



# 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](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

### CERTIFIED MAIL RETURN RECEIPT REQUESTED

August 31, 2018

Steve Broyer  
Senior Project Manager  
Ecos Energy  
222 South 9<sup>th</sup> Street, #1600  
Minneapolis, MN 55402

RE: **PETITION NO. 1137** – Windham Solar, LLC declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of five 1.0 MW Solar Photovoltaic Renewable Energy Generating facilities located at 1 Williams Crossing Road, Lebanon, Connecticut. **Request for Second Amendment.**

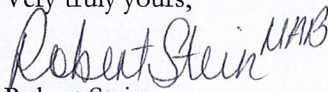
Dear Mr. Broyer:

At a public meeting held on August 30, 2018, the Connecticut Siting Council (Council) considered and made a motion to approve the second request to amend the above-referenced facility, as described in the submittal to the Council dated July 12, 2018, which motion failed due to a tie vote, resulting in a denial of the request.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction.

Enclosed for your information is a copy of the staff report on this request for a second amendment.

Very truly yours,

  
Robert Stein  
Chairman

Enclosure: Staff Report dated August 30, 2018

RS/RDM/lm

c: The Honorable Betsy Petrie, First Selectman, Town of Lebanon  
Philip Chester, AICP, Town Planner, Town of Lebanon  
Honorable Charles Grant, First Selectman, Town of Franklin  
Ronald Chalecki, Zoning Enforcement Officer, Town of Franklin  
Honorable Victor Funderburk, Mayor, Town of Windham  
Matthew Vertefeulle, Town Planner, Town of Windham  
James Rivers, Town Manager, Town of Windham







# 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](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

### Petition No. 1137

### Windham Solar LLC - Lebanon, Connecticut Second Request to Amend Declaratory Ruling

### Staff Report

August 30, 2018

### Introduction

On March 5, 2015, the Connecticut Siting Council (Council) approved a Petition filed by Windham Solar, LLC (WS) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need (Certificate) is required for the construction, operation and maintenance of a 6.1 megawatt (MW) Solar Photovoltaic Generating facility located at 1 Williams Crossing Road in Lebanon, Connecticut.

The site is located on an approximate 44-acre property located along the Lebanon-Franklin town line, west of Route 32 and south of Williams Crossing Road. The property was formerly used as a farm and contains a 2.6 acre farmstead area, consisting of several buildings and an abandoned farmhouse. Thirty-nine acres of the parcel are located in Lebanon and are zoned industrial. The remaining 4 acres of the parcel are located in Franklin and are zoned commercial, C-2.

On August 31, 2017, the Council approved a request to amend the declaratory ruling for site layout and equipment modifications. The approved amendment included an expansion of the Project footprint into the Town of Franklin portion of the parcel and a reduction in the output of the facility from 6.1 MW to 5.0 MW. At the time of the submittal of the first amendment to the declaratory ruling, WS envisioned installing additional solar modules at the site to increase the overall facility output close to the 6.1 MW rating the Council previously approved in 2015. Additional Eversource interconnection studies precluded WS from submitting detailed plans for the additional modules at the time of the first request to amend the declaratory ruling.

On July 13, 2018, WS submitted a second request to amend the declaratory ruling to the Council for an expansion of the solar array by 1.0 MW, referred to as Phase II, as previously contemplated. WS notified the Towns of Lebanon, Franklin and Windham (within 2,500 feet), state agencies, and abutting property owners of the second amended project on or about July 11, 2018. Although not required, WS published notice of the request to amend in the *Willimantic Chronicle* on July 11, 2018. As a courtesy, WS also performed outreach the Town of Lebanon Inland Wetlands Commission regarding construction activities within the Town's 100-foot wetland buffer. WS did not conduct outreach to the Town of Franklin's Inland Wetlands and Watercourses Commission because no work is proposed within the Town's 50-foot wetland buffer.

On July 17, 2018, the Council notified the Towns of Lebanon, Franklin and Windham of the second request to amend and requested that any comments be received by August 16, 2018. No comments were received.

The Council submitted interrogatories to WS on July 31, 2018. WS submitted responses to the interrogatories on August 16, 2018. Additional project information was submitted by WS on August 23, 2018.

At the request of the Town of Lebanon, Yantic River Consultants (YRC) reviewed the second amendment submittal and provided correspondence to the Lebanon Town Planner, Philip Chester, on August 27, 2018 that recommended several project design changes. After reviewing YRC's comments, WS modified the layout of the southwest portion the solar field to address these concerns. WS submitted these design modifications to the Council on August 30, 2018.





The Department of Transportation Bureau of Engineering and Construction submitted comment to the Council, dated August 8, 2018, stating that a highway encroachment permit would be required if work occurs within a state right-of-way.

### **Initial Approved Project - March 5, 2015**

The initial approved project consisted of a 22.3-acre solar field within the Town of Lebanon portion of the parcel, accessed from Williams Crossing Road along the northern property line. The solar field consisted of 20,400 solar modules and associated ground equipment, divided into six separate generating units; five 1.0 MW units and one 1.1 MW unit. After approval, WS subsequently redesigned the Project footprint and submitted the revised site layout to the Council as the First Project Amendment.

### **First Project Amendment - August 31, 2017**

The first Council-approved Project amendment included the division of the solar field area into five 1.0 MW units, each connected to a transformer/inverter pad. The arrangement of the solar modules on each panel was changed from two modules in portrait to four modules in landscape. The interconnection design was changed from a single switchgear pad in the northwest corner of the parcel to a loop system that connects all of the inverters/transformers within a 60-foot wide Eversource easement located in the central portion of the solar field. Due to the wide utility easement, the number of solar modules was reduced from 20,400 to 18,000 modules. New string inverter technology and the wide utility easement caused the Project footprint to expand eastward by 1.1 acres onto the Town of Franklin portion of the parcel, with minor changes to the west fence line. Additionally, the southern extent of the solar field area was reduced from its previously approved footprint to account for the reduction in the number of solar modules. A second access road was constructed extending west into the site from Route 32.

The Project, as modified in the first amendment, was constructed and is operational (Phase I). As part of the development, WS removed an abandoned underground storage tank in the farmstead area in accordance with Department of Energy and Environmental Protection (DEEP) procedures.

### **Proposed Second Project Amendment - July 13, 2018**

The proposed second amendment to the Project consists of a 1.0 MW expansion, thereby increasing the Project output to 6 MW, close to the 6.1 MW the Council initially approved in 2015. Approximately 3,456 new modules are proposed, consisting of a mix of 370 watt and 375 watt panels arranged in two modules in portrait layout at a 15 degree angle. There will be 24 string inverters for the expansion with 20 serving the 375 watt panels and the remaining 4 serving the 370 watt panels.

An interconnection agreement for the Phase II expansion area has been executed with Eversource. WS expects to energize the Phase II expansion in December 2018. A new Eversource transformer would be installed on-site to interconnect the facility to the electric distribution system.

To accommodate the Phase II expansion, the additional solar modules would be installed within an approximate 2.8 acre expansion area to the southwest and within the Town of Lebanon (Lebanon expansion area), and within an approximate 1.2 acre expansion area to the southeast and within the Town of Franklin (Franklin expansion area). A large portion of the Lebanon expansion area is within the initial Petition footprint and was enclosed with a perimeter fence as part of Phase I even though no solar panels were installed within this area. The existing fence line in this area would be extended by up to 90 feet to the east and by 15 feet to the south to accommodate six solar array rows and permanent stormwater control features. There would be no alteration to the western fence line.

The Lebanon expansion area would contain approximately 2,592 modules. The Franklin expansion area would contain approximately 864 modules. The aisle width between the rows of panels would be approximately 9.5 feet in both expansion areas.

The solar arrays would be supported by a concrete ballast racking system with four round ballast “tubs” per section of racking. The ballast system was selected for Phase II to avoid some of the issues using a driven post support system that were encountered during construction of Phase I where the underlying cobble and stone dominated soils slowed installation.

Consistent with the previously approved project, the expanded solar field would be enclosed by a seven-foot tall chain link fence with a six-inch wildlife passage along the lower edge. An internal fence with swing gates would separate the Phase II expansion area from the existing solar field. Fence posts would be driven into the ground or augured and backfilled with concrete depending on location.

### **Environment, Cultural and Scenic Values**

The Phase II expansion areas were previously cleared as part of past agricultural use and now contain old field and shrub areas. Two wetland areas occur in the southern portion of the site: a wetland associated with Cold Brook and an isolated wetland. The Cold Brook wetland (W1) traverses the southern extent of the property and features steep slopes to the west that become gentle towards the east. The isolated wetland (W2) has no surface water and supports a minimal diversity of wetland plants. Wetland soil indicators for W2 were found at the bottom limits of the record soil profile. The two solar field expansion areas would leave an undeveloped area between W1 and W2.

Stormwater features for the Lebanon expansion area, a swale and permanent stormwater detention basin, would be located within the proposed perimeter fence line. The proposed perimeter fence line would be approximately 25 feet from W2 at its nearest point.

Most of the perimeter fence and solar arrays in the Franklin solar field expansion area would be approximately 55 feet from the east edge of W2. The stormwater detention basin and perimeter fence at the southern extent of this expansion area would be approximately 75 feet from W1.

The ballast racking system would be installed on existing slopes, thus reducing site soil disturbance. The ballast tubs can be installed on grades up to 15 percent. Some of the ballast tubs may be leveled through the addition of gravel. Concrete would be applied to the ballast tubs on-site. A concrete washout station would be established on-site in a location determined by the contractor and in accordance with a DEEP-approved Stormwater Pollution Control Plan (SWPCP).

WS submitted a detailed SWPCP for the second amended Project to DEEP on July 3, 2018. WS would amend the SWPCP to account for the project modifications submitted to the Council on August 30, 2018. As required, the SWPCP adheres to the *2002 Connecticut Guidelines for Erosion and Sediment Control* and the 2004 Connecticut Stormwater Quality Manual. Erosion and sediment control would be accomplished through the use of perimeter silt fencing, diversion swales and sediment traps. Upon the completion of construction and site stabilization, the sediment traps would be converted to permanent stormwater detention basins. WS cannot proceed with Phase II construction without DEEP’s approval of the amended SWPCP.

WS received an updated DEEP Natural Diversity Database (NDDB) determination on June 29, 2017 during development of the first amendment to the Project, with an expiration date of June 29, 2019. The site, including the Phase II development area, is within the range of the wood turtle, a state listed Species of Special Concern. WS would adhere to DEEP’s recommended wood turtle protection measures detailed within the NDDB determination letter and would utilize all-natural fiber erosion control mats for slope

stabilization at the site. Consistent with the NDDDB determination letter, no project construction would occur within 50 feet of any streams or brooks.

Visibility of the amended project would be essentially the same as the previously approved project. No development exists in proximity to the Phase II expansion area. The Franklin expansion area abuts an active railroad. A wooded strip of land separates the railroad from Route 32, east of the site.

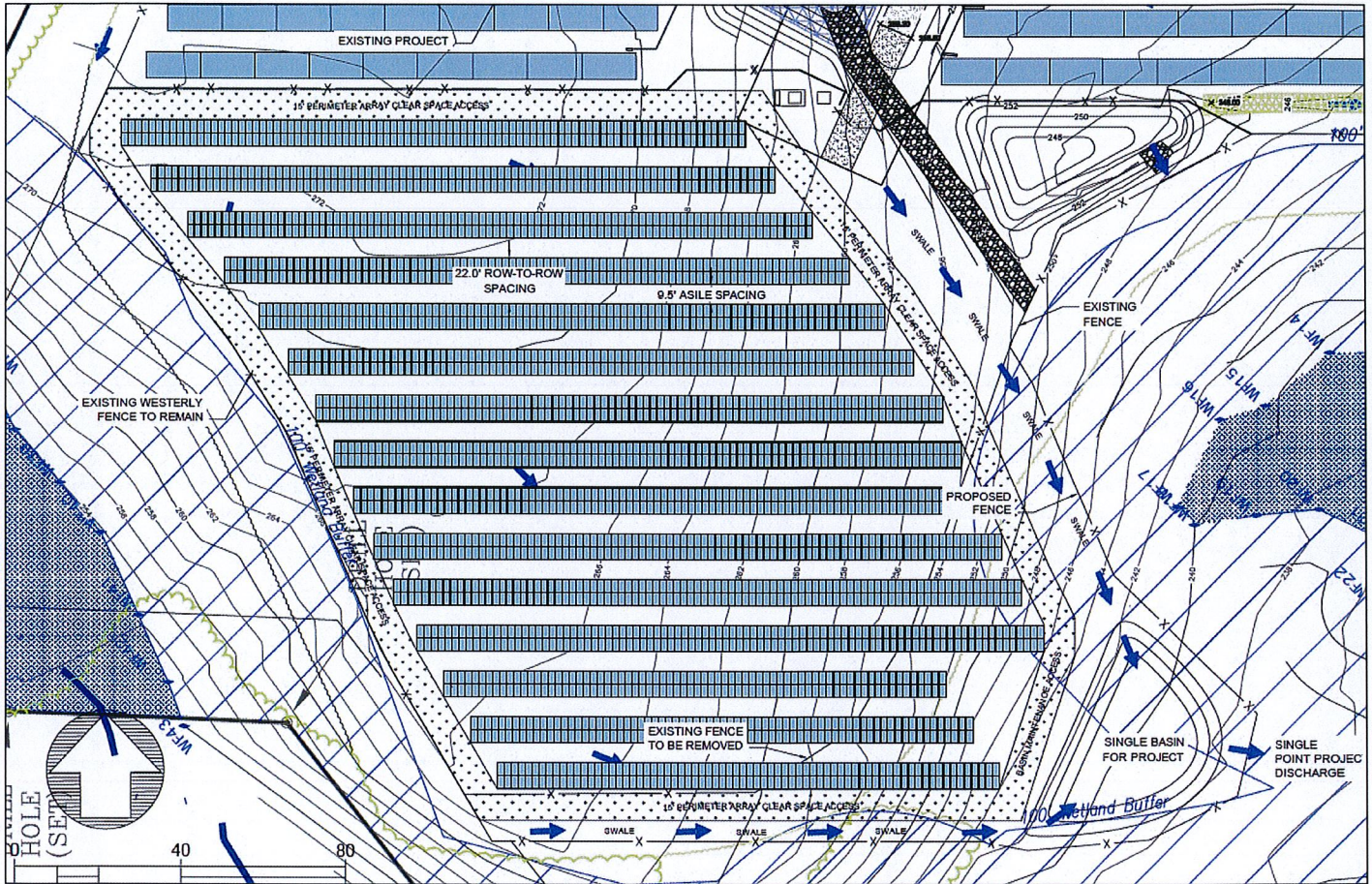
Previous historic and archeological surveys were conducted on a majority of the site parcel as part of the Phase I development. The surveys determined that the existing farmstead on the property does not meet criteria for listing within the National Register of Historic Places, and that site soils through most of the Project area were disturbed, diminishing the likelihood of archeological deposits. WS intends to demolish the dilapidated farmhouse but retain the existing chicken coop for use as Project storage. A non-historic garage building near the farmhouse would also be retained.

### **Second Amended Project Recommendations**

Staff recommends inclusion of the following conditions:

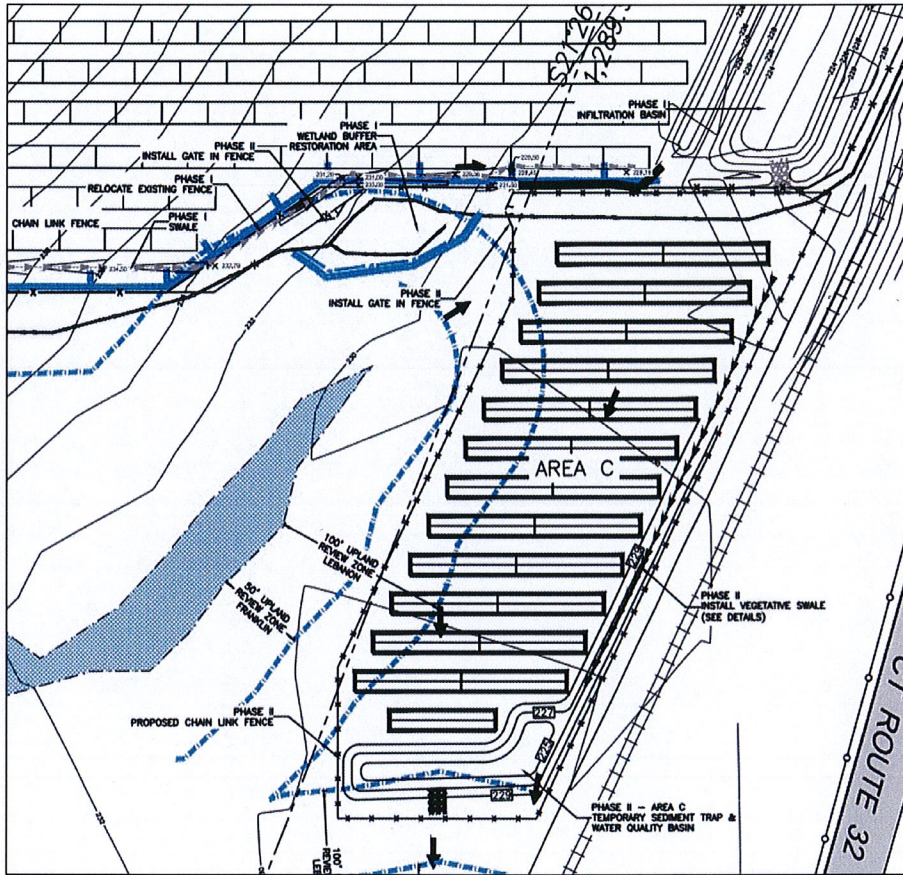
1. Implementation of DEEP recommended wood turtle protection guidelines during construction, in accordance with DEEP's letter of June 29, 2017;
2. Resolution of the DEEP Cease and Desist Order issued May 3, 2018 prior to commencement of construction;
3. Submission of a copy of the DEEP-approved updated SWPCP prior to commencement of construction; and
4. Approval of any minor project changes be delegated to Council staff.

### Second Amendment – Lebanon Expansion Area





### Second Amendment – Franklin Expansion Area



Depiction of Ballast Panel Rack System

