



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

www.ct.gov/csc

July 8, 2016

Scott W. Jezek, Esq.
31 Williams F. Palmer Road
P.O. Box 376
Moodus, CT 06469

RE: **PETITION NO. 1215** – Shagbark Lumber and Farm Supplies, Inc. petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed construction, maintenance and operation of a 1.6 Megawatt Solar Photovoltaic Electric Generating facility located at 21 Mount Parnassus Road, a/k/a Route 434, East Haddam, Connecticut.
Development & Management Plan.

Dear Attorney Jezek:

At a public meeting of the Connecticut Siting Council (Council) held on July 7, 2016, the Council considered and approved the Development and Management (D&M) Plan submitted for this project on June 1, 2016 with the following conditions:

1. Approval of requested significant changes to the approved D&M Plan be delegated to Council staff in accordance with Section 16-50j-62(b) of the Regulations of Connecticut State Agencies. In accordance with that section, if advance written notice is impractical, SLFS shall provide verbal notice of the changes and shall submit written specifications to the Council within 48 hours after the verbal notice;
2. The Eastern Box Turtle Protection Plan shall be implemented as specified in Appendix E of the Natural Resource Assessment dated January 16, 2016;
3. Use of off-road construction equipment that meets the latest EPA or California Air Resources Board standards, or in the alternative, equipment with the best available controls on diesel emissions, including, but not limited to, retrofitting with diesel oxidation catalysts, particulate filters and use of ultra-low sulfur fuel; and
4. Compliance with the provisions of Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies that limit the idling of mobile sources to 3 minutes.

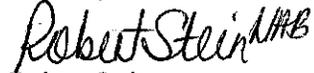
This approval applies only to the D&M Plan submitted on June 1, 2016 and supplemental data dated June 13, 2016 and June 28, 2016. Requests for any changes to the D&M Plan shall be approved by Council staff in accordance with Regulations of Connecticut State Agencies Section (RCSA) §16-50j-62(b). Furthermore, the project developer is responsible for reporting requirements pursuant to RCSA 16-50j-62.

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 February 1, 2016 and in the D&M Plan dated June 1, 2016.

Enclosed is a copy of the staff report on this D&M Plan, dated July 7, 2016.

Thank you for your attention and cooperation.

Sincerely,

Handwritten signature of Robert Stein in black ink, with the initials 'MAB' written in the upper right corner of the signature.

Robert Stein
Chairman

RS/MP/lm

Enclosure: Staff Report dated July 7, 2016

- c: The Honorable Mark B. Walter, First Selectman, Town of East Haddam
- Cary H. Brownell, Chm, Planning and Zoning Comm, Town of East Haddam
- Randy Dill, Chairman, East Haddam Inland Wetlands Commission
- Julia Leonardo, Shagbark Lumber and Farm Supplies, Inc.
- Thomas Wemyss, PurePoint Energy



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Petition No. 1215

Shagbark Lumber and Farm Supplies, Inc.

21 Mount Parnassus Road (Route 434), East Haddam

Development and Management Plan

Staff Report

July 7, 2016

On March 3, 2016, the Connecticut Siting Council (Council) issued a Declaratory Ruling to Shagbark Lumber and Farm Supplies, Inc. (SLFS) that no Certificate of Environmental Compatibility and Public Need is required for the construction, maintenance, and operation of a 1.2 megawatt (MW) alternating current (AC) solar photovoltaic generating facility located at 21 Mount Parnassus Road (Route 434) in East Haddam, Connecticut. As required by the Council's decision of this petition, SLFS submitted a Development and Management (D&M) Plan for the project on June 1, 2016. Copies of the D&M Plan were provided to the Town of East Haddam on or about June 1, 2016. No comments have been received to date.

The project is located on the south-central 10.5 acres of the approximately 124-acre parcel owned by Bud and Bobby, LLC and currently hosts SLFS. The site is located in an industrial zone, IG District (IG-7). Approximately 100-acres of the subject parcel is currently maintained in agriculture for haying and an additional five acres for beef cattle and horse pastures. The remaining acreage consists of a lumberyard, feed and grain store, hardware store operation and conservation easement.

The solar field will include a total of 5,080 solar photovoltaic modules (with 50 inverters) on fixed rack systems oriented to the south. There will be two rack-mounted arrays located to the east and west (respectively) of an existing wetland (#3A). These panels will be tilted on an angle of 20 degrees with the horizontal. SLFS will also construct four lumber ports to support solar panels. These lumber ports will have dimensions of 97.5 feet by 20 feet, 117 feet by 20 feet, 136.5 feet by 20 feet, and 136.5 feet by 40 feet. The solar panels on top of the lumber ports will reach a maximum height of approximately 16 feet above grade. The rack-mounted panels will reach a maximum height of approximately 15 feet above grade.

The project will interconnect with Eversource's existing overhead 23-kilovolt three-phase distribution line that runs parallel to Mount Parnassus Road (on the south side of the road). At least three utility poles will be installed on the subject property. SLFS included the electrical interconnection design in the D&M Plan as specified in the Council's Decision. Electrical interconnection equipment will be located on the eastern side of the northern-most lumber port. This is subject to Eversource's final interconnection design requirements.

The project will include a six-foot tall security fence with two-inch mesh and without barbed wire. The Petitioner will utilize an approximately 600-foot long existing access road to the lumber yard from Mount Parnassus Road to access the beginning of a proposed 12-foot wide by 760 feet of gravel access roads and turn-around for the solar facility. The existing access is processed aggregate and will not require any upgrades.

The solar panels total about 6 acres in area and are all located in uplands. Given that much of the site is already clear, site development will require the clearing of 1.9 acres of trees (or less than a third of the total solar panel area) to support the project footprint and also to minimize shading losses.

The solar rack posts will be driven into the ground. Approximately 2,400 cubic yards of cut and approximately 1,900 cubic yards of fill will be required to grade the project.



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A final erosion and sedimentation control plan consistent with the *2002 Connecticut Guidelines for Erosion and Sedimentation Control* was provided. SLFS will utilize 12-inch Filtrexx Soxx and also filter fabric silt fence (Mirafi Envirofence or equivalent). The filter fabric silt fence will provide additional protection for erosion and sedimentation in the event that the Filtrexx Soxx are inadvertently disturbed during construction. It will also serve as a highly visible barrier to the site contractor to control any unintentional incursions of construction equipment beyond the designated work area.

There are four wetlands in proximity to the project. Wetland 1 is situated east and north of the site. This wetland is isolated and will be rehabilitated as a bio-retention basin consistent with the Stormwater Quality Management Plan. Wetland 2 is located to the north of the site in the vicinity of the Eversource easement and is predominately the drainage area to Succor Brook. Wetland 3A is located in the center of the site and separates the two solar rack-mounted solar arrays. Wetland 4 is located southeast of the eastern panel array.

Amphibian and reptile surveys were conducted on September 17, 2015, October 10, 2015, and October 21, 2015. Two vernal pool species, the wood frog and the spotted salamander were observed in the study area. This indicates the presence of a nearby vernal pool. A likely cryptic vernal pool was identified in the study area. This potential vernal pool is located within Wetland 2 and is approximately 623 feet north of the project area, and it consists of an old excavated pond with a stone dam located within the reaches of the Succor Brook. The other wetlands do not have a suitable hydrologic regime to support breeding by vernal pool species.

In the Council's Decision, a vernal pool analysis was requested because the vernal pool surveys needed to be completed in the spring as opposed to the fall. Accordingly, SLFS had such surveys performed. The D&M Plan includes a letter dated May 31, 2016 from Davison Environmental regarding vernal pools at the subject property. A site visit was conducted on March 31, 2016. This work included inspection of the previously identified potential vernal pool as well as other wetlands located adjacent to the project area. A total of six spotted salamander egg masses were observed on the site. The spotted salamander is a vernal pool indicator species. These egg masses were located at the approximate location (within 100 feet) of the previously identified vernal pool as shown on the Vernal Pool Analysis Map. The egg masses observed were located in the margins of Succor Brook. This breeding site does not represent a true vernal pool due to the fact that breeding is occurring within the margins of a perennial stream. While it is uncommon to see eggs deposited in the margins of large streams and rivers, survivorship is low under such dynamic flow conditions. The likely source population for this marginal breeding area is the large wetland along Daniels Road to the northeast. No other wetlands on the site were found to support vernal pool species. Thus, no significant vernal pool habitat is located in the vicinity of the project, and the project is not expected to have a negative impact on vernal pool wildlife.

By letter dated January 24, 2016, DEEP has determined that the proposed project will not have any adverse impacts on federal or state-listed species if best management practices and protection plans are followed for the eastern box turtle. DEEP also notes that, by having a stormwater management plan in place, it will prevent any degradation to Succor Brook. Council staff notes that the Petitioner's Natural Resource Assessment in the Petition contains an Eastern Box Turtle Protection Plan. Staff suggests including a condition that the Eastern Box Turtle Protection Plan be implemented as specified in the Natural Resource Assessment.

A stormwater management plan has been developed by Nemergut Consulting in accordance with the *2004 Connecticut Stormwater Quality Manual*. The stormwater management plan is designed to prevent degradation of downstream waters from stormwater runoff. The project stormwater design maintains the pre-construction and post-construction drainage flows into Wetland 3A and Wetland 2 as approximately equal. For Wetland 3A, this was accomplished by selecting and restricting the number of panel arrays draining into it. Surface runoff from panel arrays in excess of that number were directed at the proposed detention/bioretention basin

discharging to Wetland 2. Post-construction flow to Wetland 2 was made to replicate pre-construction flows by the design of the retention basin and its outlet structure.

The primary purpose of the "Grassed Swale Section" on Sheet 2 of 2 of the D&M Plan is for the conveyance of stormwater. A secondary (but important) purpose is for the bio-infiltration of storm runoff. The Council inquired about the possibility of utilizing the HydroTurf product. SLFS's consultant noted that while the "HydroTurf" product from ACF Environmental seems to have high values for longevity and erosion control, it does not appear to allow for the infiltration of stormwater or for providing any amount of nutrient reduction as the proposed grass swale/turf reinforcement mat that has been designed will. For these reasons, SLFS will utilize the proposed swale design that appears on the D&M Plan site plan.

Visibility of the project at residences located directly on the opposite (i.e. south) side of Route 434 is not expected to be significant due to the existing trees on the north side of Route 434 and existing SLFS buildings. Visibility at residences located west of the site (on Route 151) is also not expected to be significant due to existing buildings at the lumber yard and trees located west of the site. There is some potential for visibility from the Mather and Ventres properties located on the north side of Route 434 and possibly a few residential properties on the south side of Route 434, located southeast of the project. Accordingly, the Petitioner will, at a minimum, install landscape plantings southeast of the project area to minimize the visual impacts from these areas.

As required by the Council's Decision, SLFS has provided the response from the State Historic Preservation Office (SHPO) in the D&M Plan. By letter dated March 31, 2016, SHPO notes that, "The project area is situated on well-drained soils surrounded by wetlands and unnamed streams. This type of environmental setting tends to be associated with pre-contact Native American settlement. We are therefore requesting that a professional cultural resources assessment and reconnaissance survey be completed prior to construction."

The proposed construction schedule will be the same as the Shagbark lumberyard hours. Accordingly, the schedule will vary according to the season. In the summer months (i.e. from present until the end of daylight savings time), the proposed schedule will be Monday through Friday at 7:00 a.m. to 6:00 p.m. In the winter months (i.e. from the end of daylight savings time to the beginning of daylight savings time), the proposed schedule will be Monday through Friday 7:00 a.m. to 5:00 p.m. SLFS expects that construction will commence August 1, 2016 and will be completed by January 30, 2017. Any noise related to construction will be exempt per DEEP noise regulations. Operation of the (completed) project is expected to meet the DEEP noise standards at the property boundaries.

All of the D&M Plan requirements set forth in the Council's Decision for Petition No. 1215 are in compliance; therefore, Council staff recommends approval with the following conditions:

- a) Approval of requested significant changes to the approved D&M Plan be delegated to Council staff in accordance with Section 16-50j-62(b) of the Regulations of Connecticut State Agencies. In accordance with that section, if advance written notice is impractical, SLFS shall provide verbal notice of the changes and shall submit written specifications to the Council within 48 hours after the verbal notice;
- b) The Eastern Box Turtle Protection Plan shall be implemented as specified in Appendix E of the Natural Resource Assessment dated January 16, 2016;
- c) Use of off-road construction equipment that meets the latest EPA or California Air Resources Board standards, or in the alternative, equipment with the best available controls on diesel emissions, including, but not limited to, retrofitting with diesel oxidation catalysts, particulate filters and use of ultra-low sulfur fuel; and
- d) Compliance with the provisions of Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies that limit the idling of mobile sources to 3 minutes.