



Lee D. Hoffman
90 State House Square
Hartford, CT 06103-3702
p 860 424 4315
f 860 424 4370
lhoffman@pullcom.com
www.pullcom.com

March 15, 2023

VIA ELECTRONIC MAIL AND HAND DELIVERY

Melanie Bachman
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Petition 1555 - Petition of Earthlight Technologies for a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need is Required for the Proposed Construction, Operation and Maintenance of a ±1.9 MW AC Ground-mounted Solar Photovoltaic Electric Facility Located at 1 Hamilton Road in Windsor Locks, Connecticut

Dear Ms. Bachman:

I am writing on behalf of my client, Earthlight Technologies (“Earthlight”), in connection with the above-referenced Petition. With this letter, I am enclosing the original and fifteen copies of the Responses to the Interrogatories issued by the Council on February 8, 2023.

Should you have any questions concerning this submittal, please contact me at your convenience. I certify that copies of this submittal have been submitted to all parties on the Petition’s Service List as of this date.

Sincerely,

Lee D. Hoffman

Enclosures

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

Earthlight Technologies Petition for a Declaratory Ruling, Pursuant to Connecticut General Statutes §4-176 and §16-50k, for the Proposed Construction, Maintenance and Operation of a 1.9-Megawatt AC Solar Photovoltaic Electric Generating Facility located at Collins Aerospace, 1 Hamilton Road, Windsor Locks, Connecticut and associated electrical interconnection.

Petition No. 1555

March 15, 2023

Earthlight Technologies (“Petitioner” or “Earthlight”), hereby submits the following responses to the Interrogatories that were directed to Earthlight Technologies by the Connecticut Siting Council on February 8, 2023.

Project Development

1. What is the estimated cost of the project?

The project is estimated to cost between \$7.5-8 million dollars

2. Is the project, or any portion of the project, proposed to be undertaken by state departments, institutions or agencies, or to be funded in whole or in part by the state through any contract or grant?

No.

3. Have any of the Towns (Windsor, Windsor Locks, East Granby) and/or any abutters provided comments since the Petition was submitted? If yes, summarize the comments and how these comments were addressed.

No comments have been received.

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

It is anticipated that in addition to an approval by the Siting Council of this Petition, the Project will require a General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities ("Construction General Permit"), which will be issued by the

Connecticut Department of Energy and Environmental Protection (“CTDEEP”). It is anticipated that this permit will be held by Hamilton Sunstrand d/b/a Collins Aerospace. The Project will also require local building and electrical permits, which the selected general contractor is anticipated to secure in the future.

Proposed Site

5. **In the lease agreement with the property owner, 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.**

This Project is sited on land to be owned and operated in perpetuity by Collins Aerospace and accordingly, no lease agreement is necessary. Earthlight is a developer/contractor permitting, developing and constructing the Project on behalf of the eventual Project owner, Collins Aerospace.

6. **Referring to Petition p. 17 and Figure 12, provide more information regarding the designations in the Legend.**

A revised AOC Remedial Status Map, dated April 2013, is enclosed herewith as Exhibit A and should be considered to supersede Figure 12. The Legend items from this map and Figure 12 are as follows:

- Green – “NO FURTHER ACTION” – No further Phase II RCRA Facility Investigation (RFI) action is necessary. Phase II RFI activities are complete, and no further Corrective Action activities are planned
- Orange – “REQUIRES REMEDIATION AND/OR CONTROLS” – This includes April 2010 Phase II RFI Work Plan Investigation Areas – Future investigative plans are required for these areas to further quantify remedial efforts following EPA review and approval of the Corrective Measures Study
- Blue – these areas from Figure 12 have been updated to either Green or Orange on the April 2013 map

7. **Referring to Petition p. 17, Figure 12 and Appendix I – Public Outreach, portions of the host parcel and proposed facility site are part of a DEEP RCRA Corrective Action and Property Transfer Program. Has Earthlight Technologies contacted the LEP responsible for the remediation as recommended by DEEP? Has the DEEP Remediation Division provided any further recommendations on the site layout?**

Collins Aerospace contacted the responsible LEP directly to evaluate the submission. Based on internal reviews with the LEP, no further action or review was warranted with CTDEEP.

8. **Referring to Appendix I – Public Outreach, has Earthlight Technologies confirmed that the site layout does not interfere with ongoing remediation efforts? Explain.**

The site location was reviewed with the Site's remediation LEP and Raytheon Remediation Manager and the proposed location of the installation was specifically chosen so as to not interfere with ongoing remediation efforts. Raytheon is the parent company of Collins Aerospace and manages remediation. An AOC map, dated April 2013, with the proposed solar array and work limits overlaid, has been enclosed herewith as Exhibit A.

Energy Output

9. **Is the project being designed to accommodate a potential future battery storage system? If so, indicate the anticipated size of the system, where it may be located on the site, and the impact it may have on Project power purchase agreements.**

No battery storage system is currently contemplated for this site. Depending on state programs encouraging battery storage systems in the future, the site plan could be amended to accommodate such systems.

10. **What is the anticipated capacity factor of the project? Would the capacity of the system decline over time? If so, estimate annual losses.**

The anticipated capacity factor for the Project is 17.5%. The capacity of the system is anticipated to decline over time, at a rate of approximately 0.25% per year.

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

It is unclear at this time whether the Project will be participating in the ISO-NE Forward Capacity Auction. The Project reserves the right to participate in the Forward Capacity Auction in the future, however, as of this writing, the Project has no capacity commitments.

12. **Referencing Petition p. 11, does the Petitioner have a contract to sell the electricity and renewable energy certificates (RECs) it expects to generate with the proposed project? If so, to which public utility? If the electricity is to be sold to more than one public utility, provide the percentage to be sold to each public utility.**

The Petitioner has no contracts to sell the electricity or the RECs at this time. It is anticipated that all of the energy generated from this Project will be used at the time of generation or will be net metered against future use at the site by Collins Aerospace.

13. **Referencing Petition p. 6, approximately what percentage of the power output would be used by Collins Aerospace for its manufacturing needs on an annual basis?**

The intent is to use most, if not all, of the power produced by the solar facility for Collins Aerospace's facility onsite. However, there may be times when a small portion of the power is exported to optimize efficiencies. This can be achieved through net metering.

Site Components and Solar Equipment

14. **What is the approximate size of the ballasts supporting the solar panels in the northern array area?**

It is anticipated that the ballasts will be precast concrete sections, which are approximately 4 feet by 4 feet by 18 inches each. Final structural design and the sizing of the ballasts and all foundation systems will be determined at the time of completion of final electrical plans and specifications.

15. **Referencing Petition Appendix C, lighting within the solar array is mentioned. Provide more information on the solar array lighting system.**

New lighting will not be installed within the proposed solar array or as part of this Project. Existing lighting within the Collins Aerospace facility will remain. Section 5.1 of the Project O&M Plan (Petition Appendix C) has been revised accordingly and is enclosed herewith for reference.

Interconnection

16. **What is the line voltage of the proposed electrical interconnection?**

The line voltage of the proposed electrical interconnection is 600V-AC wye secondary.

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

The interconnection for the Project is not required to be reviewed by ISO-NE. As discussed in the response to Interrogatory 19, the interconnection agreement for the Project has been executed with Eversource.

18. **Referencing Petition pp. 7-8 and Figure 2, provide more information on the potential underground collection route. Where is the interconnection point?**

It is anticipated that the underground collection route will exit the northernmost solar array and head approximately 1,500 linear feet to the north trenched within existing pavement. The interconnection point is proposed to be an existing underground electric vault, which connects to an onsite substation. The Proposed Project Layout (Petition Figure 2) has been revised accordingly and is enclosed herewith as Exhibit B.

19. **Referencing Petition p. 8, what is the status of the interconnection application with Eversource?**

The interconnection agreement was executed by the Project on December 8, 2022 and was executed by Eversource on January 19, 2023.

20. **Referencing Petition p. 11, provide more information as to how the facility will improve the reliability of Windsor Locks' electrical grid.**

Because the Project will be producing the bulk of its electricity in the summer months when there is a regional peak load, it is anticipated that the Project will be able to power some or all of the operations at the Collins facility directly. This will mean that the electricity that would otherwise be consumed from the grid by Collins will be available for other users in Windsor Locks.

Public Safety

21. **Would the project comply with the Connecticut State Building Code - 2022, National Electrical Code, the National Electrical Safety Code and any applicable National Fire Protection Association codes and standards including, but not limited to, NFPA Code Section 11.12.3?**

Yes. The Project will comply with these codes and all applicable codes and standards.

22. **Referencing Petition p. 8, by what methods can the facility be de-energized in the event of an emergency?**

It is anticipated that there will be disconnecting combiner boxes at each array inside the fence, which shall be mounted to the back of the racking.

23. **Referencing Petition p. 8, how would the mutual aid agreement between Collins Aerospace and the Town of Windsor Locks be modified to include the facility?**

The mutual aid agreement is a tripartite relationship between the Town of Windsor Locks, the Connecticut Airport Authority and Collins Aerospace. The Project will not impact the mutual aid agreement. The Town, Collins Aerospace, and the Airport Authority will work together to provide emergency response training related to the Project.

24. **Would the Petitioner conduct outreach/training to local emergency responders in the event of a fire or other emergency at the site?**

Yes. The Petitioner will contact local emergency responders to offer training and information regarding the Project that will be useful to emergency response personnel in the event of a fire or other emergency at the site.

Facility Construction

25. **Referencing Petition p. 9, what are the cut and fills for the project? If there is excess cut, where will the material be disposed of?**

It is anticipated that approximately 600 CY of cut and 50 CY of fill are required to construct the Project, and that this excess material will be used primarily to fill in and shape the cleared and grubbed tree removal area. If any material remains after those efforts, the material will be used elsewhere within the Collins Aerospace facility and no material is expected to leave the site.

26. **Would the southwest and southeast solar field areas require site grading? Provide more information regarding existing slopes and proposed slopes.**

It is not anticipated at this time that any regrading efforts will be required within the solar array aside from reshaping the landscape following tree and stump removal. Existing slopes within the currently forested areas of the proposed solar array are generally flat, ranging in slope between 0 and 10%. Only the northwesternmost point of the southwestern solar array exhibits existing grades reaching the 18% maximum, which should still be considered as within the tolerable slope limits for fixed-tilt racking installation. Proposed slopes will match existing slopes.

27. **Referencing Petition p. 20, what Project areas have slopes approaching 18 percent? What work is planned in these areas? What additional erosion and sedimentation control measures would be undertaken in steep slope areas?**

Only the northwesternmost point of the southwestern solar array exhibits existing grades reaching the 18% maximum, which should still be considered as within the tolerable slope limits for fixed-tilt racking installation. Work in this area will consist of tree and stump removal, racking installation, and trenching. This area will be protected by the installation of a downstream sediment trap. The construction sequence (as shown on Appendix A - Site Plan Sheet C-4.0) also proposes that the cleared area be seeded and allowed to vegetate through a growing season prior to the installation of any electrical components. This strategy has been discussed with CTDEEP on other recent construction projects and employed successfully.

28. **Submit photographs of the proposed solar facility site construction area with descriptive captions and/or a map identifying the locations of the photographs.**

A photo log exhibit has been created, which depicts photographs of the proposed solar facility area with an accompanying photo location map. This log is enclosed herewith as Exhibit C.

29. **Referencing Petition Appendix L, were any provisions developed for the management of subsurface materials that may have been affected by manufacturing activities?**

Manufacturing activities have never been conducted in the designated Project areas. Collins Aerospace also routinely conducts soil subsurface sampling and testing in accordance with state and federal guidelines.

Environmental

30. Referencing Petition p. 19, what is the status of the sand barren habitat report?

Dr. Steven Johnson, a biologist with SWCA, who is knowledgeable about sand barren habitat has been engaged to provide this report. As of the date of this response, Dr. Johnson has investigated the Project area, consulted with Dawn McKay and Bill Moorhead of CTDEEP Wildlife Division, and prepared a draft sand barren conservation and mitigation plan, dated February 24, 2023, for review by CTDEEP Wildlife Division in the event that sand barren species are found. The Project intends to have Dr. Johnson revisit the Site during the blooming season this year to confirm that no sand barren species are present at the Site. Until that can be confirmed, the Project will act as though it is possible that such species are present and follow a conservation and mitigation plan once such a plan is approved by CTDEEP. A copy of the draft plan is enclosed herewith as Exhibit D.

31. Referencing Petition p. 19, what specific conservation measures for the Eastern pond mussel have been incorporated into the site design?

In accordance with the considerations provided by CTDEEP Wildlife Division's Final Determination dated March 17, 2022, the following measures have been incorporated into the site design:

- Water quality treatment is being provided through installation of the permanent stormwater infiltration basins;
- No increases in impervious surfaces are proposed within 100 feet of any wetlands or watercourses;
- A *de minimis* amount of impervious surface, including possible incorporation of equipment pads with concrete bases, is proposed as part of the Project, and the Petitioner is willing to utilize seeding with pollinator mix; and
- The limits of work areas will be delineated with silt fence and no work shall take place outside of these limits. This will help prevent and minimize the introduction and spread of invasive plants and bivalves.

32. The Petition site plans specify a solar farm seed mix for the southern solar arrays. The Operations and Maintenance Plan references grass vegetation at the site. Submit a specification sheet for the proposed solar array seed mix.

The Petitioner proposes the following seed mix but respectfully requests that the Siting Council make it a condition of approval to submit a final seed mix, as the final selected seed mix will depend upon the selected site contractor, their preferred manufacturers, and the availability and pricing of various seed mixes at the time of construction. At this point in the development of the Project, the seed mix is anticipated to be comprised of:

- 40% Creeping Red Fescue
- 30% Hard Fescue
- 10% Chewings Fescue
- 10% Kentucky Bluegrass
- 10% White Clover (pollinator species)

33. **The DEEP Natural Diversity Database (NDDDB) letter dated March 17, 2022 recommends that turf grass not be used within the solar array areas. Would the Petitioner be willing to seed the southern array areas with a pollinator mix? If yes, submit a pollinator seed mix specification sheet.**

The Petitioner proposes the following seed mix but respectfully requests that the Siting Council make it a condition of approval to submit a final seed mix, as the final selected seed mix will depend upon the selected site contractor, their preferred manufacturers, and the availability and pricing of various seed mixes at the time of construction. At this point in the development of the Project, the seed mix is anticipated to be comprised of:

- 40% Creeping Red Fescue
- 30% Hard Fescue
- 10% Chewings Fescue
- 10% Kentucky Bluegrass
- 10% White Clover (pollinator species)

34. **Referencing the DEEP NDDDB letter, how would Earthlight Technologies provide wildlife habitat and allow for connectivity of wildlife movement?**

The detail for Chain Link Fence on Site Plans Sheet C-5.1 has been revised to include a 6” gap below the lowest tension wire for wildlife crossing. The solar panels are raised off the ground and will be vegetated below throughout the lifespan of the Project, which will assist in maintaining connectivity and habitat. Revised Site Plans are included with these interrogatory responses.

35. **Identify the amount of tree clearing for each of the array areas.**

The approximate acreage of tree clearing proposed for the Project by array area is:

- Northern paved array: +/- 0.5 acres
- Southwestern grass array: +/- 1.9 acres
- Southeastern grass array: +/- 1.1 acres

36. **Due to tree clearing at the site, was an assessment conducted for the northern long-eared bat, a federally and state-listed endangered species? Explain.**

No assessment for the possible presence of the northern long-eared bat was performed. The Petitioner consulted with CTDEEP Wildlife Division to obtain a list of species that may be present at the site that could warrant further consideration. The northern long-eared bat was not included as a possible species at the site per the Final Determination, dated March 17, 2022 (Petition Appendix H). As such, an assessment is not necessary for this species.

Maintenance/Decommissioning

37. **Would replacement modules be stored on-site in the event solar panels are damaged or are not functioning properly? If so, where? How would damaged panels be detected?**

Replacement modules will be stored in an offsite location. Damaged panels would be detected through routine maintenance, inspection, and remote system monitoring.

38. **Has the manufacturer of the proposed solar panels conducted Toxicity Characteristic Leaching Procedure (TCLP) testing to determine if the panels would be characterized as hazardous waste at the time of disposal under current regulatory criteria? If so, submit information that indicates the proposed solar modules would not be characterized as hazardous waste. If not, would the Petitioner agree to install solar panels that are not classified as hazardous waste through TCLP testing?**

The manufacturer has conducted TCLP testing, and a VHB Licensed Environmental Professional has reviewed the results. Two composite samples were analyzed via TCLP for Pesticides & Herbicides, RCRA metals and mercury, Semi-volatile Organic Compounds, and volatile organic compounds. The only compound detected above laboratory detection limits was lead at 0.390 parts per million and the EPA threshold for hazardous lead waste is 5 ppm. Based on these TCLP results, it does not appear that the solar panels would qualify as a hazardous waste for disposal. A copy of these test results is included herewith as Exhibit E.