

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, Connecticut and associated electrical interconnection.	}	Connecticut
	}	Siting
	}	Council

May 6, 2021

Findings of Fact

Introduction

1. On August 10, 2020, East Windsor Solar One, LLC (EWSO or Petitioner) submitted a petition (Petition) to the Connecticut Siting Council (Council), pursuant to Connecticut General Statutes (CGS) §16-50k and §4-176, for a declaratory ruling for the 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, Connecticut and associated electrical interconnection. (EWSO 1, p. 4)
2. The party to the proceeding is EWSO. (Record)
3. EWSO is a Connecticut limited liability company with principal offices in Hartford, Connecticut. EWSO is an affiliate of Verogy LLC, which develops, finances, constructs, operates, and maintains solar projects throughout the United States. (EWSO 1, p. 9)
4. EWSO would construct and own the proposed facility. (EWSO 1, p. 9; EWSO 2, Response 1)
5. The proposed project would be a “grid-side distributed resources” facility under CGS § 16-1(a)(37). (CGS § 16-1(a)(37); EWSO 1, p. 4)
6. The proposed project would generate renewable electrical energy from solar power. Solar power is considered a Class I renewable energy source. (CGS §16-1(a)(20); EWSO 1, p. 4)
7. The State legislature established a renewable energy policy under CGS §16a-35k that encourages the development of renewable energy facilities to the maximum extent possible. (CGS §16a-35k)

Procedural Matters

8. Upon receipt of the petition, the Council sent a letter to the Town of East Windsor and the Town of Ellington (Towns), which is within 2,500 feet of the proposed facility, on August 11, 2020, as notification that the petition was received and is being processed, in accordance with CGS §16-50k(a), and invited the Towns to contact the Council with any questions or comments by September 9, 2020. (Record)
9. By letter dated December 1, 2020, the Town of East Windsor (Town), submitted correspondence requesting a public hearing on the proposed project. (Letter from Town of East Windsor First Selectman dated December 1, 2020)

10. On December 17, 2020, during a public meeting of the Council, the Council granted the Town's request for a public hearing. (Record)
11. On January 14, 2021, during a public meeting, the Council approved a public hearing schedule. (Record)
12. On March 10, 2020, Governor Lamont issued a Declaration of Public Health and Civil Preparedness Emergencies, proclaiming a state of emergency throughout the state as a result of the COVID-19 pandemic. (Council Administrative Notice Item No. 73)
13. On March 12, 2020, Governor Lamont issued Executive Order No. (EO) 7 ordering a prohibition of large gatherings, among other orders and directives. (Governor Lamont's EO 7; Council Administrative Notice Item No. 73)
14. On March 14, 2020 and as subsequently extended, Governor Lamont issued EO 7B ordering suspension of in-person open meeting requirements of all public agencies under CGS §1-225. The Freedom of Information Act defines "meeting" in relevant part as "any hearing or other proceeding of a public agency." (Council Administrative Notice Item No. 73, CGS §1-200, et seq. (2019))
15. EO 7B allows public agencies to hold remote meetings provided that:
 - a) The public has the ability to view or listen to each meeting or proceeding in real-time, by telephone, video, or other technology;
 - b) Any such meeting or proceeding is recorded or transcribed and such recording or transcript shall be posted on the agency's website within seven (7) days of the meeting or proceeding;
 - c) The required notice and agenda for each meeting or proceeding is posted on the agency's website and shall include information on how the meeting will be conducted and how the public can access it;
 - d) Any materials relevant to matters on the agenda shall be submitted to the agency and posted on the agency's website for public inspection prior to, during and after the meeting; and
 - e) All speakers taking part in any such meeting shall clearly state their name and title before speaking on each occasion they speak.(Council Administrative Notice Item No. 73)
16. On March 25, 2020 and as subsequently extended, Governor Lamont issued EO 7M allowing for an extension of all statutory and regulatory deadlines of administrative agencies for a period of no longer than 90 days (Council Administrative Notice Item No. 73)
17. Pursuant to Governor Lamont's EO 7B and CGS §16-50m, the Council published legal notice of the date and time of the remote public hearing via Zoom conferencing in the Journal Inquirer on January 19, 2021. The hearing was scheduled for March 2, 2021. (Council's Hearing Notice dated January 15, 2021; Record)
18. Pursuant to Governor Lamont's EO 7B and CGS §16-50m, on January 15, 2021, the Council sent a letter to the Towns to provide notification of the scheduled remote public hearing via Zoom conferencing and to invite the municipalities to participate. (Record)
19. In compliance with Governor Lamont's EO 7 prohibition of large gatherings, the Council's Hearing Notice did not refer to a public field review of the proposed site. (Council's Hearing Notice dated January 15, 2021)

20. Field reviews are not an integral part of the public hearing process. The purpose of a site visit is an investigative tool to acquaint members of a reviewing commission with the subject property. (Council Administrative Notice Item Nos. 74 and 75)
21. On October 1, 2020, in lieu of an in-person field review of the proposed site, the Council requested the Petitioner submit photographic documentation of site-specific features into the record intended to serve as a “virtual” field review of the proposed site. On October 23, 2020, the Petitioner submitted such information in response to the Council’s first set of interrogatories. (Record; EWSO 2, response 44)
22. On February 3, 2021, the Council held a pre-remote hearing teleconference on procedural matters for parties and intervenors to discuss the requirements for pre-filed testimony, exhibit lists, administrative notice lists, expected witness lists, and filing of pre-hearing interrogatories. Procedures for the remote public hearing via Zoom conferencing were also discussed. (Council Pre-Remote Hearing Conference Memorandum, dated January 27, 2021 and February 3, 2021)
23. Pursuant to Regulations of Connecticut State Agencies (RCSA) § 16-50j-21, on February 12, 2021, EWSO installed a sign measuring six feet by four feet that included information about the proposed facility, the public hearing date and contact information for the Council. The sign was posted at the access road entrance along East Road. (EWSO 4; Council Pre-Remote Hearing Conference Memorandum, dated February 3, 2021)
24. Pursuant to CGS §16-50m, the Council, after giving due notice thereof, held a remote public hearing on March 2, 2021, beginning with the evidentiary session at 2:00 p.m. and continuing with the public comment session at 6:30 p.m. via Zoom conferencing. The Council provided access information for video/computer access or audio only telephone access. (Council's Hearing Notice dated January 15, 2021; Transcript 1 – March 2, 2021 2:00 p.m. [Tr. 1], p. 1; Transcript 2 – March 2, 2021 6:30 p.m. [Tr. 2], p. 124)
25. In compliance with Governor Lamont’s EO 7B:
 - a) The public had the ability to view and listen to the remote public hearings in real-time, by computer, smartphone, tablet or telephone;
 - b) The remote public hearings were recorded and transcribed and such recordings and transcripts were posted on the Council’s website on March 2, 2021 and March 8, 2021, respectively;
 - c) The Hearing Notice, Hearing Program, Citizens Guide for Siting Council Procedures and Instructions for Public Access to the Remote Hearing were posted on the agency’s website;
 - d) The record of the proceeding is available on the Council’s website for public inspection prior to, during and after the remote public hearings; and
 - e) The Council, parties and intervenors and members of the public who spoke during the public comment session provided their information for identification purposes during the remote public hearings.

(Hearing Notice dated January 15, 2021; Tr. 1; Tr. 2; Record)

Municipal Consultation

26. On June 11, 2020, EWSO initiated a public outreach campaign. It sent information regarding the project to abutting property owners, including the developer of record for the Jessie Lane subdivision, surrounding neighbors and the Town. (EWSO 3, pp. 1-2; EWSO 4, response 60(b))
27. On June 11, 2020, the Petitioner launched a project website. (EWSO 3, p. 2)

28. On June 23, 2020, EWSO attended a meeting held via Zoom conferencing of the Town Planning and Zoning Commission at which the Petitioner gave a presentation on the proposed project. (EWSO 3, p. 2)
29. Pursuant to RCSA §16-50j-40 on or about August 5, 2020, the Petitioner notified the abutting property owners, officials from the Towns and state officials and agencies. (EWSO 1, Tab A; EWSO 3, p. 2)
30. On November 24, 2020, the Petitioner attended a meeting and engaged in a follow up email exchange with Town officials. (EWSO 3, p. 2)
31. The Town's December 1, 2020 request for a public hearing also included comments regarding concern for property owners in a nearby residential subdivision on Jessie Lane. (Letter from Town of East Windsor First Selectman dated December 1, 2020)
32. EWSO did not receive any additional abutter or neighbor comments regarding the project. (EWSO 3; EWSO 5, response 61)
33. On March 2, 2021, the Town submitted additional correspondence regarding the proposed facility. (Letter from Town of East Windsor First Selectman dated March 2, 2021)

State Agency Comments

34. Pursuant to RCSA §16-50j-40, on August 11, 2020 and January 15, 2021, the following state agencies were requested to submit written comments regarding the proposed facility: Department of Energy and Environmental Protection (DEEP); Department of Agriculture (DOAg); Department of Public Health (DPH); Council on Environmental Quality (CEQ); Public Utilities Regulatory Authority (PURA); Office of Policy and Management (OPM); Department of Economic and Community Development (DECD); Department of Emergency Services and Public Protection (DESPP); Department of Consumer Protection (DCP); Department of Labor (DOL); Department of Administrative Services (DAS); Department of Transportation (DOT); the Connecticut Airport Authority (CAA); and the State Historic Preservation Office (SHPO). (Council State Agencies Memorandum, dated August 11, 2020; Council Hearing Documents, dated January 15, 2021)
35. CEQ provided comments, dated September 4, 2020. See attached. (Record)
36. DOT and DPH submitted correspondence stating the agencies have no comments, dated September 17, 2020 and January 29, 2021, respectively. (Record)
37. The following agencies did not respond with comment on the petition: DEEP, DOAg, PURA, OPM, DECD, DESPP, DCP, DOL, DAS, and SHPO. (Record)
38. While the Council is obligated to consult with and solicit comments from state agencies by statute, the Council is not required to abide by the comments from state agencies. (Council Administrative Notice Item No. 78, *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007))

State of Connecticut Planning and Energy Policy

39. Section 51 of Public Act (PA) 11-80 requires that DEEP prepare a Comprehensive Energy Strategy (CES) every three years that reflects the legislative findings and policy stated in CGS §16a-35k. As such, this statute consolidated Connecticut's energy planning for the first time. The final version of the state's inaugural CES was published on February 19, 2013 (2013 CES). It advocated smaller, more diversified generation projects using renewable fuels, as well as smaller, more innovative transmission projects emphasizing reliability. (2013 CES; CGS §16a-3d)
40. On February 8, 2018, DEEP issued the 2018 Comprehensive Energy Strategy (2018 CES). Guided by the long-term vision of transitioning to a zero-carbon economy, the 2018 CES highlights eight key strategies to guide administrative and legislative action over the next several years. Specifically, strategy No. 3 is "Grow and sustain renewable and zero-carbon generation in the state and region." (Council Administrative Notice Item No. 52 – 2018 CES, p. 14)
41. CGS §16-245a establishes Connecticut's *Renewable Portfolio Standards (RPS)*. Up until recently, RPS required that 20 percent of Connecticut's electricity usage had to be obtained from Class I renewable resources by 2020. Under Public Act 18-50, RPS was updated to require 21 percent of Connecticut's electricity usage be obtained from Class I renewable resources by 2020 and increasing each year to reach 40 percent by 2030. (CGS §16-245a; Public Act 18-50; Council Administrative Notice Item No. 52 – 2018 CES, pp. 110-112)
42. The 2018 CES notes that, "Most recent analyses indicate that there should be adequate Class I resources to meet Connecticut's Class I Renewable Portfolio Standards (RPS) goals in 2020*." *This was based on the "20 percent Class I by 2020" requirement that was in place at the time the 2018 CES was prepared. (Council Administrative Notice Item No. 52 – 2018 CES, p. 112)
43. The Global Warming Solutions Act (PA 08-98) sets a goal of reducing greenhouse gas (GHG) emissions by 80 percent by 2050. (CGS §22a-200)
44. The proposed facility will contribute to fulfilling the State's Renewable Portfolio Standard and Global Warming Solutions Act as a zero emission Class I renewable energy source. (Council Administrative Notice Item No. 52 – 2018 CES)
45. Section 7 of PA 08-98 required the Governor's Steering Committee on Climate Change to establish an Adaptation Subcommittee to evaluate the projected impacts of climate change on Connecticut agriculture, infrastructure, natural resources and public health and develop strategies to mitigate these impacts. (Council Administrative Notice Item No. 66 – Climate Change Preparedness Plan)
46. Governor Lamont's 2019 Executive Order No. 3 declares the state's goal to reach 100 percent carbon free electricity by 2040. (Governor Lamont's Executive Order No. 3, September 3, 2019)

Competitive Energy Procurement

47. Energy produced by the project would be sold to Eversource at market rates specified in the utility tariff. (EWSO 1, p. 5)
48. EWSO would participate in virtual net metering (VNM) if capacity becomes available. Participation in the virtual net metering program would be subject to all VNM Rider and other program requirements and is contingent upon the availability of VNM capacity. (EWSO 1, p. 5)

49. The project was awarded two low emission renewable energy credit (LREC) contracts through a competitive request for proposal process for 4 MW of the capacity of the project. EWSO entered into two 15-year purchase contracts with Eversource. EWSO is seeking an additional contract for the remaining approximately 1 MW AC. The delivery date for the contracts was originally April 1, 2021 and was extended to July 1, 2021. (EWSO 1, p. 5; Tr. 1, pp. 15-16)
50. A renewable energy certificate (REC) certifies that one megawatt-hour (MWh) of renewable electrical energy has been generated. RECs create a market to separate renewable energy attributes and resource output. Environmental attributes are sold into the REC markets. Zero emission renewable energy credit (ZREC) contracts are limited to 1 MW, and LREC contracts are limited to 2 MW. (CGS §16-244r; Council Administrative Notice Item No. 53 – 2014 DEEP Integrated Resources Plan, Appendix D)
51. EWSO is pursuing a separate ZREC contract for the remaining one megawatt of capacity. (Tr. 1, p. 16)
52. The Petitioner intends to participate in an Independent System Operator – New England (ISO-NE) Forward Capacity Auction (FCA). It originally intended to participate in ISO-NE FCA #15 for the commitment period in 2024/2025. (EWSO 2, response 3; Tr. 1, p. 17)

Public Benefit

53. A public benefit exists when a facility is necessary for the reliability of the electric power supply of the state or for the development of a competitive market for electricity. (CGS. §16-50p)
54. The project would be a distributed energy resource facility as defined in CGS §16-1(a)(49). 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.” (CGS §16-1(a)(49); CGS §16a-35k)

Public Act 17-218

55. Effective July 1, 2017, PA 17-218 requires, “for a solar photovoltaic facility with a capacity of two or more megawatts, to be located on prime farmland or forestland, excluding any such facility that was selected by DEEP in any solicitation issued prior to July 1, 2017, pursuant to section 16a-3f, 16a-3g or 16a-3j, the DOAg represents, in writing, to the Council that such project will not materially affect the status of such land as prime farmland or DEEP represents, in writing, to the Council that such project will not materially affect the status of such land as core forest.” (CGS §16-50k)
56. Pursuant to CGS §16-50x, the Council has exclusive jurisdiction over the construction, maintenance and operation of solar photovoltaic electric generating facilities throughout the state. PA 17-218 does not confer the Council’s exclusive jurisdiction upon DOAg or DEEP nor does it permit DOAg or DEEP to impose any enforceable conditions on the construction, maintenance and operation of solar photovoltaic electric generating facilities under the exclusive jurisdiction of the Council. (CGS §16-50k and 16-50x)
57. By letter dated May 20, 2020, DEEP’s Bureau of Natural Resources determined the proposed solar facility would not have a material impact on the status of core forest. (May 20, 2020 DEEP CGS §16-50k No Material Impact to Core Forest Determination Letter; EWSO 1, p. 25)

58. By letter dated September 16, 2020, DOAg determined the proposed solar facility would not have a material impact on the status of prime farmland. (September 16, 2020 DOAg CGS §16-50k No Material Impact to Prime Farmland Determination Letter)
59. PA 17-218 also requires that the Council not find a substantial adverse environmental effect in its exercise of jurisdiction over facilities eligible to be approved by declaratory ruling under CGS §16-50k. There are no exemptions from this provision of PA 17-218. (CGS §16-50k)

Site Selection

60. EWSO selected the site based on the following factors:
- a) The property is cleared and not within core forest;
 - b) The facility would not impact wetlands;
 - c) The site is in close proximity to the existing electrical grid; and
 - d) The facility would leave approximately 80 percent of the property undeveloped.
- (EWSO 1, p. 12)
61. The Petitioner reviewed approximately two to three dozen alternative sites in the Hartford and Tolland County area in its search for a solar facility location. Factors that contributed to the selection of the proposed location were landowner willingness for the installation, interconnection availability and site characteristics. (Tr. 1, pp. 17-18)
62. Pursuant to CGS §16-50p(g), the Council has no authority to compel a parcel owner to sell or lease property, or portions thereof, for the purpose of siting a facility. (Council Administrative Notice Item No. 78 - *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007))

Site

63. Pursuant to RCSA §16-50j-2a(29), "Site" means a contiguous parcel of property with specified boundaries, including, but not limited to, the leased area, right-of-way, access and easements on which a facility and associated equipment is located, shall be located or is proposed to be located. (RCSA §16-50j-2a(29))
64. The proposed site is located on a 147.8-acre parcel that straddles the East Windsor/Ellington Town Line. The approximately 75.99-acre East Windsor portion of the parcel is zoned as both Agricultural/Residential (A-1) and Single Family Residential (R-3). The East Windsor portion of the parcel is primarily undeveloped, active agricultural land and includes a farmhouse, several farm buildings and a barn. The approximately 71.82-acre Ellington portion of the parcel is undeveloped with an electric utility right-of-way extending in a north/south direction through the parcel. (EWSO 1, pp. 6, 10)
65. The project would be located entirely on the East Windsor portion of the parcel within an existing agricultural field. The total project area consists of approximately 29.1 acres. (EWSO 1, p. 10-11)
66. The project area is located east of East Road, south of Middle Road and west of the Ellington town boundary. The site's topography consists of gentle slopes ranging in elevation from approximately 205 feet above mean sea level (amsl) in the north to approximately 185 feet amsl in the southwest. Pecks Brook runs through the property south of the project area. (EWSO 1, p. 10)

67. The surrounding land use is primarily undeveloped wooded and agricultural with a residential area north of the property across Middle Street. (EWSO 1, p. 10)

Project Description

Solar Array

68. Approximately 19,344 fixed tilt bi-facial solar panels, consisting of 15,990 395-Watt direct current (DC) and 3,354 380-Watt DC have been procured by EWSO. The panel wattages of 395 and 380 are the monofacial values, i.e. based on the front sides of the panels only. The bifacial contributions from reverse sides of the panels would add approximately 10 percent. (EWSO 1, p. 12; EWSO 5, response 64; Tr. 1, p. 70)
69. The panels would be arranged in a landscape orientation. Each rack would hold either 12, 16 or 20 modules. The panels would be installed at a 30 degree angle, extending to a height of approximately 10 feet above grade and approximately 3 feet above grade at the bottom edge. (EWSO 1, p. 12, Tab B, pp. 31, 32; EWSO 2, response 17)
70. The solar panels would be installed on posts driven approximately 8 feet into the ground. (EWSO 2, p. 19)
71. Solar array rows (panel edge to panel edge) would be spaced 17.2 feet apart. Aisle width was determined by the use of bifacial panels. The spacing would minimize shading and maximize overall capacity from the facility. Once installed, the horizontal width of the panel row would measure 11.4 feet (from bottom edge to top edge at 30 degree angle). (EWSO 1, Tab B, Appendix A, Sheet SP-1 and SP-2; EWSO 2, response 21)
72. Wiring that connects the panels would be installed on the panel racking. Wiring that is not installed on the racking would be run in a conduit. (EWSO 2, response 21)
73. Three equipment pads would be installed within the northern portion of project area along Middle Road. Two equipment pads would be approximately 84 feet by 17 feet. The third pad would be approximately 46 feet by 17 feet. (EWSO 1, Tab B, Appendix A, Sheet SP-1; EWSO 2, response 18)
74. The proposed project would be enclosed by a chain link fence in compliance with the National Electrical Code (NEC). The fence would be eight feet tall along the northern portion along Middle Road. The fence along the southern, eastern and western areas would be seven feet tall. The entire northern and western fence line would include privacy slats. The fencing is proposed to extend to the ground, as requested by EWSO's grazing partners for protection of sheep in the project area. (EWSO 1, p. 13; Tr. 1, pp. 23, 24, 48, 72)
75. Solar panels would be installed approximately 15 to 20 feet from the project perimeter fence. (EWSO 1, Tab B, Appendix A, Sheet SP-1)
76. Solar panels and a portion of the access road would be located within the stormwater basin, which allows for the utilization of existing site topography and depression within an earthen berm on the southern portion of the site. Use of the existing topography would minimize the need for cut on-site, thereby helping maintain the separation of the existing groundwater within 5 feet of the existing grades. (EWSO 2, response 47)

77. The nearest property line is approximately 60 feet to the west across East Road. The nearest residence is approximately 110 feet to the north at 73 Middle Road. (EWSO 2, response 10)

Site Access

78. Access to the facility would extend from East Road, on the western boundary of the property, and continue to the center of the facility where another access road would be perpendicular to it in a north/south direction. Since no existing roads are located within the property, approximately 2,340 feet of new gravel roads would be constructed. (EWSO 1, p. 13; Tab B, Appendix A, Sheet SP-1)
79. Construction of the access roads would require minimal grading. (EWSO 1, p. 13)

Electrical Interconnection

80. The project would have a capacity of approximately 4.9 MW AC. Electrical loss assumptions have been factored into the output of the facility. The facility output would be 4.975 MW AC at the point of interconnection. (EWSO 2, response 11)
81. The project would interconnect to an existing distribution pole located northwest of the site along East Road. Six new 40-foot utility poles would be installed along Middle Road. (EWSO 1, p. 8; Tr. 1, pp. 36, 38)
82. The interconnection would be conducted in accordance with Eversource's technical standards and State of Connecticut, ISO-NE and Federal Energy Regulatory Commission requirements. (EWSO 1, p. 8)
83. The project has three separate meters to support the potential for three separate LREC/ZREC contracts, in accordance with the LREC/ZREC program which requires no more than one LREC/ZREC contract at a given revenue meter in any given solicitation. (EWSO 6, response 67; Tr. 1, p. 35)
84. The three meters on the three poles to the east are the point of change of ownership between EWSO and Eversource. (Tr. 1, pp. 114, 115)
85. The Petitioner executed interconnection agreements with Eversource in February 2020. (EWSO 2, responses 23 and 24)
86. The existing electrical distribution line on Middle Road is single phase. It would be upgraded to a three-phase distribution circuit. (EWSO 2, response 27)
87. A feasibility study and distribution system impact study were completed. The distribution system impact study determined that there would be no operational constraints. (EWSO, 2, response 23; Tr. 1, p. 34)
88. A distributed generation project that is interconnecting to the electric distribution system must complete the PURA approved interconnection process and receive an Authorization to Interconnect from the interconnecting utility prior to being able to generate power and create RECs. (CGS §16-244r – LREC/ZREC Program, Standard Contract for the Purchase and Sale of Connecticut Class I Renewable Energy Projects)

89. The project interconnection is not required to be reviewed by ISO-NE. (EWSO 2, response 24)

Project Construction

90. The timing of construction for the project would depend on final regulatory approvals. EWSO would begin construction upon receipt of necessary permits. Construction would take approximately six months. (EWSO 1, p. 14; Tr. 1, pp. 48, 49)

91. Construction of the project would be performed in two phases.

Phase 1 includes:

- a. Minimal clearing and grubbing to install construction entrances;
- b. Installation of perimeter erosion control; and
- c. Installation of a temporary sediment basin.

Phase 2 includes:

- a. Removal and disposal of demolition debris in accordance with applicable laws;
- b. Temporary seeding of disturbed areas not under construction for at least 30 days;
- c. Installation of gravel access roads, equipment pads and electrical conduit;
- d. Installation of racking posts;
- e. Installation of solar panels and completion of electrical installation;
- f. Completion of remaining site work including landscaping and stabilization;
- g. Conversion of the temporary sediment basin into the permanent stormwater basin;
- h. Final grading raking, seeding and mulching of all disturbed areas; and
- i. Removal of perimeter erosion and sedimentation controls.

(EWSO 1, pp. 14, 15)

92. Phase 2 of construction would begin immediately upon the stabilization of the sediment basin. Stabilization would consist of erosion control blankets on the berm for temporary sediment control. (Tr. 1, p. 29)
93. Site disturbance including the solar array and associated fencing, access road, utility and stormwater management features would occur over approximately 29.1 acres on the property. (EWSO 1, Tab D, p. 1)
94. Existing grades would remain within the project area with the exception of the project's stormwater management features. (EWSO 1, p. 14)
95. Construction of the gravel access roads and stormwater basin would require minimal grading and would generate some material that would be redistributed over the site. (EWSO 1, p. 25)
96. Erosion and sedimentation controls would be installed to treat any exposed soils in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* (2002 Guidelines). (EWSO 1, p. 25)
97. Construction hours would be Monday through Friday from 7:00 AM to 4:00 PM; Saturday, if necessary, from 7:00 AM to 4:00 PM; and Sunday, if necessary, from 9:00 AM to 4:00 PM. (EWSO 1, p. 14; EWSO 2, response 55)

Traffic

98. Once operational, the site would require minimal traffic. Typically, the facility would require mowing and routine maintenance once per year with two technicians for one day. Additional repairs would be made, as necessary. (EWSO 1, Tab B, p. 6)

Facility Operation

99. The projected capacity factor for the project is 21.9 percent on an AC MWh to AC MWh basis, and it includes factors such as inter-row panel shading and losses from shading caused by dirt, leaves, or snow accumulating on the module surface. (EWSO 1, p. 13; EWSO 2, response 13, response 21)
100. The 395-watt module has an efficiency factor of 19.5 percent. The 385-watt module has an efficiency factor of 19.3 percent. The efficiency factor of both modules is only accounting for the primary side of the bifacial panel. (EWSO 1, Tab B, Appendix F)
101. A battery energy storage system (BESS) is not proposed for this project at this time. If a BESS is incorporated in the future, it would likely be located on the customer side of the existing inverters and would not conflict with the interconnection approval with Eversource. (EWSO 2, response 12)
102. The project is not designed to serve as a microgrid. (EWSO 2, response 14)

Operations and Maintenance

103. Maintenance would include mowing and routing maintenance once per year. Sheep-grazing would also be used for vegetation maintenance during the growing season (April/May through October/November). (EWSO 1, p. 15; EWSO 2, response 56)
104. Vegetation management outside of the fenced in area would be managed on an as-needed basis. (EWSO 2, response 56)
105. Snow removal on the modules is not anticipated as snow is expected to sheet off the panels. (EWSO 1, p. 15)
106. The panels are not expected to require cleaning. (EWSO 2, response 57)
107. ESWO would not store replacement modules on the site. Any damaged panels would be detected through remote monitoring or routine site inspections. (EWSO 2, response 58)

Project Decommissioning

108. The Project has a lifespan of 35 years. (EWSO 1, p. 13)
109. At the end of the project's lifespan, it will be fully decommissioned and removed from the property. The site would be restored to its original condition, with the exception of any access roads that the property owner prefers to keep in place. (EWSO 1, p. 16)

110. Removal/decommissioning of the proposed solar facility at the end of its useful life would be performed in accordance with the provisions of the lease agreement executed with the landowner. (EWSO 2, response 4)
111. EWSO would remove the facility within 90 days of the end of the lease agreement. (EWSO 2, response 4)
112. EWSO intends to recycle all project materials at the end of the life of the project. If the EWSO must landfill the panels, it would conduct a Toxicity Characteristic Leaching Procedure (TCLP) at that time. A TCLP procedure is where the panels are crushed and pulverized to determine if any hazardous substances above regulatory thresholds leach out. (EWSO 5, response 62)

Public Safety

113. The proposed project would comply with the NEC, the National Electrical Safety Code (NESC) and the National Fire Protection Association (NFPA) code. (EWSO 2, response 28)
114. The Petitioner would provide assistance and/or training to local emergency responders if requested. (EWSO 2, response 30a)
115. Emergency responders would be provided access to the site via a Knox Lock Box at the entrance to the facility. In the event of a fire at the facility, the Petitioner would notify local emergency response personnel and de-energize the system remotely to mitigate potential electric hazards to emergency response personnel. (EWSO 2, response 30b, 30c, 30d)
116. The project area is within Federal Emergency Management Agency (FEMA)-designated Zone X, which is an area of minimal flooding. Thus, the project is not located within the 100-year or 500-year flood zone. (EWSO 1, pp. 37, 38)
117. The Petitioner has not consulted with the DEEP Dam Safety Division based on the stormwater basin being designed to contain water at a maximum 1.5-foot depth during the 100-year storm event and fully drain within 72 hours. The Petitioner would consult with the DEEP Dam Safety Division if requested by the Council. (EWSO 2, response 50)
118. The FAA requires a glare analysis for on-airport solar development at federally obligated airports. Federally obligated airports are airports that receive federal funding. The FAA recommends that the design of any solar installation at an airport consider the approach of pilots and ensure pilots will not have to face glare that is straight ahead of them or within 25 degrees of straight ahead during the final approach. (Council Administrative Notice Item Nos. 17-19)
119. The nearest federally-obligated airport to the facility is Bradley International Airport, which is 9.3 miles away from the facility. Skylark Airpark in East Windsor and Ellington Airport in Ellington are both approximately 3.8 miles from the proposed facility. The Petitioner received a "Determination of No Hazard to Air Navigation" from the Federal Aviation Administration (FAA). No glare analysis is expected to be required. (EWSO 2, response 29; EWSO 5, response 65)

Noise

120. Once operational, noise from the project would be minimal. Noise emissions from the generating equipment would be from the inverters and transformers. The loudest project equipment would be the 2,000 kVA transformer, which would have a maximum sound level of 68 dBA at 1-foot from the equipment. Sound would reduce with distance and the transformers are inactive at night. (EWSO 1, p. 44)
121. The nearest property line to the transformer is 125 feet to the north and is a residential parcel at 309 East Road. Calculated noise emissions, using the Inverse Square Law, were determined to be below 55 dBA at the surrounding property lines. With residential receptors, the DEEP Noise Control Standards would be 61 dBA during the daytime and 51 dBA at nighttime. (EWSO 1, p. 44; RCSA §22a-69-3.5)
122. Construction noise is exempt from DEEP Noise Control Standards. (RCSA §22a-69-108(g))

Environmental Effects

Air Quality

123. The proposed project would meet DEEP air quality standards, with no material emissions associated with site operation. The Project does not require an air permit. (EWSO 1, Tab B, p. 24)
124. An equivalently-sized natural gas fueled electric generating facility would produce about 305,791 metric tons of carbon dioxide equivalent (MT CO₂eq) over an equivalent 20-year service life. The proposed solar facility would have an estimated carbon debt of 33,386 MT CO₂eq. Thus, the solar facility would result in an 89 percent reduction in GHG emissions. (EWSO 2, response 31)
125. During construction of the proposed project, air emissions from construction vehicles would be de minimus and temporary in nature. Air emissions during construction would be minimized through limiting idling time of construction equipment; proper maintenance of construction vehicles and equipment; and watering/spraying equipment to minimize dust and particulate releases. (EWSO 1, p. 40, Tab B, p. 24)

Water Quality

126. As applicable to any proposed jurisdictional facility site, the Council's Filing Guide for a Petition for a Declaratory Ruling for a Renewable Energy Facility requires the submission of Plans for erosion and sedimentation control consistent with the *2002 Connecticut Guidelines for Erosion and Sedimentation Control (2002 Guidelines)*; Water consumption and discharge rates; FEMA Flood Zone information and associated flood mitigation plans; Proximity to DEEP Aquifer Protection Areas; DEEP groundwater classification underlying the site; Wetland and Watercourse Analysis Report and map, and associated Wetland and Watercourse Impact Mitigation Plan; and Vernal Pool Analysis Report and map, and associated Vernal Pool Impact Mitigation Plan. (Record)
127. During operation, the Project would not require water use and would not generate wastewater. No potable water supplies would be provided, and no sanitary discharges would occur. (EWSO 1, p. 17)

128. Groundwater at the site is classified by DEEP as “GA” which indicates groundwater that is presumed to be suitable for human consumption without treatment. The project would have no adverse impact on groundwater quality. (EWSO 1, Tab B, p. 23)
129. The site is not located within a DEEP-classified Aquifer Protection Area. The nearest APA is located 1.25 miles west of the project area. (EWSO 1, Tab B, p. 23)
130. There is an onsite well that services the single-family home south of the proposed facility. No groundwater impacts are anticipated from construction of the proposed facility. Vibrations resulting from installation of the racking system are not expected to cause sediment releases. (EWSO 2, response 37)

Stormwater

131. Pursuant to CGS Section 22a-430b, DEEP retains final jurisdiction over stormwater management and administers permit programs to regulate stormwater pollution. DEEP regulations and guidelines set forth standards for erosion and sedimentation control, stormwater pollution control and best engineering practices. (CGS §22a-430b; DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities. (DEEP-WPED-GP-015)
132. The DEEP Individual and General Permits for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (Stormwater Permit) require implementation of a Stormwater Pollution Control Plan (SWPCP) to prevent the movement of sediments off construction sites into nearby water bodies and to address the impacts of stormwater discharges from a proposed project after construction is complete. In its discretion, DEEP could hold a public hearing prior to approving or denying any Stormwater Permit application. (CGS Section 22a-430b; CGS Section 22a-430(b))
133. The SWPCP incorporates project designs consistent with the *2002 E&S Guidelines* and the *2004 Connecticut Stormwater Quality Manual* (2004 Stormwater Manual). (DEEP-WPED-GP-015)
134. DEEP has the authority to enforce proposed project compliance with its Individual or General Permit and the SWPCP, including, but not limited to, the installation of site-specific water quality protection measures in accordance with the *2002 E&S Guidelines*. (CGS Section 22a-430b)
135. The Council may impose a condition that requires subsequent compliance with DEEP standards and regulations. (Council Administrative Notice No. 77)
136. The proposed project would require a DEEP-issued Stormwater Permit prior to commencement of construction. (CGS Section 22a-430b)
137. The proposed project would comply with the *2002 E&S Guidelines* and *2004 Stormwater Quality Manual*. (EWSO 1, Tab B, p. 23)
138. Existing drainage in the project area typically drains from the northwest to southeast into either a wooded area south of the property or an existing wetland and watercourse to the east. (EWSO 1, Tab D, p. 2)
139. EWSO proposes a grass-lined infiltration basin/temporary sediment basin in the southern portion of the project area. (EWSO 1, Tab B, p. 24, Tab D, p. 1)

140. EWSO met with DEEP Stormwater Division in a pre-application meeting in January of 2020. The only recommendation from that meeting was to use the Appendix I guidance document. The Petitioner incorporated DEEP's comments into the Petition. (EWSO 2, response 46)
141. Stormwater calculations were performed for 2, 25, 50 and 100-year storms. The hydrological calculations indicate that the design of the proposed stormwater basin would reduce peak rates of runoff below pre-construction levels. (EWSO 1, Tab D, p. 4)
142. An undisturbed vegetative buffer between a developed area and a wetland resource can filter pollutants and protect water quality from stormwater runoff. (Council Administrative Notice No. 48 - 2004 *Stormwater Quality Manual*, pp. 4-3 – 4-4)
143. Generally, a minimum 100-foot undisturbed upland buffer along a wetland boundary or on either side of a watercourse should be maintained to promote water quality. Establishment of buffers should also consider slopes and the sensitivity of wetland/watercourse resources. (Council Administrative Notice No. 48 – 2004 Stormwater Manual, pp. 4-3 – 4-4)
144. Solar panels and a portion of the access road would be located within the stormwater basin to allow for use of the site's existing topography. Due to the large surface area of the stormwater basin, water in the basin would not rise above 1.5 feet, even during a 100-year storm event putting the road and the support racking posts of the modules under up to 1 foot of water. The basin is designed to fully drain within 72 hours. The road and modules would not experience any staging stormwater under a typical 2-year storm event. (EWSO 2, response 47)
145. Any sediment resulting from the use of the access road for maintenance activities would be removed and transported from the basin via a skid-steer loader. The sediment would be spread and stabilized within upland areas onsite or disposed of in accordance with applicable laws and regulations. (EWSO 2, response 48)
146. Overflow during a storm event would flow south towards the wetland system, i.e. the same direction stormwater currently flows from the site. (Tr. 1, p. 106)
147. The stormwater management plan has been approved by DEEP and is pending a letter of credit. (Tr. 1, p. 28)
148. EWSO will discuss with DEEP Stormwater Division the proposed sheep grazing on the site and discuss any concerns DEEP may have. (Tr. 1, p. 86)

Wetlands and Watercourses

149. The Inland Wetlands and Watercourses Act (IWWA), CGS §22a-36, *et seq.*, contains a specific legislative finding that the inland wetlands and watercourses of the state are an indispensable and irreplaceable but fragile natural resource with which the citizens of the state have been endowed, and the preservation and protection of the wetlands and watercourses from random, unnecessary, undesirable and unregulated uses, disturbance or destruction is in the public interest and is essential to the health, welfare and safety of the citizens of the state. (CGS §22a-36, *et seq.*)

150. The IWWA grants regulatory agencies with the authority to regulate upland review areas in its discretion if it finds such regulations necessary to protect wetlands or watercourses from activity that will likely affect those areas. (CGS §22a-42a)
151. The IWWA forbids regulatory agencies from issuing a permit for a regulated activity unless it finds on the basis of the record that a feasible and prudent alternative does not exist. (CGS §22a-41)
152. Under the IWWA:
- a) “Wetlands” means land, which consists of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey, as may be amended from time to time, of the Natural Resources Conservation Service of the United States Department of Agriculture;
 - b) “Watercourses” means rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent, public or private, which are contained within, flow through or border the state; and
 - c) Intermittent watercourses are delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) Evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation. (CGS §22a-36, *et seq.*)
153. On May 21, 2019, one wetland was delineated on the property and includes a perennial watercourse and a vernal pool. Wetland 1 consists of vegetated wetlands bordering Pecks Brook, an interior perennial watercourse, and two man-made agricultural ponds. The stream and wetland complex drains south, initially on the Ellington portion of the parcel and then turns west into the East Windsor portion of the parcel and eventually drains into a farm pond. (EWSO 1, Tab B, pp. 11, 15)
154. The wetland system contains pockets of interior flooding dominated by emergent, scrub/shrub and forest vegetation. (EWSO 1, Tab B, p. 15)
155. The nearest construction activities to the wetland habitat is approximately 145 feet to the east and includes the fencing, solar modules and stormwater features. No direct impacts to the wetland or watercourse are expected. EWSO would install erosion and sedimentation controls consistent with the 2002 *E&S Guidelines* to ensure avoidance of any unintentional impacts to these resources. (EWSO 1, Tab B, p. 15)
156. Secondary impacts to wetland resources would be mitigated by planting native vegetation on the ground beneath the solar arrays to allow surface water to infiltrate or slow prior to discharge. (EWSO 1, Tab B, p. 16)

Vernal Pools

157. A vernal pool assessment was performed on March 22 and April 10, 2020. A cryptic vernal pool habitat was identified interior to Wetland 1 on the Ellington portion of the parcel. The nearest edge of the vernal pool is approximately 515 feet east of the project area. (EWSO 1, Tab B, pp. 15, 17)
158. Vegetation within the vernal pool consists of scrub/shrub and forest. The scrub/shrub habitat in the western portions of the vernal pool is within the existing electric transmission line right of way. Dominant vegetation includes buttonbush, silky dogwood, highbush blueberry and winterberry. The

- eastern portions of the vernal pool are forested, and dominant vegetation includes pin oak, swamp white oak and red maple. (EWSO 1, Tab B, p. 17)
159. The vernal pool hydrology is semi-permanently flooded with the maximum observed depth of two feet. (EWSO 1, Tab B, p. 18)
160. Two common vernal pool indicator species, the wood frog and spotted salamander, were confirmed within the vernal pool. A total of 53 spotted salamander egg masses and 127 wood frog egg masses were observed. (EWSO 1, Tab B, p. 18)
161. An additional vernal pool indicator species, the blue-spotted salamander, was considered potentially present because the pool is within the Scantic River Drainage Basin, an area where populations of blue-spotted salamander are known to occur, and the pool is suitable breeding habitat for the species. The pool would also be suitable habitat for the spotted turtle. (EWSO 1, Tab B, p. 18; Council Administrative Notice Item No. 86 – US Army Corps of Engineers Vernal Pool Best Management Practices)
162. Temperatures during the surveys were below average, and species remained largely dormant and inactive during late March and early April as ice was present in the pool. However, other species identified were painted turtle and spring peeper. (EWSO 1, Tab B, p. 18)
163. The project would be consistent with the 2015 U.S. Army Corps of Engineers New England District's Vernal Pool Best Management Practices. (EWSO 2, response 41)

Visibility

164. The area around the proposed site is generally devoid of trees and includes agricultural areas. Residences to the north across Middle Road and Jessie Lane farther to the north, were developed on former agricultural fields and lack natural vegetation. (EWSO 1, Tab B, p. 31)
165. Expected year-round views of the proposed facility occur over approximately 369 acres (14.6 percent of the one-mile radius/2,522-acre study area) of the surrounding area and would include agricultural or formal agricultural areas extending up to approximately 0.4 mile away. Most properties to the west, along East Road, that would have views of the facility are undeveloped agricultural or wooded lots. Views of the facility from the residential area across Middle Road, would be minimized by the installation of privacy slats in the fencing and landscaping on the northern side of the facility. EWSO would also install privacy slats along the entire western fence line. EWSO would be willing to install landscaping along the western fence line, if requested. (EWSO 1, Tab B, pp. 31, 32, Appendix H; Tr. 1, pp. 23, 24, 42)
166. Expected seasonal views of the facility during leaf off conditions would occur over an additional approximately 361 acres (14.3 percent of the one-mile radius/2,522-acre study area) and could extend up to about 0.75 mile to the north and west of the site. Views from the east would be minimized by the presence of intervening vegetation. (EWSO 1, Tab B, p. 32, Appendix H)
167. The nearest portion of the site features are approximately 50 feet south of the nearest lot line within the Jessie Lane residential subdivision north of Middle Road. The nearest residence within the Jessie Lane subdivision is approximately 300 feet away. (EWSO 5, response 60a)

168. The nearest parcel used for publicly accessible recreational purposes is Pierce Memorial Park, located approximately 0.75 mile west of the project. Views from the park are not anticipated due to the distance, low height of the solar facility and intervening vegetation. (EWSO 5, response 43)
169. There are no state or locally designated scenic roads or recreational areas that would be visually impacted by the proposed facility. (EWSO 1, p. 42)
170. The modules would absorb solar radiation and minimize reflectivity. A small percentage of incidental light would be reflected off the panels. (EWSO 1, Tab B, p. 32)
171. The proposed 40-foot utility poles would be located along Middle Road and would be visible from Middle Road and the surrounding area. The junction pole would be located about 50 feet on a diagonal from the existing Eversource electric distribution pole at the corner of Middle Road and East Road. The additional five poles to be installed for project interconnection would be behind the fence of the facility. Equipment would be installed at the top of the poles and would be visible from the surrounding area. (Tr. 1, pp. 40-42)

Historic and Archaeological Resources

172. There are no properties or historic structures listed, or eligible for listing, on the National Register of Historic Places within or near the project site. (EWSO 1, p. 41)
173. A cultural resource survey was conducted and determined the materials found on the site lacked research potential and the qualities of significance and no additional testing was required. EWSO provided the results of the findings to SHPO in May of 2020. (EWSO 1, p. 41)
174. SHPO reviewed the cultural resource assessment, concurred with its findings and found that no historic properties would be affected. (EWSO 1, p. 42, Tab B, Appendix E)

Wildlife

175. According to DEEP Natural Diversity Data Base (NDDB) mapping, the proposed site is within a shaded area of the NDDB. (EWSO 1, Tab B, p. 13)
176. On February 24, 2020, EWSO submitted an NDDB review request to DEEP with respect to the project. On March 5, 2020, DEEP replied stating that they do not anticipate negative impacts to state-listed species within the area. (EWSO 1, p. 14)
177. The northern long-eared bat (NLEB), a federally-listed Threatened Species and state-listed Endangered Species, range encompasses the State of Connecticut. There are no known NLEB hibernacula within East Windsor; the nearest hibernaculum is located 11.3 miles away in East Granby. There are no known maternity roost trees in Connecticut. Furthermore, there is no tree clearing proposed for this project. (Council Administrative Notice Item No. 93 – DEEP NDDB Map; Council Administrative Notice Item No. 54 – 2015 DEEP Endangered, Threatened and Special Concern Species; EWSO 1, Tab B, p. 14)

Geology

178. According to the United States Department of Agriculture Natural Resources Conservation Service (NRCS) mapping, the site contains deposits of sand and thin deposits of glacial till. Soils on site are comprised of Enfield silt loam, Manchester gravelly sandy loam and Tisbury silt loam. (EWSO 1, Tab B, p. 25)
179. The majority of on-site soils belong to Hydrologic Soil Group “B” which indicates the soils have a moderate infiltration rate when thoroughly wet. Smaller portions of the site belong to Hydrologic Soil Group “A” which indicates the soils have a high infiltration rate when thoroughly wet. (EWSO, Tab D)
180. EWSO does not expect to encounter bedrock during construction. (EWSO 1, Tab B, p. 25)

Agriculture

181. The statutory mission of the Governor’s Council for Agricultural Development (GCAD) is to develop a statewide plan for Connecticut agriculture. In 2012, GCAD recommended DOAg create an agriculture-friendly energy policy that include, but are not limited to, on-farm energy production to reduce costs and supplement farm income, agricultural net metering for power production and transmission, and qualification of agricultural anaerobic digestion projects for zero-emissions renewable energy credits ZRECs. (Council Petition 1312, Finding of Fact #227)
182. Agriculture in Connecticut is likely to be adversely impacted by climate change. It is most affected by changes in temperature and both the abundance and lack of precipitation. The top five most imperiled agricultural products are maple syrup, dairy, warm weather produce, shellfish and apple and pear production, but there are opportunities for production expansion with the future climate, including, but not limited to, biofuel crops, witch hazel and grapes. (Council Administrative Notice Item No. 66 – Climate Change Preparedness Plan)
183. Adaptation strategies for climate change impacts to agriculture include promotion of policies to reduce energy use, conserve water and encourage sustainability. (Council Administrative Notice Item No. 66 – Climate Change Preparedness Plan)
184. The proposed project would not qualify under Connecticut’s Agricultural Virtual Net Metering Program because an agricultural virtual net metering facility is defined under CGS §16-244u(a)(7)(B) as having a nameplate capacity rating of 3 MW or less. (CGS §16-244u(a)(7)(B))
185. Most of the site consists of areas mapped as prime farmland soils by the NRCS. Within the project limits, approximately 21.3 acres are classified as prime farmland soils. The property has been used primarily as agricultural land over the past century. (EWSO 1, Tab B, pp. 4, 26, 27)
186. Currently, approximately 66.7 acres of the property is in agricultural production. (EWSO 2, response 9)
187. EWSO would use minimally intrusive methods for construction. Pile-driven mounts would be used for the installation of the solar panels and associated equipment, limiting the need for substantial grading. In areas that require excavation, such as equipment pads, stormwater basin, access roads, swales, etc.,

- topsoil would be segregated and stockpiled for reuse or spread as top dressing for re-establishing vegetation. (EWSO 1, Tab B, p. 26)
188. EWSO would implement a grazing program for vegetation maintenance within the fenced perimeter of the project. A flock of sheep would be brought to the site and maintained under the care of a local farmer annually from April/May through October/November. (EWSO 1, Tab B, pp. 26, 27)
189. Approximately three sheep per acre would be brought to the site for grazing, for a total of approximately 72 sheep on the site during a given growing season. The sheep would be kept in different paddocks with about three to four paddocks on the site expected. The sheep would be rotationally grazed from paddock to paddock by a flock manager or sheep farmer to manage vegetation and prevent overgrazing. (Tr. 1, pp. 19, 20)
190. The paddock areas would likely be separated by a temporary electric fence to maintain the sheep within the paddock. (Tr. 1, p. 21)
191. EWSO has engaged Agrovoltic Solutions and Hillview Farm to ensure the sheep have all necessary housing, feeding and watering. The Petitioner is also developing a seeding plan that would provide suitable forage for the sheep. (EWSO 2, response 7)
192. EWSO would develop a plan with the sheep farmers for evacuation of the sheep during an emergency situation. (Tr. 1, p. 102)
193. The Petitioner would provide signage stating that live animals are present within the array area during grazing season. (EWSO 2, response 7)
194. The fenced area would be seeded with low-growing grasses and forbs suitable for sheep and pollinator-friendly species. (EWSO 1, Tab B, p. 27)

Forest and Parks

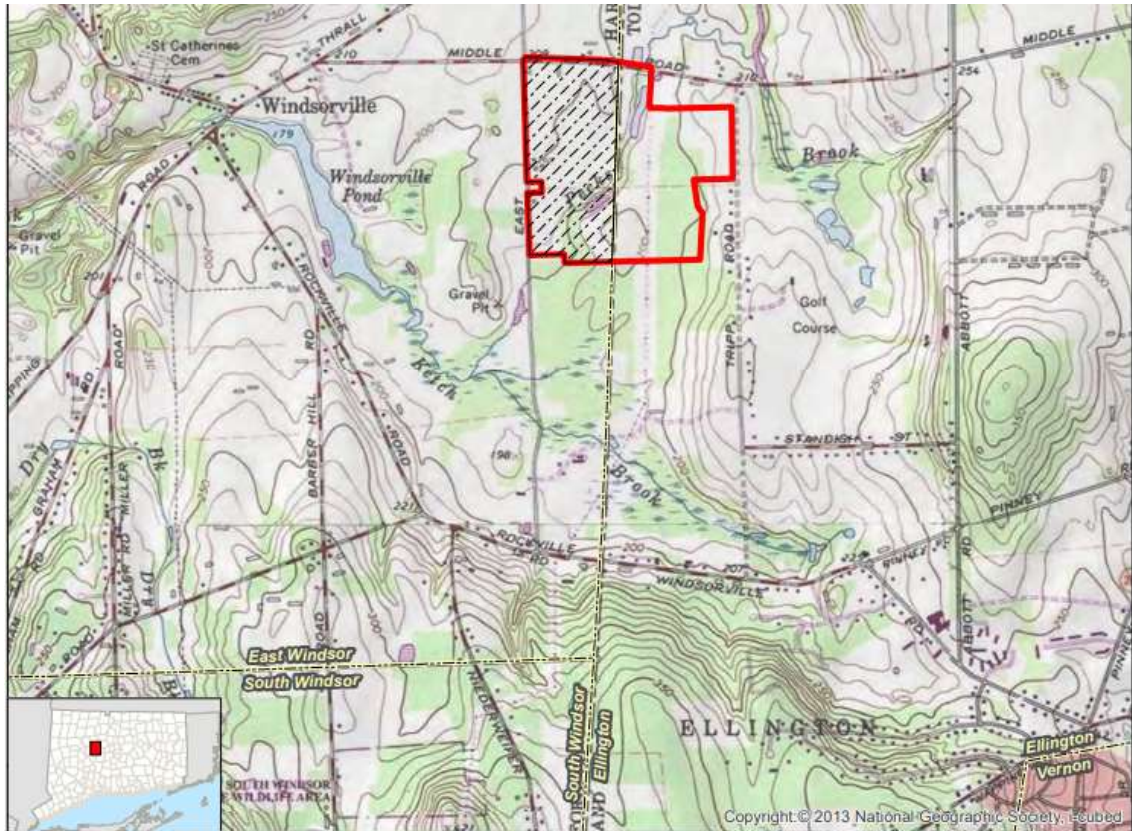
195. No state parks or forests are located adjacent to the site. (EWSO 1, Tab B, Appendix H)
196. There is no mapped core forest at the proposed site. (EWSO 1, Tab B, p. 12)
197. No tree clearing is proposed for the development of the site. (EWSO 1, Tab B, p. 13)

Neighborhood Concerns

198. Under CGS § 16-50p, the Council is not obligated to take into account the status of property values. (CGS §16-50p; Tr. 4, pp. 6-7; *Westport v. Conn. Siting Council*, 47 Conn. Supp. 382 (2001), *affirmed*, 260 Conn. 266 (2002); *Goldfisher v. Conn. Siting Council*, 2005 Conn. Super. LEXIS 306 (2005), *affirmed*, 95 Conn. App. 193 (2006))
199. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a remote public comment hearing session on March 2, 2021 at 6:30 p.m. via Zoom conferencing. (Record; Tr. 2, p. 1)
200. No limited appearance statements were made at the remote public comment hearing session. (Tr. 2)

201. The Council did not receive any written limited appearance statements regarding the proposed facility.
(Record)

Figure 1 - Site Location



- Legend**
- Property
 - Site
 - Municipal Boundary

Figure 1
Site Location Map
Proposed Solar Facility - East Windsor Solar One
341 East Road
East Windsor, Connecticut

East Windsor Solar One, LLC
 ALL-POINTS
TECHNOLOGY CORPORATION

Map Notes
Site Map Source: USGS 7.5 Minute Topographic
Quadrangle Maps, Broad Brook (1984), CT
Map Scale: 1 inch = 2,000 feet
Map Date: August 2020

2,000 1,000 0 2,000
Feet

(EWSO 1, Tab B, p. 2)

Figure 2- Existing Conditions



**Figure 2
Existing Conditions Map**
Proposed Solar Facility - East Windsor Solar One
341 East Road
East Windsor, Connecticut
East Windsor Solar One, LLC

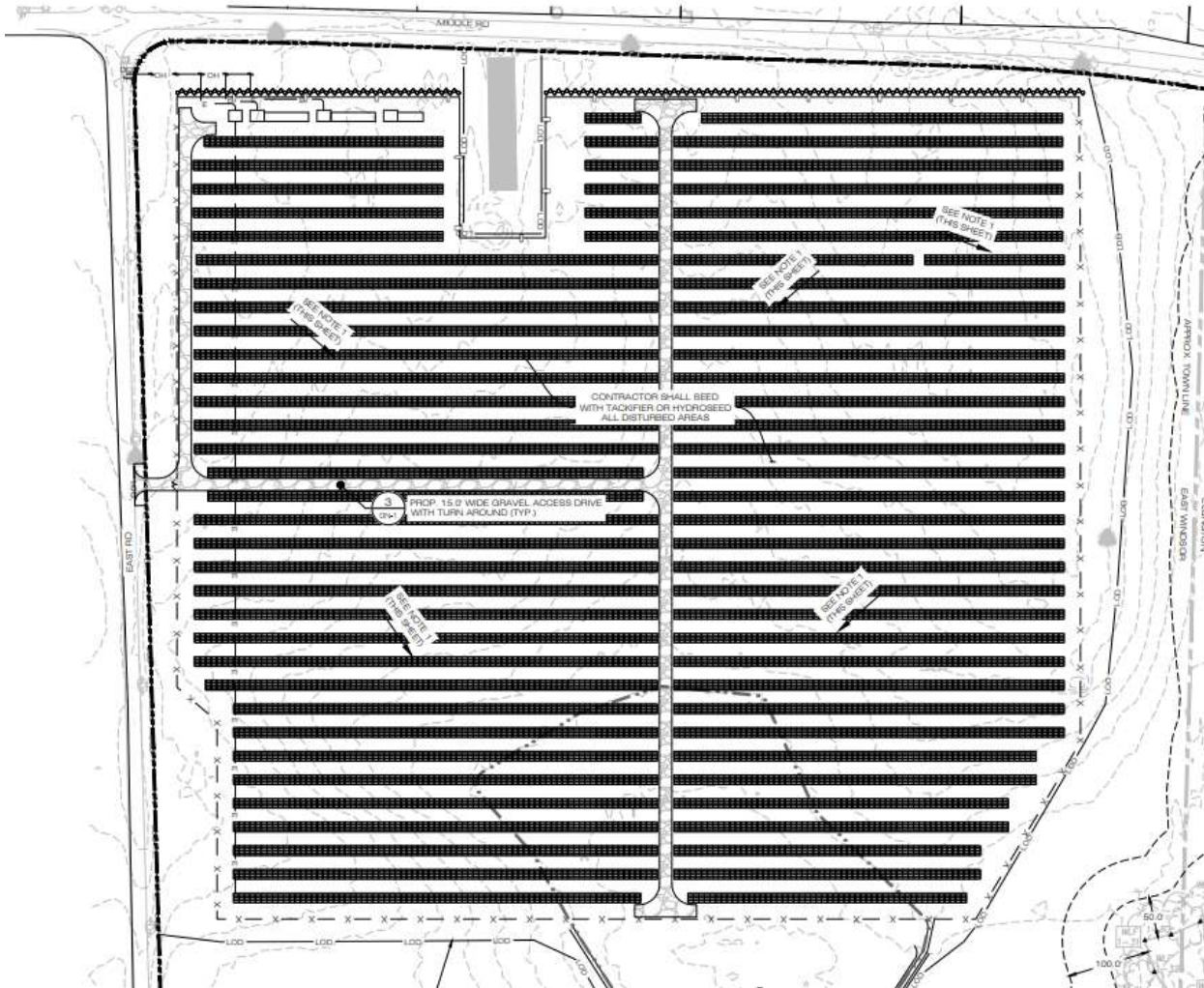
(EWSO 1, Tab B, p. 4)

Figure 3 – Proposed Conditions



(EWSO 1, Tab B, p. 9)

Figure 4 – Project Layout



(EWSO 1, Tab B, Appendix A)

STATE AGENCY COMMENTS



STATE OF CONNECTICUT

COUNCIL ON ENVIRONMENTAL QUALITY

Keith Ainsworth

Alicea Charamut

David Kalafa

Lee E. Dunbar

Alison Hilding

Kip Kolesinskas

Matthew Reiser

Charles Vidich

Peter Hearn
Executive Director

September 4, 2020

Melanie Bachman, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: PETITION NO. 1426 - East Windsor Solar One, LLC petition for a declaratory ruling 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 Ms. Bachman:

The Council on Environmental Quality ("the Council") supports the development of clean, renewable energy technologies on appropriate sites in Connecticut. The Council notes the recent increase in Petitions for solar energy projects that include co-location of grazing activities among the proposed solar panels. In the past two months, four Petitions (1421, 1422, 1424, 1426) proposed sheep grazing among the installed panels. At its meeting on August 26th, the Council voted to make it explicit, in its comments on those Petitions, and possibly others to follow, that the co-location of ancillary agricultural activity at solar energy sites is not a remedy for the loss of prime farmland that the legislature intended to be preserved when it enacted PA 17-218.¹ This Petition proposes the use of 29 acres of farmland.

For a solar energy installation to have no impact on the status of prime farmland soils on the site, decommissioning and restoration would have to be successful at the end of the anticipated twenty-five year service life of the solar panels. To the Council's knowledge, long-term soil preservation has not been attempted in Connecticut, nor has removal of the supports for the panels and the buried electrical conduits and other soil disturbances. Decommissioning and restoration is an unproven promise. At the expiration of the lease term, negotiation of a new contract to take advantage of the installed solar infrastructure is as likely as is a return to agriculture. The probability that the site will never return to farming needs to be acknowledged.

The Council is concerned about the scale of the statewide conversions of active, or potentially usable, farmland for renewable energy installations. These conversions have been most notable in the Connecticut River Valley, which is its own unique ecological area and a United States Department of Agriculture (USDA) designated resource area² because of the excellent soils and microclimate. This farmland usually contains prime farmland soils, which are the soils that are "best suited to producing food, feed, forage, fiber and oilseed crops". Even if the addition of grazing among solar panels might assist with the

¹ House Session Transcript for 06/07/2017, and Senate Session Transcript for 06/06/2017, at [2017STR00606-R00-TRN.HTM](https://www.ct.gov/ceq).

² USDA NRCS *Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin*, at https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_050898.pdf.

short-term viability of an individual farm, conversion to a solar facility can have negative regional impacts. It has been estimated that nearly 30 percent of the State's farmers depend on land that is leased.³ Loss of access to those fields can severely affect the farms and disrupt their business viability, business succession planning, and even their ability to implement nutrient management plans (where a land base is needed to apply manure at safe rates). Loss of leased fields decreases farm density, and the suppliers of services and users of products are likely to move or close. Consideration of such cumulative and regional impacts by the Siting Council is within its authority under CGS Sec. 16-50p(a).

Both the preservation of farmland and development of renewable energy sources are essential to the State's future. It is at the Siting Council that these priorities intersect and sometimes conflict. Since June of 2020, this Council has reviewed six proposals to utilize farmland for renewable energy projects. The total farm acreage of active or potentially usable farmland in those five Petitions and one Application is over 330 acres of active or potentially usable farmland. Inclusion of the all projects reviewed by this Council in the past eight months brings the total to over 540 acres of Connecticut farmland that were the target for siting of solar energy facilities. By comparison, the total acreage acquired for preservation by the State for all of 2019 was 773 acres. The continuing accretion of multiple individual decisions to site solar facilities on productive agricultural land has cumulative regional economic and ecological implications that go beyond the loss of prime soils. For example, there are many permanent and migratory species depend on Connecticut's farm fields for habitat. The Council urges the Siting Council to weigh the cumulative regional economic and ecological factors when assessing the scale and location of each proposed siting.

The Council also has the following comments regarding access roads and site visibility:

The Petitioner proposes to excavate the topsoil along the proposed service roads and disperse this material on site. Even though the Petitioner states that the property owner "may" retain the service roads after the proposed facility is removed, the Council recommends that the Petitioner consider utilizing an alternative method for constructing the service roads to minimize impacts on prime farmland soils. The Council suggests that the Petitioner consider preserving the topsoil in place, install a non-woven geotextile fabric on the ground surface, and then spread a layer of processed stone over the geotextile to provide soil separation. During decommissioning, if the property owner decides not to use the proposed service roads, the processed stone can then be stripped away exposing the geotextile. The geotextile can then be removed revealing the original soil surface. The Council also recommends that the decommissioning plan include provisions for the compacted soil, beneath the service roads, be ripped up with a subsoiler plow to loosen it before being returned to crop production.

The Council notes that the Petitioner proposes to install "privacy slats" within the fence and vegetation along the northern border of the proposed site with Middle Road. The Council also recommends that the Petitioner consider extending the privacy slats and vegetation southerly from Middle Road along East Road an appropriate distance to limit the visual impact looking east from Middle Road.

Thank you for your consideration of these comments. Please do not hesitate to contact the Council if you have any questions.

Sincerely,



Peter Hearn, Executive Director

³ UCONN webinar *Improving Access to Farmland in Connecticut*, Rachel Murray and Kip Kolesinskas 2015, at <https://www.youtube.com/watch?v=nvN1WJa7mgM&feature=youtu.be>



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION



2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546

Phone:

September 15, 2020

Ms. Melanie Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Dear Ms. Bachman:

Subject: Petition 1426
4.9 MW AC Solar Photovoltaic Electric Generating facility
341 East Road
Town of East Windsor

The Department of Transportation has reviewed the above-mentioned Petition and has no comments.

Should you have any questions, please contact Ms. Latoya Smith, Utility Engineer (Utilities) at Latoya.Smith@ct.gov.

Very truly yours,

 Digitally signed by Andrzej Mysliwicz
DN: C=US
E=Andrzej.Mysliwicz@ct.gov,
OU=DR-Andrzej Mysliwicz
Date: 2020.09.17
10:48:23-04'00'

Andrzej Mysliwicz
Transportation Supervising Engineer
Division of Facilities and Transit
Bureau of Engineering and Construction

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH



Deidre S. Gifford, MD, MPH
Acting Commissioner

Ned Lamont
Governor
Susan Bysiewicz
Lt. Governor

Drinking Water Section

January 29, 2021

Melanie Bachman
Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Petition 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, Connecticut and associated electrical interconnection.

Dear Ms. Bachman:

The Drinking Water Section, on behalf of the Department of Public Health Commissioner, has reviewed the application associated with the above noted petition for potential impacts to any sources of public drinking water supply. This project does not appear to be in a public water supply source water area; therefore, the Drinking Water Section has no comments at this time.

Thank you for the opportunity to comment on this petition. If you have any questions, you may contact Rich Iozzo at (860)509-7333.

Sincerely,

A handwritten signature in blue ink that reads "Lori J. Mathieu '21".

Lori J. Mathieu
Public Health Section Branch Chief
Environmental Health and Drinking Water Branch

C: Craig J. Patla, Connecticut Water Company
