr. LaFrance directly. On November 15, 2017, WS e-mailed Mr. LaFrance seeking the status of DEEP's review and whether or not a determination could be provided by November 28, 2017. One week later, on November 22, 2017, Mr. LaFrance responded that DEEP will not be making the written determination by the November 28, 2017 deadline and will continue its efforts to review the request. According to WS, DEEP expected to have a protocol in place within 60 days, but DEEP could not commit to that timeframe. On November 29, 2017, WS again contacted Mr. LaFrance indicating that WS's revised site plan removes the project entirely from the core forest area. However, no response or letter has been received to date.

WS states that DEEP representatives have indicated that it would not likely consider solar development within a small core forest to be a material impact. As indicated above, UCONN CLEAR defines "small core forest" as core forest patches that are less than 250 acres. The core forest area where WS originally proposed its solar project is approximately 106.64 acres in size and of this small core forest, WS proposed to develop 3.71 acres within the small core forest area. With the revised project configuration, WS proposes to develop 0.00 acres within the small core forest area. Certainly, DEEP could not possibly determine that 0.00 acres of tree clearing in a small core forest area would materially impact the status of core forest. WS's analysis conveyed to DEEP states 3.71 acres of small core forest would be affected; however, WS's response to Council Interrogatory numbers 7 and 8 and the revised project plan states 6 acres of small core forest. Regardless, the effect to small core forest remains 0.0 acres of impact.

#### 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, 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.

Given WS's willingness to engage a soil scientist and plans to restore the site back to a natural preconstruction condition in the Decommissioning Plan, development of the project would not materially affect the status of prime farmland. In fact, DOAg has not made any determination or submitted any comments that would lead the Council to conclude otherwise.

Given WS's reconfiguration of the project layout that results in complete elimination of development within the small core forest area, development of the project would not materially affect the status of core forest. In fact, DEEP has not made any determination or submitted any comments that would lead the Council to conclude otherwise. Although on November 22, 2017 DEEP indicated to WS that a response would be provided within 60 days, that self-imposed 60-day timeframe has passed and the UAPA-mandated 180-day petition decision deadline is swiftly approaching.

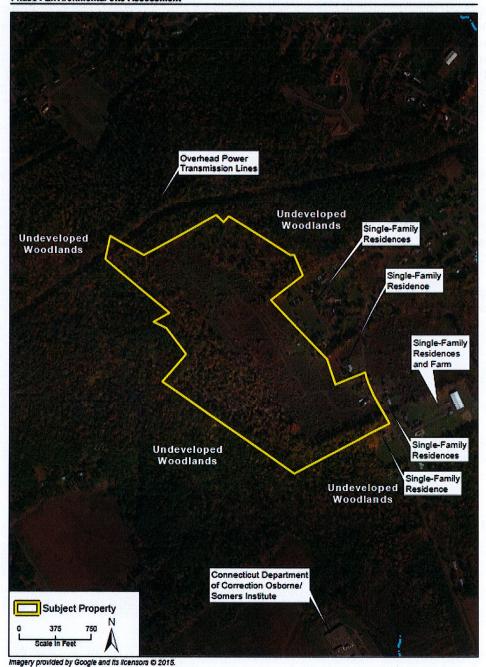
#### Recommendations

Staff recommends approval of the revised project with inclusion of the following conditions:

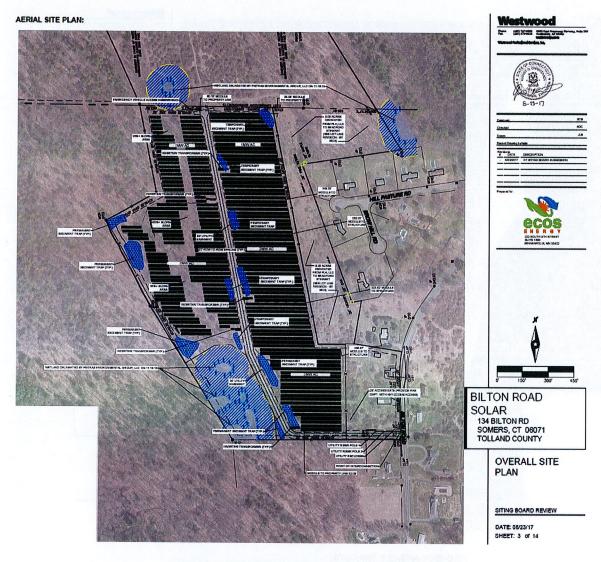
- 1. Prior to the commencement of construction, submission of a final site plan including, but not limited to, quantity of cut and fill, locations of temporary and permanent stormwater/sediment trap basins, placement and number of the solar panels per generating facility and output, confirmation of the number of acres of small core forest not cleared and final inverter design and electrical interconnection design;
- An updated Department of Energy and Environmental Protection (DEEP) Natural Diversity Database review;
- 3. Plans to comply with the recommendations outlined in DEEP's "Stormwater Management at Solar Farm Construction Projects" dated September 8, 2017.
- 4. Provide a copy of the Emergency Response Plan to the Council and local emergency responders prior to facility operation and provide, if requested, Emergency Response training; and
- 5. Approval of any minor project changes be delegated to Council Staff.

# **Site Property**

134 Bilton Road, Somers, Connecticut Phase I Environmental Site Assessment



# Proposed Site Plan



#### **PROJECT AREAS & IMPACTS:**

TOTAL SITE AREA - \$4.7 ACRES PROJECT (S.S ACRES DEDICATED)
43.3 ACRES IN THE STATE OF CONNECTICUT
213.4 ACRES IN THE STATE OF MASSACHUSETTS
ARRAY FOOTPRINT
412.8 ACRES (FULL PROJECT FENCE LINE LIMITS)

PROPOSED IMPERVIOUS: GRAVEL ACCESS ROAD, STRUCTURAL POSTS & EQUIPMENT PADS  $\Rightarrow$  0.98 ACRES

#### LEGEND:

EXISTING PROPERTY LINE

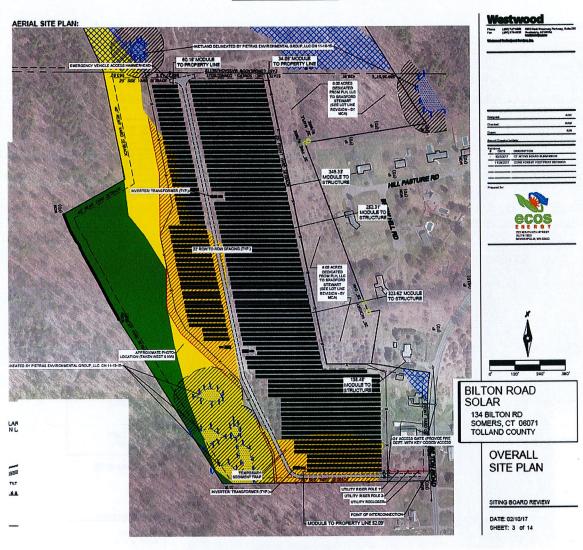
\* PROPOSED PROJECT FENCE

PROPOSED AC DISTRESHTION

18 x2 SOLAR MODULE SOCK

100' WETLAND SUFFER AREA
WETLAND DELINEATION LINE

### Revised Site Plan



PROJECT AREAS & IMPACTS:
TOTAL SITE AREA - \$4.7 ACRES PROJECT (9.8 ACRES DEDICATE)
43.3 ACRES IN THE STATE OF CONSCINCUT
21.3 ACRES IN THE STATE OF MASSACHISETTS
ARRAY FOOTPRINT 21.3 ACRES INJUL FROZE FRANCE UNEL MINTS) ING ... SMALL CORE FOREST (<250 AC) = 6.0 AC SMALL CORE FOREST (<250 AC) IMPACT = 0.0 AC

EDGE CORE - 15.3 AC

#### LEGEND:

EXISTING PROPERTY LINE
PROPOSED PROJECT FENCE
PROPOSED GRAVEL ACCESS ROAD
PROPOSED AC DISTRIBUTION 100' WETLAND BUFFER AREA
WETLAND DELINEATION LINE