STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
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VIA ELECTRONIC MAIL

October 1, 2020

Lee D. Hoffman, Esq.
Pullman & Comley, LLC
90 State House Square
Hartford, CT 06103-3702

RE: **PETITION NO. 1426** - East Windsor Solar One, LLC petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 4.9-megawatt AC solar photovoltaic electric generating facility located west of the Ellington town boundary at 341 East Road, East Windsor, and associated electrical interconnection.

Dear Attorney Hoffman:

The Connecticut Siting Council (Council) requests your responses to the enclosed questions no later than October 23, 2020. To help expedite the Council's review, please file individual responses as soon as they are available. At this time, consistent with the Council's policy to prevent the spread of Coronavirus, please submit an electronic copy only to siting.council@ct.gov. However, please be advised that the Council may later request one or more hard copies for records retention purposes.

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.

Sincerely,

s/ Melanie A. Bachman

Melanie Bachman
Executive Director

MB/CW

c: William Herchel, East Windsor Solar One, LLC
Bryan Fitzgerald, East Windsor Solar One, LLC

Petition No. 1426
East Windsor Solar One, LLC

Interrogatories - Set One
October 2, 2020

Project Development

1. If the project is approved, identify all permits necessary for construction and operation and which entity will hold the permit(s).

2. Referencing page 5 of the Petition, East Windsor Solar One, LLC (Petitioner) states that, "Alternatively, in the event virtual net metering capacity becomes available, the Project may deliver energy to certain eligible recipients through the Eversource's Virtual Net Metering Rider… or any successor rider thereto." As an update, what is the status of the availability of virtual net metering capacity for this project? Would the project be viable based on the market-based tariff if virtual net metering is not available?

3. Would the petitioner participate in the ISO-NE Forward Capacity Auction? If yes, which auction(s) and capacity commitment period(s)?

Proposed Site

4. In the lease agreement with the landowner, are there any provisions related to decommissioning or site restoration at the end of the project's useful life? If so, please describe and/or provide any such provisions.

5. Is the site parcel, or any portion thereof, part of the Public Act 490 Program? If so, how does the municipal land use code classify the parcel? How would the project affect the use classification?

6. Has the State of Connecticut Department of Agriculture (DOAg) purchased any development rights for the project site or any portion of the project site as part of the State Program for the Preservation of Agricultural Land?

7. Referencing the September 16, 2020 letter from DOAg, page 2, second paragraph, DOAg references multiple considerations for the proposed agricultural co-use of rotational sheep grazing on the site. Please respond to such considerations as noted by DOAg.

8. Is any portion of the site currently in productive agricultural use? If so, how many acres and is it used by the property owner or is it leased to a third party?

9. Would all components of the solar photovoltaic panels be recyclable? Could components of panels be reused to make photovoltaic cells or whole panels be used to make new solar panels at the end of the life of this project? Could the solar panels and/or associated components be repurposed for a different use or product?

10. Provide the distance, direction and address of the nearest property line and nearest off-site residence from the solar field perimeter fence.

Energy Output

11. Have electrical loss assumptions been factored into the output of the facility? What is the output (MW AC) at the point of interconnection?

12. Is the project being designed to accommodate a potential future battery storage system? If so, please indicate the anticipated size of the system, where it may be located on the site, and the impact it may have on the ZREC contract.

13. Would the impact of soft or hard shading reduce the energy production of the proposed project? If so, was this included in the proposed project's capacity factor?

14. Could the project be designed to serve as a microgrid?

15. If one section of the solar array experiences electrical problems causing the section to shut down, could other sections of the system still operate and transmit power to the grid?

16. Do solar facilities present a challenge for the independent system operator for balancing loads and generation (to maintain the system frequency) due to the changing (but not controlled) megawatt output of a solar facility? What technology or operational protocols could be employed to mitigate any challenges?

Site Components and Solar Equipment

17. Would the panels be mounted in a portrait or landscape fashion? How many panels would each rack hold?

18. Provide the dimensions of the transformer and inverter pads.

19. What is the length of the driven posts and to what depth would the posts be driven into the ground to provide the required structural stability?

20. Is the wiring from the panels to the inverters installed on the racking? If wiring is external, how would it be protected from potential damage from weather exposure, vegetation maintenance, or animals including sheep?

21. Referencing Sheets SP-1 and SP-2, could the proposed 17.2-foot aisle width be reduced to decrease the project footprint? What is the minimum aisle width at which the solar panel rows could be installed?

22. Can the petitioner install higher wattage solar panels at the site to allow a reduction in the overall footprint of the project? Explain.

Interconnection

23. Is a System Impact Study from the electric distribution utility required for the interconnection process? Does the Petitioner have an Interconnection Agreement and with whom? Provide the status of such studies and agreements.

24. Is the project interconnection required to be reviewed by ISO-NE?

25. What is the line voltage of the electrical interconnection?

26. Confirm the number of utility poles required for the interconnection. What would be the height of these poles? Did the petitioner consider installing an underground run with risers to the existing pole? What would be the increased cost to run the interconnection underground?

27. Is the existing distribution three-phase or would it have to be upgraded from single-phase to three-phase?

Public Safety

28. Would the project comply with the National Electrical Code, the National Electrical Safety Code and any applicable National Fire Protection Association (NFPA) codes and standards, including, but not limited to, NFPA Code Section 11.12.3?

29. Where and what is the nearest federally-obligated airport? Petition page 45, states that based on the determination of No Hazard to Air Navigation, a glare analysis is not required. Which of the FAA determinations provided in Appendix G of Exhibit B provides for this?

30. With regard to emergency response:
    a. Is outreach and/or training necessary for local emergency responders in the event of a fire or other emergency at the site?
    b. How would site access be ensured for emergency responders?
    c. In the event of a brush or electrical fire, how would the Petitioner mitigate potential electric hazards that could be encountered by emergency response personnel?
    d. Could the entire facility be shut down and de-energized in the event of a fire? If so, how?

Environmental

31. The Greenhouse Gas (GHG) Assessment in Appendix M of Council Petition No. 1352 compared the life cycle GHG emissions from a solar project to a scenario where the solar project is avoided and an equivalent amount of natural gas-fired electric generation operated for the estimated life of the solar facility. For the proposed project, how would the net GHG emissions (or reduction) over the life of the solar facility and carbon debt payback be affected under this natural gas-fired generation versus proposed solar generation scenario.

32. What is the nearest distance between the proposed limits of disturbance and the property boundary?

33. Could the facility be moved further south and/or east to increase the distance to the nearby roads?

34. Could landscaping and/or privacy slats be installed on any portion the western boundary of the facility?

35. Regarding Prime Farmland Soils on the parcel:
    a. Provide (in acres) the amount of Prime Farmland soil currently in agricultural production; and
    b. Provide (in acres) the amount of Prime Farmland soil currently in agricultural production that would be occupied by the project.

36. Please describe the similarities and differences between the solar grazing practices planned for the proposed project from the practices described in the article "Solar grazing: How sheep mow the lawn at community solar projects in upstate NY" (https://www.newyorkupstate.com/news/2019/09/solar-grazing-how-sheep-mow-the-lawn-at-community-solar-farms-in-upstate-ny-video.html

37. Are there any wells on the site or in the vicinity of the site? If so, how would the petitioner protect the wells and/or water quality from construction impacts?

38. Would any fuels be stored on site during construction? If so, provide fuel storage/spill prevention control details.

39. What effect would runoff from the drip edge of each row of solar panels have on the site drainage patterns? Would channelization below the drip edge be expected? If not, why not?

40. What is the municipal setback regulation from wetlands for East Windsor and Ellington?

41. Would the proposed project be consistent with the 2015 U.S. Army Corps of Engineers Vernal Pool Best Management Practices?

42. Petition page 35 references three vernal pools; however, the Environmental Report references one vernal pool. Please clarify.

43. Where is the nearest parcel used for publicly accessible recreational purposes? Describe the visibility of the proposed project from this parcel.

44. Please submit photographic site documentation with notations linked to the site plans or a detailed aerial image that identify locations of site-specific and representative site features. The submission should include photographs of the site from public road(s) or publicly accessible area(s) as well as Site-specific locations depicting site features including, but not necessarily limited to, the following locations as applicable:

    For each photo, please indicate the photo viewpoint direction and stake or flag the locations of site-specific and representative site features. Site-specific and representative site features include, but are not limited to, as applicable:
    1. wetlands, watercourses and vernal pools;
    2. forest/forest edge areas;
    3. agricultural soil areas;
    4. sloping terrain;
    5. proposed stormwater control features;
    6. nearest residences;
    7. Site access and interior access road(s);
    8. utility pads/electrical interconnection(s);
    9. clearing limits/property lines;
    10. mitigation areas; and

11. any other noteworthy features relative to the Project.

A photolog graphic must accompany the submission, using a site plan or a detailed aerial image, depicting each numbered photograph for reference. For each photo, indicate the photo location number and viewpoint direction, and clearly identify the locations of site-specific and representative site features show (e.g., physical staking/flagging or other means of marking the subject area).

The submission shall be delivered electronically in a legible portable document format (PDF) with a maximum file size of <20MB. If necessary, multiple files may be submitted and clearly marked in terms of sequence.

Facility Construction

45. Has the petitioner submitted an application for a Stormwater Permit from the Department of Energy and Environmental Protection (DEEP)?

46. Has the petitioner met with the DEEP Stormwater Division? Please describe any recommendations, comments or concerns about the project provided by the Stormwater Division.

47. Are solar panels and access roads proposed to be located in the stormwater basin? If so, why are they placed there?

48. If solar panels and access roads are proposed to be located in the stormwater basin, what is the potential effects of accumulated basin water on the rack posts and access road? How would the basin be periodically cleaned out and maintained? Would use of the access road result in additional accumulation of sediments in that basin?

49. The map provided in the Site and Exploration Location Plan in the Stormwater Report shows a solar array layout that is different from the site plan drawings provided in the petition. Does the Stormwater Report accurately reflect proper stormwater management from the layout depicted in the drawing sheets?

50. Has the petitioner consulted with the DEEP Dam Safety program regarding permitting requirements, if any, for the proposed stormwater basin?

51. How would the posts (that support the racking system) be driven into the ground? In the event that ledge is encountered, what methods would be utilized for installation?

52. What is the minimum road width required for post-construction use?

53. Has a comprehensive geotechnical study been completed for the site to determine if site conditions support the overall Project design? If so, summarize the results. If not, has the Petitioner anticipated and designed the Project with assumed subsurface conditions? What are these assumed conditions?

54. Regarding the construction sequence, during what time of year would each sequence ideally occur? Does this account for possible seasonal construction restrictions due to the presence of protected species?

55. Provide the estimated typical construction hours and days of the week.

Maintenance Questions

56. Describe the type and frequency of anticipated vegetation management for the site. Include areas inside and outside of the perimeter fence, as well as detention basins and swales.

57. Would the installed solar panels require regular cleaning or other, similar, maintenance? If so, describe cleaning procedures including substances used. Would this maintenance activity have any impacts to water quality?

58. Would the petitioner store any replacement modules on-site in the event solar panels are damaged or are not functioning properly? If so, where? How would damaged panels be detected?