STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL
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VIA ELECTRONIC MAIL

February 8, 2016

Scott W. Jezek, Esq.
Law Office of Scott W. Jezek
31 William 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.

Dear Attorney Jezek:

The Connecticut Siting Council (Council) requests your responses to the enclosed questions no later than February 22, 2016. To help expedite the Council's review, please file individual responses as soon as they are available.

Please forward an original and 15 copies to this office, as well as a copy via electronic mail. In accordance with the State Solid Waste Management Plan, the Council is requesting that all filings be submitted on recyclable paper, primarily regular weight white office paper. Please avoid using heavy stock paper, colored paper, and metal or plastic binders and separators. Fewer copies of bulk material may be provided as appropriate.

Any request for an extension of time to submit responses to interrogatories shall be submitted to the Council in writing pursuant to §16-50j-22a of the Regulations of Connecticut State Agencies.

Yours very truly,

Melanie A. Bachman
Acting Executive Director

MB/MP/lm

c: Council Members

Petition No. 1215
Interrogatories
Set One
February 8, 2016

1. Please submit an abutters map identifying each parcel owner, including but not limited to, the individuals listed in Exhibit 4 of the petition.

2. Please provide proof of service for the following notice requirement: for petitions submitted pursuant to Conn. Gen. Stat. §16-50k(a), the Regulations of Connecticut State Agencies (R.C.S.A) §16-50j-40(a) requires that the same entities and individuals delineated under Conn. Gen. Stat. §16-50*l*(b) for an application receive notice of the filing of the petition. Council staff notes that the chief elected officer, planning and zoning commission, inland wetland and watercourse commission, and land use administrator of the Town of East Haddam have been provided notice.

3. On page one of Shagbark Lumber and Farm Supplies, Inc.'s (SLFS or Petitioner) petition (Petition) received on February 2, 2016, SLFS notes that the proposed photovoltaic facility's power output would be up to 1.6 megawatts (MW). Is this output direct current (DC) or alternating current (AC)? Do the Sunny Tripower 24000TL-US inverters have an AC power output of 24 kilowatts (kW) each? If so, would a total of 50 inverters at 24 kW each equal 1.2 MW of AC power output for the project? Also, if yes, where would the remaining 0.4 MW (or 400 kW) of power come from to reach the worst-case total of 1.6 MW? Or is the 0.4 MW a "reserve" to allow for minor modifications to the site plans and addition of other panels in the future?

4. Provide the specifications sheet for the Sunny Tripower 24000TL-US inverters.

5. Under Tab 8, indicates that "twenty-seven (50) SMA Sunny Tripower…" inverters would be used. Is that a typographical error and 50 is intended?

6. On page six of the Petition, SLFS notes that approximately 5,080 solar modules are proposed. Approximately how many watts are each module? The wattage would be DC unless otherwise specified.

7. Provide the specification sheet for the proposed solar photovoltaic panels.

8. How many kilowatts (AC) of existing solar photovoltaic power does the Petitioner have on the subject property? Would that remain an independent (or "stand alone') solar facility and not be connected to the proposed solar facility?

9. In general, in the case of fixed solar panels, does orienting your solar panels to the south provide a sort of balance (in terms of sun exposure) between the sun rising in the east and setting in the west and ultimately result in optimizing (or attempting to maximize) your total annual energy production (in kilowatt-hours) and your capacity factor? Is it correct to say that the objective of the project, as proposed, is to maximize annual energy production in kilowatt-hours for economic and environmental benefits (e.g. reducing carbon emissions by causing traditional generation including fossil-fueled plants to "ramp down" as renewable power is added to the grid) as opposed to a solar plant designed for peak load shaving?

10. Would all of the power produced go to the grid or would any be for internal use?

11. Estimate the amounts of cut and fill in cubic yards.

12. The proposed 12-foot wide gravel access drive does not appear to reach Mount Parnassaus Route (Route 434). In Drawing Sheet 1, the proposed access only loops around the northern portion of Wetland 3A. Would the Petitioner utilize the existing access to the lumber yard and then continue along the proposed gravel access to reach the solar facility? Approximately how long (in feet) is the existing access route, and would it require any upgrades such as gravel to make it suitable for the construction and maintenance of this proposed solar facility?

13. Provide the carbon debt payback period. Specifically, as an estimate, you may utilize the U.S. Environmental Protection Agency (EPA) number of 1.22 metric tons of carbon dioxide sequestered by one acre of average U.S. forest in one year. That number can be multiplied by the number of acres of trees to be cleared to estimate the annual loss of carbon dioxide sequestration in metric tons per year for the project. Then the total projected annual electrical production in kilowatt-hours for the solar facility can be multiplied by the EPA estimate of 6.89551×10^{-4} metric tons of carbon dioxide displaced per kilowatt-hour in order to provide the annual carbon dioxide emissions avoided by the operation of solar plant. Based on this or a different analysis, compute the number of months or years it would take to "break even" with carbon dioxide or when the carbon dioxide emissions reductions would equal the sequestration loss. (Data source: http://www.epa.gov/energy/ghg-equivalencies-calculator-calculations-and-references)

14. On page 7, SLFS notes that, "At the end of the operational life of the Project, the Petitioner will remove all equipment (e.g. racking systems, panels, inverters, electrical collection systems, etc.) from the site." Approximately how many years is the operational life of the facility? Provide a decommissioning plan to summarize the plans to remove equipment and restore the site after the operational life has been reached and/or the project is removed from service.

15. Approximately what size mesh does SLFS anticipate utilizing for the chain link fence? While 2-inch mesh is a common size, would SLFS consider utilizing a mesh size less than two inches as an anti-climbing measure? Would the fence have barbed wire?

16. According to page 8, would the three new utility poles be on the subject property? Estimate the height of such poles, if known. Provide a site plan identifying the electrical interconnection equipment, utility pole locations and tie-in with Eversource's grid.

17. According to page 13, the "top" of the solar panels would reach approximately 16 feet above grade. Approximately how many feet above grade would the bottom edges of the solar panels be?

18. Has the Petitioner received a response from the State Historic Preservation Office? If yes, provide a copy of such correspondence.

19. Has the Petitioner received a formal response from the Connecticut Department of Energy and Environmental Protection (DEEP) regarding the Natural Diversity Database? (See page 11 of the Natural Resource Assessment of the Petition.)

20. Is the project located within an acquifer protection area?

21. Provide a Federal Emergency Management Agency flood zone map that includes the subject property.

22. Please provide the Federal Aviation Administration determination if it is available at this time.

23. Approximately how many homes are located within a 1,000-foot radius of the center of the project? Where is the nearest off-site residence located? Provide the distance, direction, and address of such off-site residence.

24. Would the proposed project meet the applicable Department of Energy and Environmental Protection noise standards at the property boundaries? (Sources of noise might include but not be limited to inverters, transformers, etc.)

25. Pages 12 and 13 of the Petition note that, "The nearest sensitive receptors to the Project were determined to be the existing three residential houses on the north side of Route 434. The Project will include the planting of select evergreen species along the northern limits to minimize the visual impact to these properties." Are these houses located to the north or south of the project area? If they are located to the south of the project area, would the trees be planted along the southern limits of the project?