



# 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

June 24, 2016

Steve Broyer  
Windham Solar LLC  
c/o Ecos Energy LLC  
222 South 9<sup>th</sup> Street, Suite 1600  
Minneapolis, MN 55402

RE: **PETITION NO. 1220** - 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 and one 1.0 Megawatt Solar Photovoltaic Electric Generating facilities located at 1219 and 1240 Voluntown Road, Griswold, Connecticut.

Dear Mr. Broyer:

At a public meeting held on June 23, 2016, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal 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 site in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Griswold 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, the electrical utility interconnection design and fence design;
  - b. Review of the project areas for federally-listed species and any applicable mitigation measures;
  - c. Construction hours and days of the week/weekend;
  - d. Erosion and sedimentation control plan consistent with the *2002 Connecticut Guidelines for Erosion and Sedimentation Control*;
  - e. A stormwater management plan consistent with the *2004 Connecticut Stormwater Quality Manual*;
  - f. Final landscaping plan that mitigates visual impacts to nearby neighborhoods; and
  - g. SHPO determination;
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 Town of Griswold;
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 March 15, 2016 and additional information dated April 18, 2016, May 8, 2016, and June 10, 2016.

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

Very truly yours,



Robert Stein  
Chairman

RS/MP/lm

Enclosure: Staff Report dated June 23, 2016

- c: The Honorable Kevin A. Skulczyck, First Selectman, Town of Griswold  
Mario J. Tristany, Jr, Town Planner, Town of Griswold  
Michael Melone, Windham solar LLC, c/o Allco Renewable Energy Limited



# 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. 1220**  
**Windham Solar LLC**  
**1219 and 1240 Voluntown Road, Griswold**  
**Staff Report**  
**June 23, 2016**

### Introduction

On March 21, 2016, Windham Solar LLC (WS or Petitioner) submitted a petition to the Connecticut Siting Council (Council) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need (Certificate) is required for the construction, operation and maintenance of a 7.0 megawatt (MW) alternating current (AC) solar photovoltaic generating facility located at 1219 and 1240 Voluntown Road in Griswold, Connecticut. Council member James J. Murphy, Jr. and Michael Perrone of the Council staff visited the site on April 20, 2016 to review this proposal. Steve Broyer from WS; Michael Melone, Vice President and General Counsel, Allco Renewable Energy Limited; Mario Tristany, Jr., Town Planner, Office of Planning and Community Development, Town of Griswold; James Barnie, Commission Member, Economic Development Commission, Town of Griswold; Lauren Churchill, Inland Wetlands and Watercourses Conservation Commission & Aquifer Protection Agency, Town of Griswold; Janice Steinhagen, Staff Writer, Hartford Courant; representative from The Bulletin; and the following residents: Megan McGory; Carolyn Yapchanyk; Pat Peterson; Kevin Franklin; Walter Held; John and Erika Rogers; Dan Mackin; and Benicia Perry also attended the field review.

### Municipal Consultation

The Petitioner initially consulted with the Town of Griswold planning staff to see that the project is as consistent as possible with local setback and siting requirements and would be a positive addition for Griswold. On or about March 15, 2016, the Petitioner formally notified the Town of Griswold and other State and local officials and abutting property owners of the proposed project.

To date, the Council has not received any written comments from abutters. However, by letter dated April 20, 2016, Mario Tristany, Jr., Town Planner for Griswold, notes that the Griswold Office of Planning and Community Development has received several calls and visits from the residents of the Latham Drive neighborhood that is located west of the proposed solar project proposed for 1219 Voluntown Road. Furthermore, Council staff notes that the majority of residents that attended the field review were present at the 1219 Voluntown Road site (i.e. the western site near Latham Drive). Mr. Tristany notes that the main objection is the proposed clear cutting of the existing significant tree line located directly east of Latham Drive and the tree line that buffers the properties off of Lee Avenue and Lewis Avenue. Mr. Tristany believes that a substantial portion of the subject tree line could be left in place by shifting the western solar array further east and closer to the designated wetland area. Mr. Tristany notes that the originally proposed 150-foot wetland setback could be reduced to 75 or 100 feet and still provide more than adequate protection to the inland wetland area that is east of the solar array. The April 20, 2016 letter includes a drawing with recommendations to maintain a 30-foot existing tree line buffer on the far western limits of the project (near Latham Drive) along with maintaining an existing tree line and adding screening along Culver Road.



CONNECTICUT SITING COUNCIL  
Affirmative Action / Equal Opportunity Employer

WS has modified its Overall Site Plan (OSP) to accommodate the concerns of the residents and the Town of Griswold and provided its most up to date OSP dated June 6, 2016.

### **Public Benefit**

The project would be a “grid-side distributed resources” facility, as defined in Connecticut General Statutes (CGS) § 16-1(a)(37). 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.

### **Proposed Site**

The project would be located on two different properties on Voluntown Road (Route 138). The western property is an approximately 32.7-acre parcel owned by PLH, LLC and located south of Route 138 and east of Latham Drive at 1219 Voluntown Road. The eastern property is an approximately 17.4-acre parcel owned by PLH, LLC and located north of Route 138 and west of Hopeville Road (Route 201) at 1240 Voluntown Road. The total combined area of both parcels is 50.1 acres, and both parcels are zoned C-1 Village Commercial District.

The western parcel is largely wooded and undeveloped except for a clearing in the southwestern portion of the parcel. The eastern parcel is cleared on the western side and wooded on most of the eastern side, except for the southeastern corner. The total existing cleared area of approximately 10.5 acres (taking into account both sites) was previously cleared and tilled for agricultural use.

The western parcel has residences located directly to the west and also to the north, on the opposite side of Route 138. To the south and east of that parcel is largely undeveloped and wooded. The eastern parcel has residences located to the north on the opposite side of the Culver Road, residences to the east on the opposite side of Hopeville Road, and residences to the south on the opposite side of Route 138. To the west of this parcel is also residential.

### **Proposed Project**

The solar field would include a total of 26,910 solar photovoltaic modules on fixed rack systems oriented to the south and 7.0 MW of AC electrical output. These solar panels would be tilted on an angle of 15 degrees with the horizontal. The solar panels would reach a maximum height of about 6-foot 5-inches above ground level (agl) at the top edge and about three feet agl on the bottom edge. The project racking would be designed for snow and wind loading per a structural engineer duly licensed in Connecticut.

The solar rack posts are H-beams which would be driven into the ground. An alternative grouted foundation would be designed if subsurface boulders or ledge is encountered and used on an as needed basis. The amounts of cut and fill are expected to roughly balance. No net cut or net fill is expected.

According to WS’ most updated OSP dated June 6, 2016, the solar project has four arrays or portions. On the eastern parcel, WS has Project 1 and Project 2 identified on the OSP. Project 1 is a 1.0 MW AC array with 4,032 modules and is located on the western portion of this parcel. Project 2 is a 2.0 MW AC array with 7,974 modules and is located on the eastern portion of this parcel.

WS labeled two arrays on the western parcel as Future 1 and Future 2 on the OSP. Future 1 is a 2.0 MW AC array with 8,316 modules and located on the eastern portion of this parcel. Future 2 is a 2.0 MW AC array with 6,588 modules and located on the western portion of this parcel.

Collectively, these solar arrays would have three points of interconnection with Eversource's existing overhead three-phase distribution line that runs parallel to Voluntown Road. One point of interconnection would be associated with the eastern parcel or Project 1 and Project 2. For the western parcel, the array identified as Future 1 would have its own electrical interconnection. Likewise, the array identified as Future 2 would have its own electrical interconnection. Each interconnection is expected to have three poles located near Route 138, subject to the final design in consultation with Eversource. Staff suggests including a condition that the final electric utility interconnection design be included in the D&M Plan.

WS has received confirmation from Eversource that the local electrical distribution system can support the 3.0 MW AC interconnection associated with these two arrays at 1240 Voluntown Road. However, Eversource is still investigating whether the 4 MW AC interconnection from the western parcel (at 1219 Voluntown Road) can be supported by the distribution system. Specifically, Eversource is reviewing this part of the project in 2 MW intervals.

Eversource will determine the feasibility of accepting 2 MW from Future 1 first and then Future 2 after. While the expected timing of the results of these studies is not known, if approved, staff suggests that WS be given the option of filing a partial Development and Management Plan (D&M Plan), if desired. For example, WS could file the D&M Plan for Project 1 and Project 2 first and file a separate D&M Plan for Future 1 and/or Future 2 later, or file all at once depending on the timing of its development versus its determinations from Eversource.

The project (at both sites) would include a seven-foot tall chain link security fence with two-inch mesh and without barbed wire. WS evaluated a one-inch mesh fence, but found that the cost is nearly double that of the two-inch mesh fence. WS does not believe that a smaller mesh would provide sufficient added security value for the project to justify the incremental cost. If approved, staff recommends that the final fence design be included in the D&M Plan.

The project on the western parcel would have new gravel access from Latham Drive approximately 15 feet wide and roughly 432 feet long. The eastern parcel would have new gravel access from Voluntown Road approximately 15 feet wide and 448 feet long.

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

The solar panels total about 28.9 acres in area and are all located in uplands. Site development would require the clearing of 21.4 acres of trees to support the project footprint and to minimize shading losses. The tree clearing would be phased per the requirements of the DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities.

The Petitioner has performed a carbon debt analysis. While the loss of trees necessarily reduces carbon capturing ability, the carbon dioxide emissions reductions due to the solar power displacing more traditional generation (which includes fossil-fueled generation) results in a very rapid "carbon payback" of approximately 1.23 days of full energy production. The calculation was based on the originally proposed clearing area of 20.8 acres. The most up to date proposed clearing area is 21.4 acres. However, Council staff notes that this would have a negligible effect on the carbon debt payback period. Overall, operation of the proposed project would very rapidly result in a net reduction in carbon dioxide emissions for the environment.

WS had a Phase I Environmental Site Assessment performed. The report found that there is potential for the soil to have been impacted by the former agricultural use of organochlorine pesticides (OCP) at the 1219 Voluntown Road site. In order to confirm or deny the presence of OCP-impacted soil on the subject property, Rincon (WS's environmental consultant) recommends conducting soil sampling in the areas formerly used for agricultural purposes. WS believes that there would be a negligible risk to any construction or maintenance personnel working on the site, no one would be living at the site, and no drinking water wells are proposed at the site. As such, WS does not believe that a further assessment is warranted.

With respect to the possible farmland value of the two parcels to be developed for solar facilities, the Connecticut Department of Agriculture has not purchased any development rights for the proposed project as part of the State Program for the Preservation of Agricultural Land. WS owns all of the development rights on the parcels. Notwithstanding, WS quantified the impact area of the proposed project on Prime Farmland and/or Farmland of Statewide Importance. The results are listed below. Council staff notes that P1, P2, F1, and F2, refer to Project 1, Project 2, Future 1, and Future 2, respectively.

| Project # | Soil Type | Designation                      | Impact Area (AC) | % Project Footprint |
|-----------|-----------|----------------------------------|------------------|---------------------|
| P1 & P2   | 38C       | Farmland of statewide importance | 8.16             | 66.8%               |
| P1 & P2   | 45B       | Prime farmland                   | 0.38             | 3.1%                |
| P1 & P2   | 73C       | Not prime farmland               | 3.22             | 26.4%               |
| P1 & P2   | 60B       | Prime farmland                   | 0.46             | 3.8%                |
| F1        | 38C       | Farmland of statewide importance | 9.83             | 96.8%               |
| F1        | 23A       | Prime farmland                   | 0.32             | 3.2%                |
| F2        | 34A       | Prime farmland                   | 3.63             | 50.1%               |
| F2        | 34B       | Prime farmland                   | 3.52             | 48.6%               |
| F2        | 38E       | Not prime farmland               | 0.1              | 1.4%                |

A preliminary stormwater modeling report was prepared by Westwood, WS' consultant and included in the Petition. In that report, Westwood notes that the stormwater discharge rates under the proposed conditions would be less than or equal to those under the existing conditions. While the site plan has changed slightly since the original Petition filing, staff recommends including a condition that the final stormwater management plan consistent with the *2004 Connecticut Stormwater Quality Manual* be provided in the D&M Plan.

WS submitted a preliminary erosion and sedimentation control plan (E&S Control Plan) for the eastern parcel which contains Project 1 and Project 2. Staff recommends that the final E&S Control Plan be provided in the D&M Plan.

A Decommissioning Plan was included in the Petition and has provisions for project removal after a service life of up to 45 years.

The project would have no adverse environmental effect to air or water quality. The solar project would not produce air emissions of regulated air pollutants or greenhouse gasses during operation. In addition, the project is not located within a DEEP-designated Aquifer Protection Area. The entire project area is also located outside of the 100-year and 500-year flood zones.

There are a total of three wetlands in proximity to the proposed project. On the western parcel, a wetland is located between the Future 1 and Future 2 arrays. With the shift of the Future 2 array to the east (as recommended by the Town) to mitigate visual impacts, it would still have a wetland buffer of approximately 67 feet from the nearest fencepost to the western limits of this wetland.

There is another wetland to the east of the Future 1 array. The proposed project would have a wetland buffer of about 105 feet as measured from the eastern fence line of the Future 1 array to the western limits of this wetland. No clearing or grading would occur within either wetland. The proposed project is not expected to significantly impact the functions and values of either wetland at the 1219 Voluntown Road site.

With respect to the eastern site at 1240 Voluntown Road, there is one wetland located at the far western limits of this parcel. The closest (or shortest) wetland buffer for the proposed project is approximately 49 feet, as measured from the western fence line of Project 1 to the eastern limits of the wetland. No clearing or grading within this wetland is proposed. Similarly, the proposed project is not expected to significantly impact the functions and values of the wetland at the 1240 Voluntown Road site.

Highland Soils LLC performed a field survey on March 16, 2016. No vernal pool habitat was noted at either site. No suitable areas of ponded surface water were noted, and no evidence of obligate amphibian species were found on the subject parcels.

By letter dated December 11, 2015, the Connecticut Department of Energy and Environmental Protection (DEEP) stated that negative impacts to State-listed species are not expected as a result of the proposed project.

WS contracted the services of an environmental consulting firm that employs qualified natural resource specialists to assist with the site development and the evaluation of potential project impacts to federally-listed species. Such analysis is being performed and would include mitigation plans to protect such species, as applicable. These efforts are currently underway, and an initial desktop analysis completed on or before June 24, 2016 would be provided to the Council. Staff recommends that the final review of the project areas for federally-listed species and any applicable mitigation measures be included in the D&M Plan.

The Petitioner applied to the State Historic Preservation Office (SHPO) for review of the project on February 9, 2016. To date, a response from SHPO has not been received. Staff recommends that the final SHPO determination be provided in the D&M Plan.

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

There are roughly four homes located adjacent to the western site and south of Latham Drive. For the originally proposed project, the nearest home would have been approximately 100 feet to the west of the closest solar panel. With the roughly 30-foot shift to east for the Future 2 array (as recommended by the Town), the nearest home would be approximately 130 feet to the west of the nearest solar panel.

There are approximately four homes located to the north of Culver Road, in the vicinity of the eastern site at 1240 Voluntown Road and approximately one home to the east of the site on the eastern side of Hopeville Road. The closest home to the eastern project is on Hopeville Road and located approximately 166 feet to the east of the eastern fence line of Project 2.

In an effort to be responsive to the Town's and residents' concerns about tree buffers and visibility, WS proposes to plant 10-gallon American Arborvitae, which range between four to five feet in height at initial planting. Fully grown, they could reach 10 to 20 feet high and four to six feet wide at maturity. The plantings would be staggered in two rows with an approximate spacing of about five

feet center to center. These plantings are proposed for the western edge of the Future 2 array, near Latham Drive and also along the northern edge of Project 2, near Culver Road. While these plantings would not extend along the entire length of Culver Road, the northeastern corner of this site has a substantial existing tree buffer that would be maintained, and the proposed arborvitae would compensate for the existing clearing at the site. Overall, Council staff believes that this is a reasonable approach to mitigate visual impacts in the most sensitive areas of the project.

### **Conclusion**

The Petitioner contends that pursuant to CGS § 16-50k(a), the Siting Council shall approve by declaratory ruling the construction or location of “any customer-side distributed resources project or facility or grid-side distributed resources project or facility with a capacity of not more than sixty-five megawatts, as long as such project meets air and water quality standards of the Department of Energy and Environmental Protection.” The proposed project meets these criteria. The proposed project will not produce air emissions, will not utilize water to produce electricity, was designed to minimize wetland impacts, and furthers the State’s energy policy by developing and utilizing renewable energy resources and distributed energy resources. In addition, as demonstrated above, the proposed project will not have a substantial adverse environmental effect.

### **Recommendations**

Staff recommends inclusion of the following conditions:

- The Petitioner shall prepare a Development and Management Plan (D&M) for this site in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Griswold 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, the electrical utility interconnection design and fence design;
  - b) Review of the project areas for federally-listed species and any applicable mitigation measures;
  - c) Construction hours and days of the week/weekend;
  - d) Erosion and sedimentation control plan consistent with the *2002 Connecticut Guidelines for Erosion and Sedimentation Control*;
  - e) A stormwater management plan consistent with the *2004 Connecticut Stormwater Quality Manual*;
  - f) Final landscaping plan that mitigates visual impacts to nearby neighborhoods; and
  - g) SHPO determination.





