STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Web Site: portal.ct.gov/csc

VIA ELECTRONIC MAIL

April 8, 2021

TO: Service List, dated January 21, 2021

FROM: Melanie Bachman, Executive Director MAB

RE: **PETITION NO. 1422** - Greenskies Clean Energy, 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 4.99-megawatt AC solar photovoltaic electric generating facility to be located at Mulnite Farms, Inc. off Barber Hill Road west of the intersection with Rockville Road, East Windsor, Connecticut and associated electrical interconnection.

As stated at the hearing on February 23, 2021, after the Connecticut Siting Council (Council) issues its draft findings of fact, parties and intervenors may identify errors or inconsistencies between the Council's draft findings of fact and the record; however, no new information, evidence, argument, or reply briefs will be considered by the Council.

Parties and Intervenors may file written comments with the Council on the Draft Findings of Fact issued on this matter by April 15, 2021.

MB/MP/lm

Enclosure

PETITION NO. 1422 – Greenskies Clean Energy, 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 4.99-megawatt AC solar photovoltaic electric generating facility to be located at Mulnite Farms, Inc. off Barber Hill Road west of the intersection with Rockville Road, East Windsor, Connecticut and associated electrical interconnection.	}	Connecticut
	}	Siting
	}	Council
		April 1, 2021

DRAFT Findings of Fact

Introduction

1. On July 20, 2020, Greenskies Clean Energy, LLC (GCE or Petitioner) submitted a petition to the Connecticut Siting Council (Council), pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 4.99-megawatt AC solar photovoltaic electric generating facility to be located at Mulnite Farms, Inc. off Barber Hill Road west of the intersection with Rockville Road, East Windsor, Connecticut, and associated electrical interconnection. (GCE 1, pp. 1 and 4)

2. The party in this proceeding is GCE. (Transcript 1 – February 23, 2021, 2:00 p.m. [Tr. 1], p. 6)

3. GCE is a Connecticut limited liability company with principal offices at 127 Washington Avenue, North Haven, Connecticut. GCE develops, finances, constructs, and maintains clean, renewable energy projects throughout the United States. (GCE 1, p. 5)

4. GCE would construct and own the proposed facility. (GCE 1, p. 5)

5. The proposed project would be a "grid-side distributed resources" facility under CGS §16-1(a)(37). (CGS §16-1(a)(37); GCE 1, pp. 4 and 10)

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); GCE 1, pp. 4-5)

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 within the State of Connecticut. (CGS § 16a-35k)

Procedural Matters

8. Upon receipt of the petition, the Council sent a letter to the Town of East Windsor (Town) on July 21, 2020 as notification that the petition was received and is being processed, in accordance with CGS § 16-50k(a), and invited the Town to contact the Council with any questions or comments by August 19, 2020. (Record)

9. On December 1, 2020, the Town submitted correspondence requesting a public hearing on the proposed project. (Record)

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 of the Council, 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. (Council Administrative Notice Item No. 73)

14. On March 14, 2020, 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. (Record; 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 The Journal Inquirer on January 16, 2021. (Record)

18. Pursuant to Governor Lamont's EO 7B, as extended, and CGS §16-50m, on January 15, 2021, the Council sent a letter to the Town to provide notification of the scheduled remote public hearing via Zoom conferencing and to invite the municipality 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. (Record)

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 September 21, 2020, in lieu of an in-person field review of the proposed site, the Council requested that GCE submit photographic documentation of site-specific features into the record intended to serve as a "virtual" field review of the site. On October 5, 2020, GCE submitted such information in response to the Council's interrogatories. (GCE 3, response 46)

22. On January 27, 2021, the Council held a pre-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-Hearing Conference Memoranda, dated January 21, 2021 and January 27, 2021)

23. Pursuant to Regulations of Connecticut State Agencies (RCSA) § 16-50j-21, on February 5, 2021, GCE installed a four-foot by six-foot sign at the proposed site access driveway on Barber Hill Road. The sign included information about the proposed facility, the public hearing date and contact information for the Council. (GCE 7)

24. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a remote public hearing on February 23, 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; Tr. 1, p. 1; Transcript 2- February 23, 2021, 6:30 p.m. [Tr. 2], p. 95)

25. In compliance with Governor Lamont's EO 7B:
    a) The public had the ability to view and listen to the remote public hearing 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 February 24, 2021 and February 26, 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 hearing; 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 hearing.

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

Municipal Consultation

26. On February 18, 2020, GCE met with First Selectman Bowsza and other Town officials to introduce the project. GCE met with Leonard Norton, Director of Public Works/Town Engineer and Joseph Sauerhoefer, Operations Manager for the Town on February 25, 2020 to review the site plans and proposed stormwater design. (GCE 1, p. 18)

27. On March 10, 2020, GCE mailed invitations to neighbors to invite them to an informational meeting on the project to be held at the Town Hall on March 23, 2020. The informational meeting was cancelled in light of the prohibition on large gatherings due to the COVID-19 pandemic. Accordingly, cancellation notices were mailed on March 17, 2020. (GCE 1, p. 18)

28. In lieu of a public gathering, GCE provided contact information to all invitees and offered to speak directly with neighbors via telephone or email to answer questions about the project. (GCE 1, p. 18)

29. On May 4, 2020, GCE held a site walk with First Selectman Bowsza, Mr. Norton, and Mr. Sauerhoefer to review the site plans and consider such feedback in the final design. The review during the site walk did not result in changes to the proposed project. (GCE 1, p. 18; Tr. 1, p. 15)

30. Pursuant to RCSA §16-50j-40, notice of the petition was provided to all abutting property owners by certified mail. Notice was provided to abutting property owners on June 2, 2020, and on June 16, 2020 to correct a directional error in the description of the site. (GCE 2)

31. On June 16, 2020, GCE provided notice to all federal, state and local officials and agencies listed in RCSA §16-50j-40. (GCE 2)

32. GCE did not receive any additional feedback from the Town regarding the proposed project subsequent to the Town's December 1, 2020 request for a hearing. (Tr. 1, p. 15)

State Agency Comment

33. Pursuant to RCSA §16-50j-40, on July 21, 2020 and January 15, 2021, the following state agencies were solicited by the Council 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); Connecticut Airport Authority (CAA); and State Historic Preservation Office (SHPO). (Record)

34. The Council received comments from the CEQ and CAA on August 28, 2020 and January 20, 2021, respectively, which are attached hereto. (CEQ Comments dated August 28, 2020; CAA Comments dated January 20, 2021)

35. The following agencies did not respond with comment on the petition: DEEP, DOAg, DPH, PURA, OPM, DECD, DESPP, DCP, DOL, DAS, DOT, and SHPO. (Record)

36. 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

37. 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 proposed projects using renewable fuels, as well as smaller, more innovative transmission proposed projects emphasizing reliability. (2013 CES; CGS §16a-3d)

38. 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)

39. 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)

40. 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)

41. 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)

42. 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)

43. Section 7 of PA 08-98 required the Governor's Steering Committee on Climate Change to establish an Adaptation Subcommittee to evaluate the proposed 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)

44. 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 Procurements

45. GCE intends to sell the energy produced by the project via Virtual Net Metering (VNM), but has not entered into any VNM agreements with potential off-takers. (GCE 3, response 2; Tr. 1, pp. 16, 85-86)

46. The project was awarded three low emission renewable energy credit (LREC) contracts through a competitive request-for-proposal (RFP) process for approximately 1.666 MW each. GCE entered into three 20-year purchase contracts with Eversource for the LRECs. The delivery term start date for all three contracts is April 1, 2021. This start date does not necessarily represent a firm deadline for commissioning the facility, but LREC revenues cannot be earned until the facility is commissioned/operational. (GCE 1, p. 4; Tr. 1, pp. 16-18)

47. 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. ZREC contracts are limited to 1 MW and LREC contracts are limited to 2 MW. (CGS §16-244r; Tr 1, p. 33; Council Administrative Notice Item No. 53 – 2014 DEEP Integrated Resources Plan, Appendix D)

48. GCE does not intend to participate in the ISO-NE Forward Capacity Auction. (GCE 3, response 3)

Public Benefit

49. 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(c))

50. The project would be a distributed energy resource facility as defined in CGS §16-1(a)(49). CGS §16a35k 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

51. 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 proposed project will not materially affect the status of such land as prime farmland or DEEP represents, in writing, to the Council that such proposed project will not materially affect the status of such land as core forest." (CGS §16-50k)

52. 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)

53. By letter dated August 20, 2020, DEEP's Bureau of Natural Resources determined that the proposed solar facility would not have a material impact on the status of core forest. (August 20, 2020 DEEP CGS §16-50k No Material Impact to Core Forest Determination Letter)

54. By letter dated August 27, 2020, DOAg determined that the proposed solar facility would not have a material impact on the status of prime farmland. (August 27, 2020 DOAg CGS §16-50k No Material Impact to Prime Farmland Determination Letter)

55. 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

56. GCE selected the site based on the following factors:
    a) Minimize impacts to core forest;
    b) Minimize impacts to prime farmland soils;
    c) Minimize impacts to wildlife;
    d) Minimize impacts on nearby residents;
    e) Proximity to electrical infrastructure; and
    f) Cost considerations.
    (GCE 1, p. 8)

57. 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. 76 - *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007))

Site

58. 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))

59. The proposed site is irregularly shaped and located on a 39-acre parcel with frontage to the east along Rockville Road and Barber Hill Road. The site is currently used as active farmland with existing farm roads and three tobacco barns: one near the northern limits of the site and two near the southern boundaries of the site. (GCE 1, p. 4; GCE 1, Figure 2 – Proposed Project Area Aerial; GCE 1, Figure 4 – Tax Parcel Map)

60. The site parcel is zoned Agricultural/Residential A-1 and is a portion of approximately 104 acres of contiguous farmland currently being used by Mulnite Farms, Inc. (Mulnite Farms) to grow shade tobacco and corn. (GCE 1, pp. 4, 7)

61. The fields located to the north and south of the site parcel are part of Mulnite Farms. To the west of the site parcel, there is an electric transmission line right-of-way (ROW) and single-family residences. Barber Hill Road and Rockville Road are located directly to the east of the site parcel and host residential properties on the opposite side. (GCE 1, p. 8 and Figure 2 – Proposed Project Area Aerial; GCE 1, Appendix I – Wetland Delineation Report, Figure 1)

62. The site's topography slopes gently north across the site limits. The site ranges from approximately 237 feet above mean sea level (AMSL) in the south to approximately 201 feet AMSL in the north. (GCE 1, p. 4 and Figure 5 – Site Survey)

63. Access to the site parcel is via an existing dirt access drive off of Barber Hill Road which extends west onto the parcel. (GCE 1, p. 9 and Figure 2 – Proposed Project Area Aerial)

Project Description

Solar Array

64. Approximately 19,968 fixed bifacial solar panels rated at approximately 395 Watts direct current (DC) each, would be installed on the site. (GCE 1, Appendix B – Solar Panel Specifications Sheet; GCE 3, Tab A – Revised Site Plans, Drawing C-3.0)

65. The panels would be arranged two-high in a portrait orientation facing the south and set at a 30-degree angle, extending to an approximate height of 8 feet 7 inches above grade and approximately 2 feet above grade at the bottom edge. (GCE 1, p. 9; GCE 3, response 18; GCE 3, Tab A – Revised Site Plans, Drawing C-3.0)

66. The solar panels would be installed on a steel racking system with posts driven approximately 6 to 12 feet into the ground via a track-mounted pile driver. Ground screws and/or pre-drilling is anticipated to be utilized in the event that ledge is encountered. (GCE 1, p. 9; GCE 3, responses 19 and 52)

67. Solar array rows (panel edge to panel edge) would be spaced 14.6 feet apart. Once installed, the horizontal width of the panel row would measure approximately 11.3 feet (from bottom edge to top edge at 30 degree angle). (GCE 3, Tab A – Revised Site Plans, Drawing C-6.1)

68. Wiring that connects the panels to the inverters would be installed on both the underside of the panels and underground in order to protect it from ultraviolet light and weather exposure. The wiring would be rated for the environment and installed per the National Electrical Code (NEC). Metal casing, high strength plastic mesh, or another alternative would be included in the final design to protect the wiring from sheep. (GCE 3, response 21)

69. Three approximately 577 square foot equipment pads would be installed in the southern portion of the solar field near the access drive. (GCE 3, Tab A – Revised Site Plans, Drawing Nos. C-3.1 and C-3.2)

70. The proposed project would be enclosed by a 7-foot high chain link fence in compliance with the NEC. The fence includes three access gates and a 6-inch wildlife gap at the bottom. (GCE 3, Tab A – Revised Site Plans, Drawing No. C-6.1; GCE 1, p. 10)

71. The solar panels would be approximately 14 to 89 feet from the solar field perimeter fence, depending on location. (GCE 3, Tab A – Revised Site Plans, Drawing Nos. C-3.1 and C-3.2)

72. The nearest off-site residence to the project perimeter fence is located 165 feet to the east at 62 Rockville Road. (GCE 3, response 9)

Site Access

73. The project would be accessed by a new approximately 2,800-foot long, 14.6-foot wide permanent gravel access road that extends westward from Barber Hill Road into the site (near the existing access entrance) and turns to the north in two locations to serve the solar array areas. Two "hammer head" turnarounds would be located in the northern limits of the site. (GCE 1, p. 9; GCE 3, Tab A – Revised Site Plans, Drawing Nos. C-3.1 and C-3.2)

74. The proposed access drive would be prepared on subgrades with a 12-inch thick layer of processed stone and would match existing grades to the extent feasible. (GCE 1, p. 9)

75. An improved stone driveway apron would be constructed at the site driveway entrance. (GCE 1, p. 9; GCE 1, p. 9; GCE 3, Tab A – Revised Site Plans, Drawing No. C-3.2)

Electrical Interconnection

76. The project is comprised of three, independently-metered systems (of about 1.666 MW each) resulting in a total design capacity of approximately 4.99 MW AC, and after assumed losses, it would provide 4.9 MW AC output at the electric distribution grid interconnection. (GCE 1, p. 10; GCE 3, responses 10 and 24)

77. The proposed electrical interconnection would run underground from the three concrete equipment pads in the solar array area to the east to the proposed switchgear location. The 13.8-kilovolt electrical interconnection would then continue underground until it reaches the three riser poles* located in the southeastern limits of the site. From the riser poles, the interconnection route would continue overhead to connect to electrical distribution on Barber Hill Road.

*There would be one riser pole for each separately metered system, and each would reach a height of about 34 feet above ground level.

(GCE 3, response 24; Tr. 1 pp. 17-18; GCE 3, Tab A – Revised Site Plans, Drawing Nos. C-3.1 and C-3.2)

78. The existing electrical distribution on Barber Hill Road is single-phase. GCE anticipates that Eversource would construct a three-phase distribution line extension of approximately 0.21-mile north along Barber Hill Road and perform minor upgrades to a circuit breaker at Barbour Hill Substation. The demarcation point (or location of change of control) from GCE to Eversource would be the meters on the riser poles. Thus, the permitting of the line extension/upgrade along Barber Hill Road and upgrades at Barbour Hill Substation would be the responsibility of Eversource. (GCE 3, responses 25 and 26; Tr. 1, p. 38)

79. A combined impact study (taking into account the three interconnections) was conducted from January through May 2020. As a result of such study, Eversource concluded that the project would not have an operational impact on the distribution system. (GCE 1, p. 10; Tr. 1, pp. 31, 34)

80. Eversource provided interconnection agreements to GCE on May 1, 2020. (GCE 1, p. 10)

Project Construction

81. The timing of construction for the project would depend on final regulatory approvals. GCE anticipates commencing construction during summer 2021 (approximately early June) and completing construction by year-end 2021. (GCE 1, p. 11; Tr. 1, pp. 43, 72)

82. Construction sequencing would be performed as follows:

a) Install stabilized vehicle construction entrance off of Barber Hill Road;
b) Install silt fence;
c) Install temporary sediment traps;
d) Seed and protect disturbed soil around sediment traps;

e) Install other erosion and sedimentation controls to prevent sediment from discharging off site;
f) Construct access roads;
g) Perform earthwork on site, install perimeter fence;
h) Install piles for racking;
i) Re-seed and re-grade areas disturbed by construction with the areas where the racks would be installed;
j) Install racking and other equipment;
k) Upon completion of construction, re-seed all disturbed areas and install final landscaping; and
l) After site is stabilized and inspected, remove temporary erosion and sedimentation controls.

(GCE 3, Tab A – Revised Site Plans, Drawing No. C-5.0)

83. Site disturbance including all site features, such as solar arrays, stormwater management features and access roads would total approximately 32 acres. (GCE 3, Tab A – Revised Site Plans, Drawing No. C-3.0)

84. No re-grading within the limits of the solar array areas is proposed with the exception of the permanent swales or permanent stormwater basins. (GCE 3, Tab A – Revised Site Plans, Drawing No. C-4.0)

85. GCE would seek to stabilize the site prior to construction and maintain stabilization during construction to the extent it complies the requirements of its DEEP Stormwater Permit. If GCE's schedule allows additional time for stabilization, GCE would avail itself of that option. If GCE's schedule cannot accommodate additional time for stabilization, GCE would utilize appropriate methods to expedite the stabilization process, e.g. erosion control blankets, hydroseeding, or other methods. (Tr. 1, pp. 72-74)

86. Project construction would not require any cut to construct the access roads. Approximately 1,600 cubic yards of crushed stone would be placed on top of existing material. (GCE 3, response 50e)

87. No cut or fill is expected to be required for the solar field. Approximately 10,000 cubic yards of material would be excavated to construct the stormwater basins and swales. The material would be either spread on-site or handled by the landowner. If the material is spread on-site by GCE, it would be distributed in the central portion of the array area to a depth not exceeding one foot. (GCE 3, response 50f; GCE 3, Tab A – Revised Site Plans, Drawing No. C-4.1)

88. Site grading would be limited to excavation for stormwater basins and to spread any resulting excess material. No re-grading within the limits of the solar arrays is proposed. All soil would remain on-site per GCE's consultation with DOAg. (GCE 3, response 50a; GCE 3, Tab A – Revised Site Plans, Drawing No. C-4.0)

89. Construction hours would be Monday through Saturday from 7:00 AM to 5:00 PM. (GCE 1, p. 12)

Traffic

90. Project equipment deliveries include, but are not limited to, the following:
a) Module deliveries – approximately 3 trucks per MW;

b) Racking deliveries – approximately 3 trucks per MW;
c) Electrical deliveries – approximately 4-5 trucks per 2 MW;
d) Other equipment & mobilization – 5-6 trucks; and
e) Heavy earth moving equipment – 5-6 trucks per day maximum for up to 5 MW.

(GCE 1, Appendix C – O&M Plan, Traffic Flow Plan)

91. The majority of truck deliveries would occur within the first three weeks of mobilization. Trucks would also be necessary for construction demobilization. (GCE 1, Appendix C – O&M Plan, Traffic Flow Plan)

92. Construction vehicles to be used at the project include standard construction trucks, small earth moving equipment, and all-terrain forklift equipment. (GCE 1, Appendix C – O&M Plan, Traffic Flow Plan)

93. GCE would consult with the Town regarding construction traffic prior to the commencement of construction activities. (GCE 1, Appendix C – O&M Plan, Traffic Flow Plan)

Facility Operation

94. The projected capacity factor for the project is approximately 15.2 percent on an AC MWh to DC MWh basis. (GCE 3, response 11)

95. The 395-Watt bifacial module has an efficiency factor of approximately 17.7 percent*.

*The wattage and efficiency are both based on the front side of the panel only and exclude any gains from the back side of the panel due to bifacial effects.

(GCE 1, p. 9; GCE 1, Appendix B – Solar Panel Specifications Sheet)

96. There project has not been designed to accommodate a potential battery storage system. (GCE 3, response 13)

97. The project is not designed to serve as a microgrid. The interconnection application does not include batteries or any infrastructure necessary to accommodate microgrid function. (GCE 3, response 15)

Operations and Maintenance

98. GCE provided a post-construction Operations and Maintenance Plan (O&M Plan) that includes provisions for both physical site features and structural and electrical components that would occur at certain time intervals. (GCE 1, Appendix C – O&M Plan)

99. The main topics of the post-construction O&M Plan include, but are not limited to, the following:
a) Monitoring System Data;
b) General Site Inspection;
c) Mechanical System Inspection;
d) DC & AC Electrical System Inspection;
e) Inverter Inspection;
f) Stormwater Management System Inspection; and
g) Data Acquisition System Inspection.

(GCE 1, Appendix C – O&M Plan)

100. A Post-construction Stormwater Control inspection checklist has been developed and includes monthly stormwater management basin inspections for the first three months and after any rain event exceeding 0.5-inch and semi-annual inspections thereafter.

(GCE 1, Appendix G, Stormwater Report, Appendix C – Long Term Stormwater Operation and Maintenance Measures)

101. Upon completion of the inspections, reports would be developed to summarize the information, and noted deficiencies would be photo-documented. Corrective repairs would be implemented if necessary. (GCE 1, Appendix C – O&M Plan, pp. 2-3)

102. The solar modules are not expected to require periodic cleaning. If panel cleaning is required due to unforeseen conditions, GCE would only utilize water for cleaning purposes. (GCE 3, response 58)

103. GCE does not anticipate the need the remove snow from the solar panels. Although the accumulation of snow would affect energy output, this has been taken into account by GCE in its projected energy output for the facility. (GCE 1, p. 56)

104. Replacement modules would not be stored on-site. Damaged panels would be detected by GCE's internal operations and maintenance team using a 24-hour monitoring system. (GCE 3, response 60)

105. Vegetation within the project area would be maintained via sheep grazing throughout the growing season. Mowing would be expected to be performed a few times per year along the eastern fence line to maintain vegetation planted for screening. (GCE 3, response 57)

Project Decommissioning

106. The project has a lifespan of 20 years, but it could operate for approximately 30 years or more. (GCE 1, Appendix D – Decommissioning Plan, p. 2)

107. GCE provided a decommissioning plan that includes facility infrastructure removal and site restoration provisions. Project decommissioning would include the removal of all facility components such as solar arrays, racks, inverters, pads, and any interconnection facilities on the property. Concrete pads would be broken and removed to a depth of two feet below grade. The remaining excavation would be filled with sub-grade material compatible with the surrounding area. (GCE 1, Appendix D – Decommissioning Plan, pp. 2-4)

108. 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. Specifically, GCE would remove the facility within six months of the end of the project's life per the lease agreement. (GCE 1, Appendix D – Decommissioning Plan, p. 4; GCE 3, response 4)

109. Following decommissioning activities, the sub-grade material and topsoil would be de-compacted and restored to a density and depth consistent with surrounding areas. If the subsequent use for the site would involve agriculture, a deep till of the site would be undertaken. Affected areas would be inspected, thoroughly cleaned, and all constructed-related debris would be removed. Disturbed areas would be re-seeded to promote re-vegetation, unless the area is to be immediately redeveloped. All restored areas would include, as necessary, leveling, terracing, mulching, and

other steps to prevent soil erosion and ensure establishment of grasses and forbs and control weeds and pests. (GCE 1, Appendix D – Decommissioning Plan, p. 4)

110. Decommissioning costs and materials determined to be recyclable are based on current data and trends. These parameters would vary due to the lifespan of the project of at least 20 years. (GCE 1, Appendix D – Decommissioning Plan, p. 2)

111. GCE has not made a final selection regarding the solar panels to be used for the project, so it does not know whether the panels would pass the Toxicity Characteristic Leaching Procedure (TCLP) test or not. Notwithstanding, GCE notes that, regardless of what modules it selects, GCE will commit to using modules that do not contain lead, arsenic, selenium, cadmium, per- and polyfluoroalkyl substances (PFAS), or other hazardous materials or heavy metals except for lead used in solder. (GCE 6, response 63)

Public Safety

112. The proposed project would comply with the NEC, the National Electrical Safety Code (NESC) and the National Fire Protection Association (NFPA) code. (GCE 3, response 27)

113. GCE would host a site walk, training, and review of the project with the appropriate Town officials. (GCE 3, response 32a)

114. GCE would coordinate with Town emergency responders regarding access to the facility and the emergency shut-off. The entire facility can be shut down via the main switch. Emergency responders would be provided keys or the code to access all gates onsite. (GCE 3, response 32b and 32d; GCE 1, Appendix D – Decommissioning Plan, p. 4)

115. Annual emergency response training would be conducted with the Town's emergency service providers. (GCE 1, Appendix D – Decommissioning Plan, p. 4)

116. The facility and any alarms would be remotely monitored by GCE's Operations and Maintenance team on a 24/7 basis. (GCE 1, p. 13)

117. The proposed project is not located within a Federal Emergency Management Agency-designated 100-year or 500-year flood zone. (GCE 1, response 23; GCE 1, Appendix G, Stormwater Report, p. 9)

118. The DEEP Dam Safety Division reviewed the proposed project and determined that the three proposed stormwater basins would not qualify as dams because they are not designed to impound water above grade. (GCE 3, response 49)

119. The nearest federally-obligated airport is Bradley International Airport (BDL) located in Windsor Locks approximately 7.65 miles west-northwest of the proposed site. (GCE 3, response 30; Council Administrative Notice Item No. 97 – State of Connecticut Map)

120. By letter dated November 4, 2020, the Federal Aviation Administration (FAA) issued its Determination of No Hazard to Air Navigation (No Hazard Determination) for the proposed project. The No Hazard Determination expires on 05/04/2022 unless construction commences or it is extended/revised by the FAA. (GCE 6, response 64 and Tab B)

121. The FAA requires a glare analysis for on-airport solar development at federal-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 would 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)

122. While the proposed project is not located on an airport property, GCE performed a glare analysis for the project in consultation with CAA. GCE utilized Forge Solar which is the industry standard glare analysis tool that was developed in connection with the Sandia National Lab. The glare analysis confirmed that there would be zero glare caused by the solar project to pilots on approach or take off from BDL as well as the control tower. (GCE 6, response 65 and Tab A – Glare Analysis; GCE 1, Figure 1 – Site Location Map)

Noise

123. The proposed inverters are sources of noise for the project. GCE considered the facility to be an industrial emitter. With residential receptors, the DEEP Noise Control Standards would be 61 dBA during the daytime and 51 dBA at nighttime. (GCE 1, p. 21; RCSA §22a-69-3.5)

124. Noise levels generated by the inverters would 56 dBA at approximately 9.8 feet as specified by the equipment manufacturer. (GCE 1, p. 21; GCE 3, response 29, Tab B)

125. The nearest residential property line is approximately 590 feet east of the nearest concrete equipment pad. The residence is located at 11 Barber Hill Road. (GCE 3, Tab A – Revised Site Plans, Drawing No. C-3.2)

126. GCE did not conduct a noise study; however, sound reduces with distance, and the inverters are inactive at night. Due to the proposed separation distance, noise levels from the project-related equipment during operation would be below 61/51 dBA at surrounding property lines. (GCE 1, pp. 20-21; GCE 3, response 29; Tr. 1, pp. 27-28)

127. Construction noise is exempt from DEEP Noise Control Standards. (RCSA §22a-69-108(g))

Environmental Effects

Air Quality

128. The proposed project would meet DEEP air quality standards, with no emissions associated with site operation. The project does not require an air permit. (GCE 1, pp. 22 and 28)

129. An equivalently-sized natural gas fueled electric generating facility would produce about 420,080 metric tons of carbon dioxide equivalent (MT CO2eq) over an equivalent 30-year service life or about 14,002 MT CO2eq per year. The proposed solar facility would have an estimated carbon debt of 9,659 MT CO2eq. Thus, the solar facility would result in a net improvement in greenhouse gas emissions after approximately 8.3 months of operation. (GCE 3, response 36)

130. During construction of the proposed project, air emissions from construction-related mobile emissions sources would include those associated with construction vehicles and equipment. Such emissions would be de minimis and temporary in nature. Additionally, such emissions would be mitigated using available measures such as limiting idling times of equipment; proper maintenance of all vehicles and equipment; and watering/spraying to minimize dust and particulate releases. (GCE 1, p. 22)

Water Quality

131. 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)

132. Minimal long-term water use would be required for the cleaning of the solar panels, and this water would be trucked into the site. (GCE 1, p. 26)

133. Groundwater underlying the site does not meet DEEP's groundwater classifications for drinking water. (GCE 1, p. 26 and Figure 15 – DEEP Water Quality Classifications Map)

134. The project site is located outside of a DEEP-designated Aquifer Protection Area. (GCE 1, Figure 14 – DEEP Aquifer Protection Area Map)

135. GCE's Phase I Environmental Site Assessment (ESA) identified the presence of pesticides/herbicide/fungicide residue in the soils. In order to mitigate the residues from migrating (e.g. into stormwater runoff and groundwater discharges), GCE would follow its Spill Prevention, Control and Mitigation Plan and its Soil Contact Best Practices Plan for construction at the site. (GCE 3, response 35; GCE 1, Appendix F - ESA)

136. There are no wells located with the project footprint area. The project would also not be expected to impact off-site wells. (Tr. 1, p. 27)

Stormwater

137. 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)

138. 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 22a430b; CGS Section 22a-430(b))

139. The SWPCP incorporates project designs consistent with the 2002 Guidelines and the 2004 Connecticut Stormwater Quality Manual (2004 Stormwater Manual). (DEEP-WPED-GP-015)

140. 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)

141. The Council may impose a condition that requires subsequent compliance with DEEP standards and regulations. (Council Administrative Notice No. 76)

142. The proposed project would require a DEEP-issued Stormwater Permit prior to commencement of construction. (CGS Section 22a-430b)

143. The proposed project has been designed to comply with the 2004 Stormwater Manual and the *2002 E&S Guidelines*. (GCE 3, Tab A – Revised Site Plans, Drawing No. C-5.0; Tr. 1, pp. 47-48)

144. GCE proposes to install three stormwater detention basins in the proposed project area. The proposed stormwater management system was designed to meet DEEP Guidance Regarding Solar Arrays. (GCE 1, p. 27; GCE 3, Tab A – Revised Site Plans, Drawing No. C-3.0

145. Stormwater calculations were performed for 2, 10, 25, and 100-year storms. The hydrological calculations indicate that the design of the proposed stormwater basins would reduce peak rates of runoff below pre-construction levels. (GCE 1, Appendix G, Stormwater Report; Tr. 1, p. 52)

146. A pre-application meeting was held with DEEP Stormwater Division on June 3, 2020, and a site visit was held on July 28, 2020. The proposed site plans were discussed during the site walk. DEEP Stormwater staff did not indicate any suggested modifications at that time. (GCE 1, pp. 17-18; GCE 3, response 48)

147. As of February 23, 2021, GCE had recently filed its Stormwater Permit application with DEEP. GCE will discuss with DEEP the effects of grazing sheep at the site, and that will be considered as part of the Stormwater Permit. (Tr. 1, pp. 67-68)

148. 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 Manual*, pp. 4-3 – 4-4)

149. 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)

Wetlands and Watercourses

150. 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.)

151. 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)

152. 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)

153. 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.)

154. On-site wetlands were delineated during July and August 2019 by a Professional Soil Scientist. (GCE 1, Appendix I – Wetland Delineation Report, p. 1)

155. One wetland (Wetland 1) was identified in the southern limits of the subject property near Lindsay Lane. Wetland 1 is a seasonally saturated wetland located approximately ¼-mile southwest of the project limits of work. (GCE 1, Appendix I – Wetland Delineation Report, Figure 1 and Wetland Delineation Field Form)

156. No vernal pool habitat was observed on or proximate to the site during the wetland delineation. (GCE 1, pp. 24-25; GCE 1, Appendix I – Wetland Delineation Report, Wetland Delineation Field Form)

157. Windsorville Pond is located approximately 500 feet to the northeast of the project area and on the opposite side of Rockville Road. The proposed stormwater management system would mitigate peak flow increases and treat water quality of runoff to protect this resource. (GCE 1, p. 25 and Figure 11 – Wetland Delineation Map)

Visibility

158. GCE proposes a landscaping along the eastern side of the project site to conceal the project using a mix of native trees and shrubs. Specifically, GCE proposes the following:

Trees	**Quantity**	**Initial Size**
Canadian Serviceberry	10	6 to 7 feet tall
Crusader Hawthorn	8	1 ½ inch diameter
Swamp White Oak	10	2 ½ inch diameter
Eastern Red Cedar	18	5 to 6 feet tall
Colorado Spruce	28	6 to 7 feet tall
Shrubs		
Red Chokeberry	110	18 to 24 inches tall
Mountain Laurel	32	30 to 36 inches tall
Northern Bayberry	60	30 to 36 inches tall
Fragrant Sumac	50	18 to 24 inches tall

(GCE 1, p. 19; GCE 3, Tab G – Revised Planting Plan, Drawing No. L-1.1)

159. The two eastern-most tobacco sheds would provide additional screening for the northeastern and southeastern portions of the project. The proposed landscaping would fill in the "gap" between the two sheds along Rockville Road and Barber Hill Road. The landscaping is intended to reduce the visibility of the solar panels from Rockville Road and Barber Hill Road for adjacent residents while maintaining their "big picture" view of the area. (GCE 3, Tab G – Revised Planting Plan, Drawing No. L-1.1; Tr. 1, pp. 24-25, 87)

160. GCE would also install privacy slats on the proposed chain link fence along the eastern side of the facility for a distance of about 980 linear feet to provide additional screening along Rockville Road and Barber Hill Road. The privacy slats alone (neglecting the landscaping) would block direct views of the majority of the 8-foot 7-inch tall solar panels given the fence height of 7 feet. (GCE 3, Tab G – Revised Planting Plan, Drawing No. L-1.1 and Revised Site Plans, Drawing C-3.0; Tr. 1, p. 26; GCE 1, p. 9; GCE 3, response 18)

161. GCE is willing to discuss with Eversource the possibility of locating the three proposed riser/meter poles directly north of the barn (located near the proposed access drive) for visual screening purposes. GCE is also willing to discuss with Eversource the possibility of locating the three poles to the west of the barn for visual screening purposes, but GCE is concerned about the limited space on the subject property west of the barn. (Tr. 1, pp. 37-38, 86)

162. There are no national or state scenic roads in the Town. The nearest local scenic road, Wapping Road, is located approximately 0.34-mile northwest of the site, but the project would not be visible from this road. (GCE 3, response 45)

163. The nearest publicly accessible recreational area to the proposed facility is Pierce Memorial Park (PMP). PMP is a Town-owned park located approximately 0.6-mile from the proposed facility. The project would not be visible from PMP. (GCE 3, response 44; Tr. 1, p. 19)

Historic and Archaeological Resources

164. No known properties listed on the State or National Register of Historic Places are located within one mile of the project site. (GCE 1, Appendix H – Phase 1A Cultural Resources Assessment Survey p. 1)

165. A Phase IA Cultural Resources Assessment Survey Report (Phase IA Report) concluded that approximately 7.1 acres of the proposed project area retain no to low archaeological potential, and approximately 79 acres of the proposed project area possess a moderate sensitivity for producing archaeological resources. No additional archaeological examination of the no/low potential areas was recommended. (GCE 1, Appendix H – Phase IA Report, pp. i and 28)

166. A Phase IB Cultural Resources Reconnaissance Survey (Phase IB Report) was conducted of the areas of moderate sensitivity. A total of 233 shovel tests were excavated and resulted in the identification of a single 19th century historic cultural resource locus known as Locus 1 that is located in the northeastern-most portion of the project area and produced examples of included redware, whiteware, glass, and transfer printed ceramic sherds from the plowzone. Per the Phase IB Report, Locus 1 does not retain the qualities of significance per the National Register of Historic Places (NRHP) criteria. No additional archeological testing of Locus 1 is recommended prior to construction of the solar facility, and no impacts to significant cultural resources are expected to result from the construction of the facility. (GCE 1, Appendix H – Phase IA Report, pp. 28-29; GCE 1, Appendix H – Phase IB Report, p. 1)

167. The Phase IA/IB Reports were submitted to SHPO for review. (GCE 1, Appendix H – SHPO Letter dated March 18, 2020)

168. By letter dated March 18, 2020, SHPO indicated that it concurs that Locus 1 is not eligible for listing on NRHP, and no additional archaeological investigations of the project area are warranted. SHPO recommends that all three tobacco sheds in the vicinity of the project area be "retained and incorporated into the layout of the solar facility." (GCE 1, Appendix H – SHPO Letter dated March 18, 2020)

169. The three tobacco sheds located adjacent to the project are currently used as active drying sheds and as storage for farming equipment. The proposed project would not affect any of the sheds. The landowner would retain ownership and use of the sheds. (GCE 1, Appendix H – SHPO Letter dated March 18, 2020; Tr. 1, pp. 22-24, 79)

Wildlife

170. The nearest known DEEP Natural Diversity Data Base (NDDB) buffer area is located approximately 0.48 miles to the northwest of the proposed project area. (GCE 1, Figure 12 – NDDB Areas Map)

171. On August 2, 2019, GCE submitted a preliminary NDDB review request and received a response from DEEP on August 20, 2019 stating that 14 state-listed species are known to occur within or proximate to the site property. These 14 species are identified below:

Invertebrate Animals	**State-listed Status**
Big sand tiger beetle	Species of Special Concern
Horace's duskywing	Species of Special Concern

Eastern pearlshell	Species of Special Concern
Scribbed sallow moth	Species of Special Concern
Vertebrate Animals	
Sharp-shinned hawk	Endangered Species
Short-eared owl	Threatened Species
American kestrel	Species of Special Concern
Wood turtle	Species of Special Concern
Red-headed woodpecker	Endangered Species
Savannah sparrow	Species of Special Concern
Vascular Plants	
Short-awned meadow foxtail	Threatened Species
Dwarf huckleberry	Threatened Species
Climbing fern	Species of Special Concern
Narrow-leaved horse gentian	Endangered Species

(GCE 1, Appendix J – Request for NDDB Review, p. 6 and DEEP NDDB Letter dated August 20, 2019)

172. GCE performed an assessment of the identified state-listed species based on a combination of habitat assessments to determine if suitable habitat is available at the site and field surveys for species more likely to be utilizing the site or a portion of the site. The results of the state-listed species investigations dated August 26, 2020 were submitted to DEEP for review. (GCE 1, p. 25; GCE 4, DEEP NDDB Letter dated October 23, 2020)

173. By letter dated October 22, 2020, DEEP determined that the proposed project would not be expected to result in negative impacts to state-listed species because only one state-listed species, the brown thrasher, a state-listed species of a special concern, was found on the subject property, but suitable habitat for this species is not located within the project footprint. (GCE 4, DEEP NDDB Letter dated October 23, 2020)

174. 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 in East Granby. There are no known maternity roost trees in Connecticut. Furthermore, there is no tree clearing is 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; GCE 3, Tab A – Revised Site Plans, Drawing No. C-3.0)

Geology

175. According to the United States Department of Agriculture Natural Resources Conservation Service mapping, the site contains Narragansett silt loam across the entire project area with slopes ranging from 2 to 8 percent. Test pits indicate that the majority of the project area contains a thick layer of sandy loam of about 12 to 18 inches underlain with sand and cobbles. (GCE 1, p. 23 and Figure 10 – Prime Farmland Soils Map)

176. The majority of the on-site soils belong to the Hydraulic Soil Group "A" which indicates that the soils have a high infiltration rate when thoroughly wet. The northwestern and northeastern portions of the site belong to the Hydraulic Soil Group "B" which indicates that the soils have a moderate infiltration rate when thoroughly wet. (GCE 1, Appendix G – Stormwater Report, p. 2)

Agriculture

177. 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)

178. 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)

179. 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)

180. 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))

181. If the proposed project is approved, the Mulnite family will continue to farm their fields located north and south of the project site. (GCE 1, p. 19)

182. The project has a 32-acre limits of work (LOW) area which is located on prime farmland soils. Of the 32 acres, disturbance of prime farmland soils within the perimeter fence and associated with the installation of solar panels and stormwater basins plus the access roads would total approximately 24 acres.*

*The remaining 8 acres of prime farmland soils located within the LOW but outside the identified disturbance areas would be vegetated.

(GCE 1, p. 23; GCE 3, response 37; GCE 1, Figure 10 – Prime Farmland Soils Map; CE 3, Tab A – Revised Site Plans, Drawing No. C-3.0; August 27, 2020 DOAg CGS §16-50k No Material Impact to Prime Farmland Determination Letter)

183. To maintain the agricultural character of the area, GCE has committed to incorporate an agricultural co-use within the project site with the following features:

a) GCE's facility site would host the rotational grazing of sheep;
b) GCE would partner with the American Solar Grazing Association (ASGA) to identify sheep farmers in Connecticut that would be willing to work on the project and develop a comprehensive grazing plan for implementation;
c) GCE would utilize a seed mix that would address the nutritional needs of sheep, provide a low-growing, easily maintained and sustainable vegetation solution for solar installations, and be pollinator friendly; and
d) GCE also proposes a small apiary consisting of four to five beehives.

(August 27, 2020 DOAg CGS §16-50k No Material Impact to Prime Farmland Determination Letter; GCE 1, p. 19; Tr. 1, pp. 44-45)

184. GCE has preliminary plans for on-site sheep grazing. The sheep would not have access to the entire facility footprint at a given time. They would be moved to different locations. GCE would also be willing to relocate the sheep to a different portion of the site farther away from neighbors should noise become an issue. (Tr. 1, p. 30)

185. GCE estimates roughly three to four sheep per acre would be on site. The objective is to promote the health of the grazing sheep, control vegetation growth and satisfy the plans for agricultural co-use, not necessarily to maximize the number of sheep on site. (Tr. 1, p. 69)

186. The final beehive locations have not yet been determined. GCE would work with a local beekeeping group and hire a beekeeper as a contractor to manage the hives. (Tr. 1, pp. 21-22)

Forest and Parks

187. No state parks or forests are located in the vicinity of the site. (Tr. 1, p. 19)

188. No tree clearing is proposed for the project. (GCE 3, Tab A – Revised Site Plans, Drawing No. C-3.0)

189. There is no mapped core forest at the proposed site. (GCE 1, p. 26)

Neighborhood Concerns

190. Under CGS § 16-50p, the Council is not required to take into account the status of property values. (CGS §16-50p; *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))

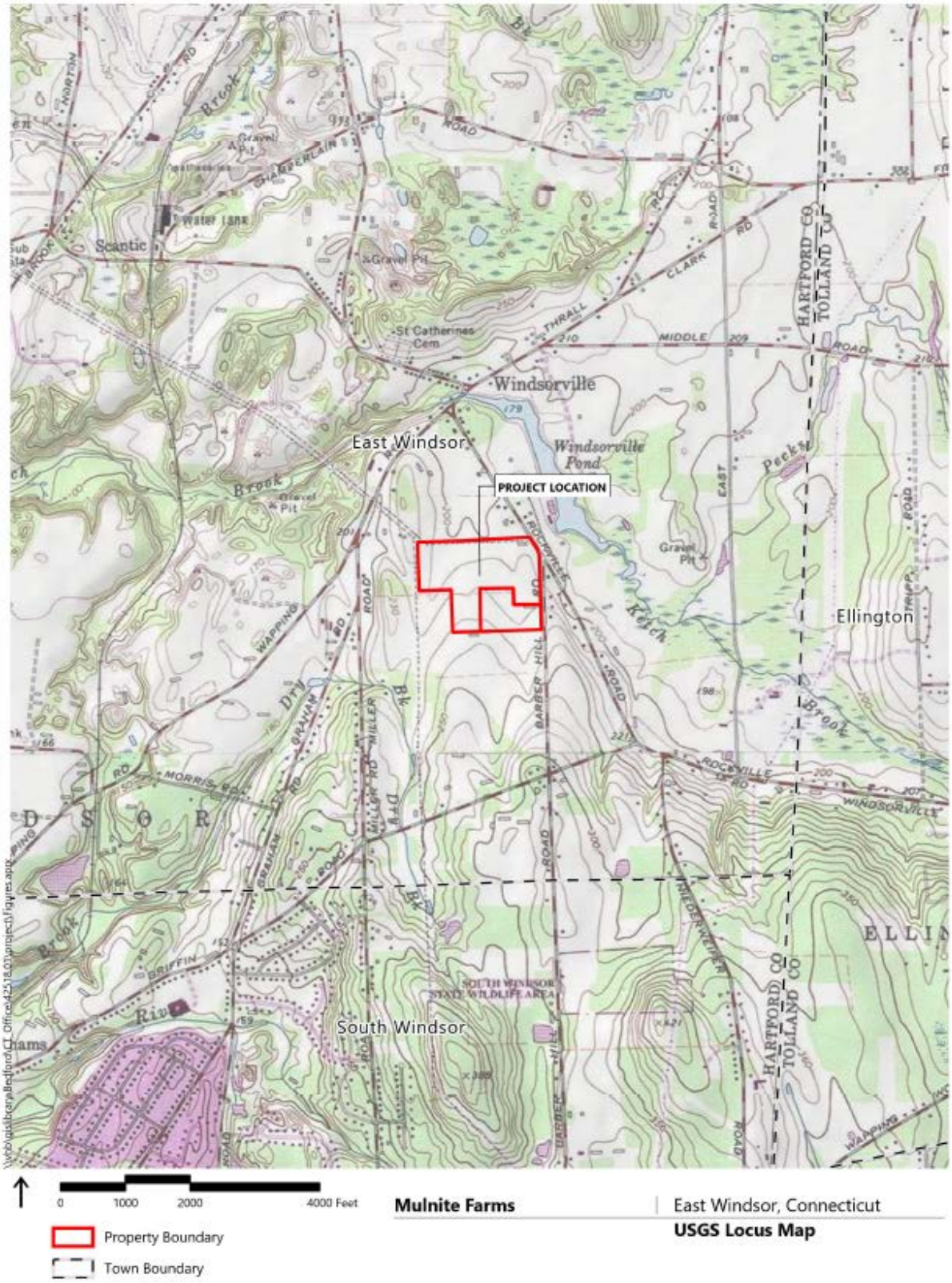
191. Based on neighborhood concerns regarding visibility, GCE has offset its array locations as far as practical from residences and included a landscape planting plan. GCE discussed the landscape planting plans and latest visual simulations with neighbors between August 2020 and October 2020. (Tr. 1, pp. 24-25; 78; GCE 5, Public Outreach Record, p. 3)

192. Pursuant to CGS § 16-50m, the Council, after giving due notice thereof, held a remote public comment hearing session on February 23, 2021 at 6:30 p.m. via Zoom conferencing. (Record; Tr. 2, p. 95)

193. No limited appearance statements were made at the remote public comment hearing session. (Tr. 2)

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

Figure 1 – Site Location

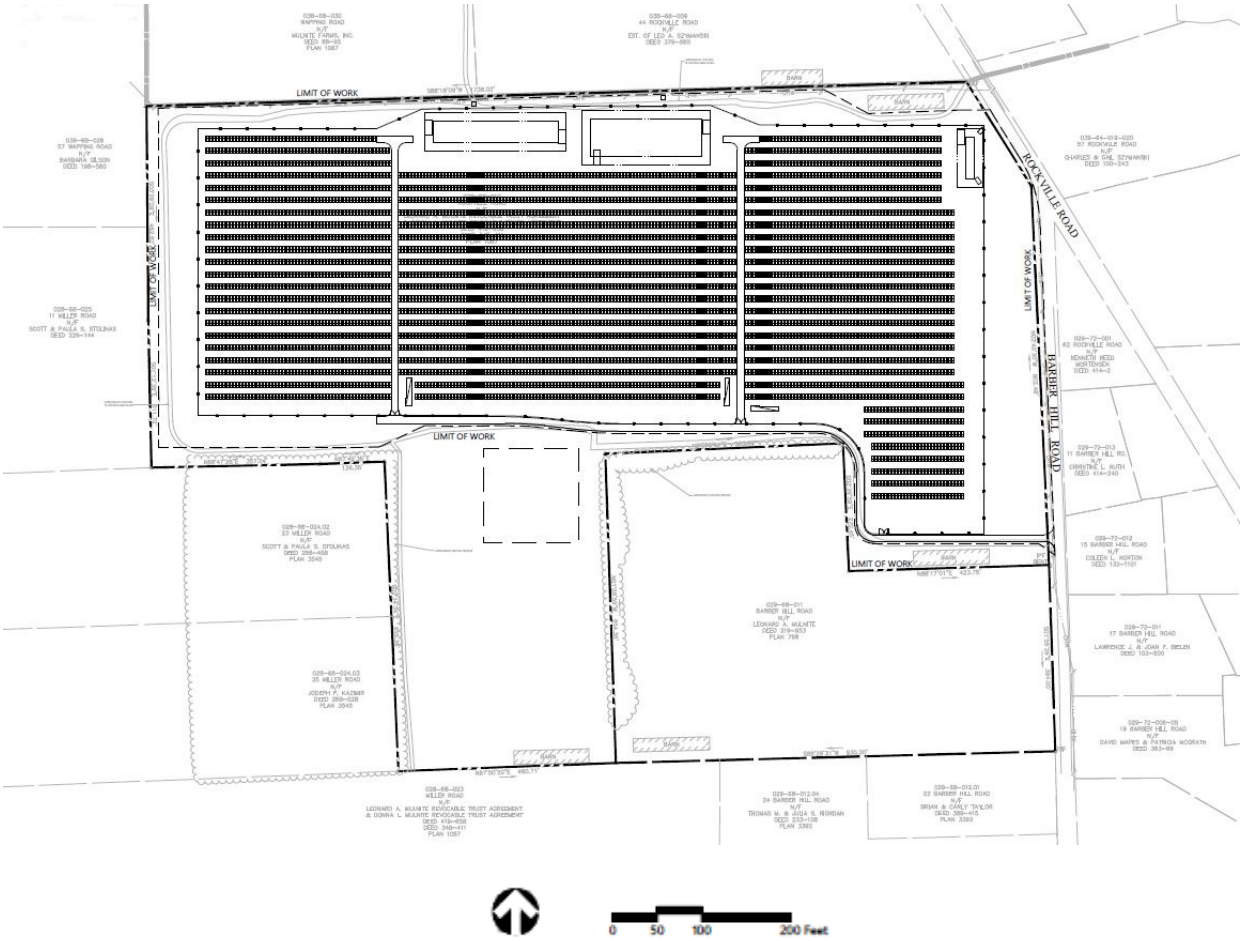


(GCE 1, Appendix G – Stormwater Report, Figure 1)

Figure 2 – Existing Conditions

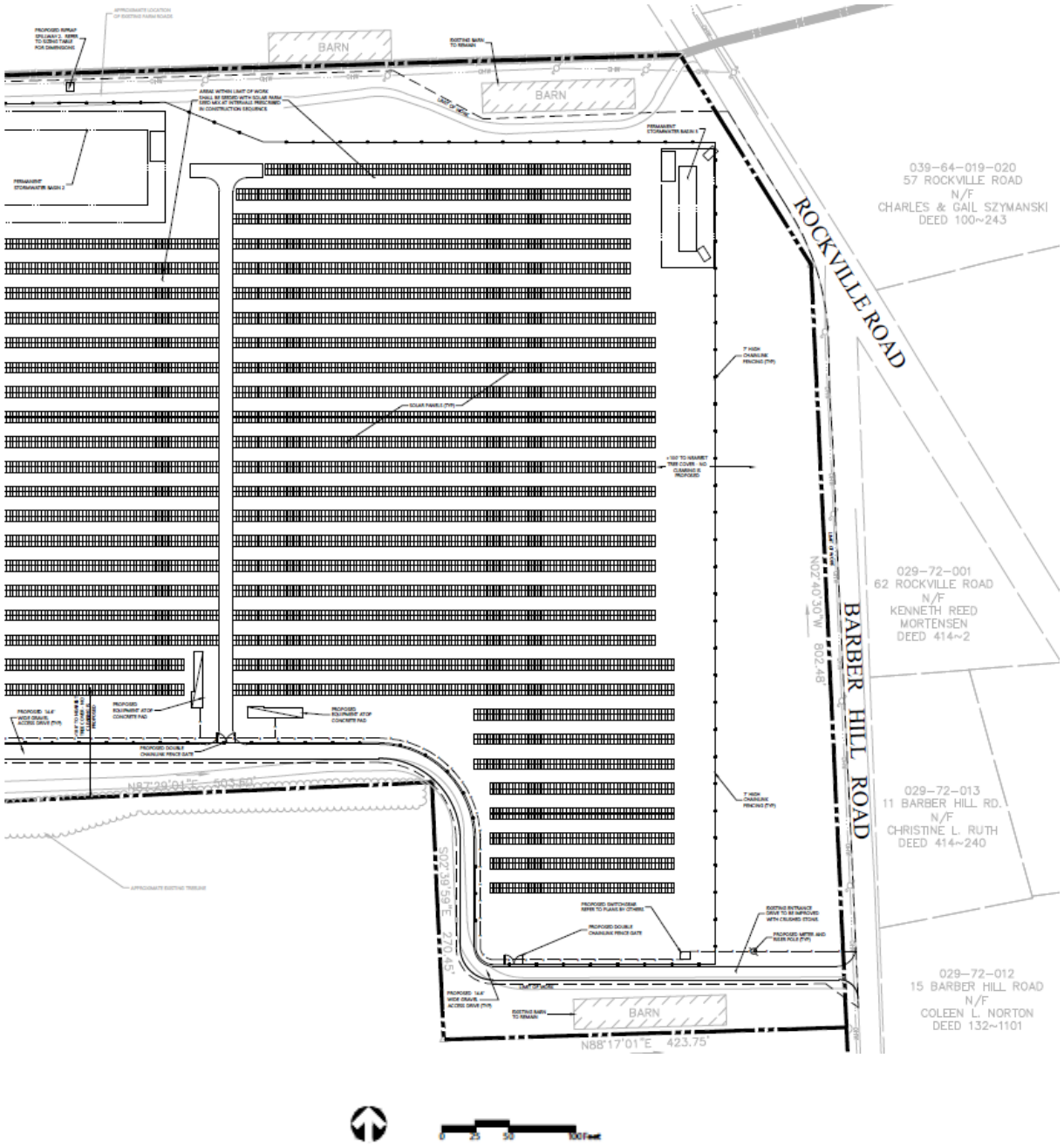
(GCE 1, Figure 2 – Proposed Project Area Aerial)

Figure 3 – Proposed Site Layout



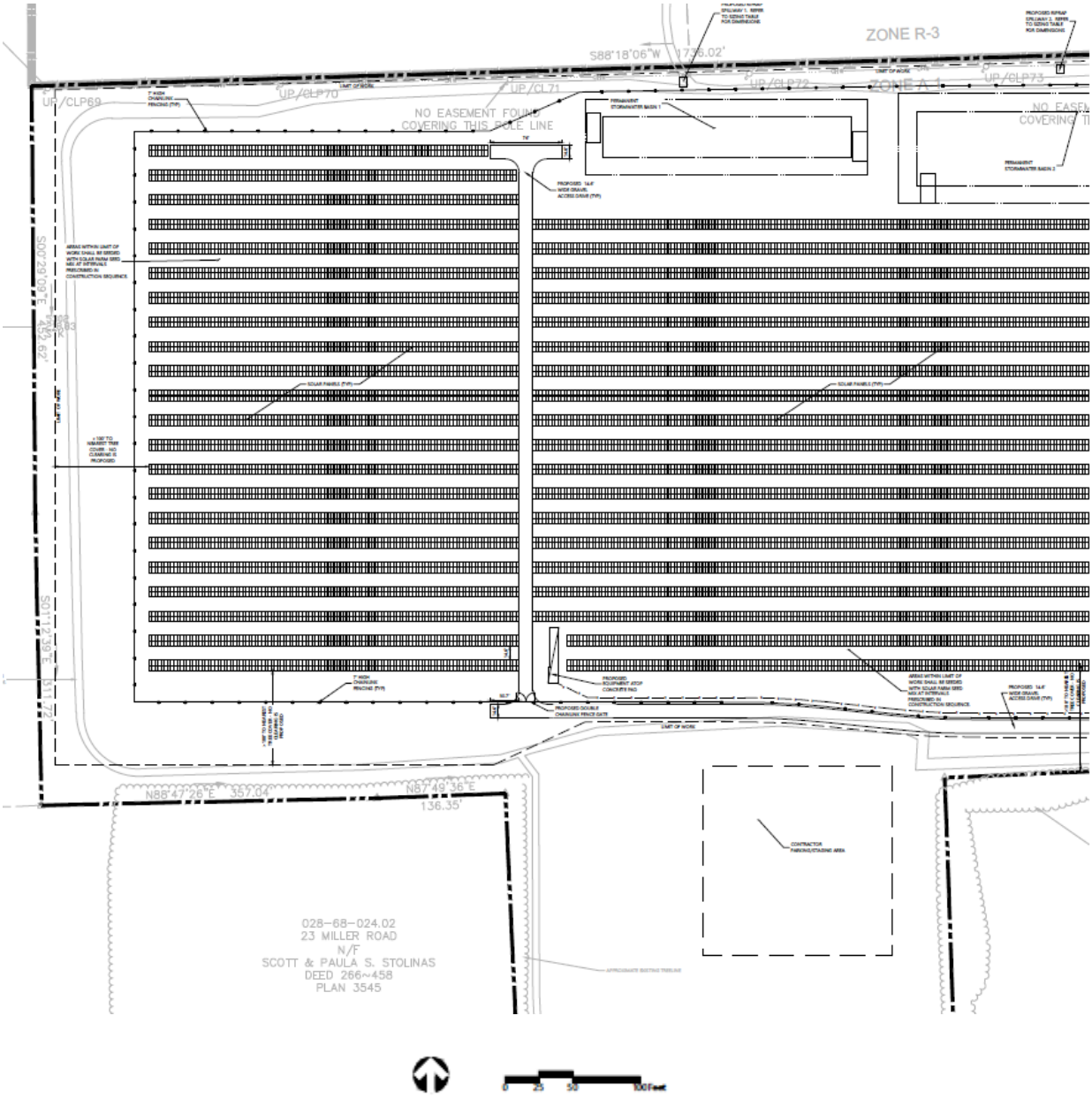
(GCE 3, Tab A – Revised Site Plans, Drawing No. C-3.0)

Figure 4 – Proposed Site Layout (Eastern Portion)



(GCE 3, Tab A – Revised Site Plans, Drawing No. C-3.2)

Figure 5 – Proposed Site Layout (Western Portion)



(GCE 3, Tab A – Revised Site Plans, Drawing No. C-3.1)

State Agency Comments

Council on Environmental Quality

Connecticut Airport Authority

STATE OF CONNECTICUT

COUNCIL ON ENVIRONMENTAL QUALITY

August 28, 2020

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

RE: PETITION NO. 1422 - Greenskies Clean Energy, LLC petition for a declaratory ruling for the proposed construction, maintenance and operation of a 4.99-megawatt AC solar photovoltaic electric generating facility to be located at Mulnite Farms, Inc. off Barber Hill Road west of the intersection with Rockville Road, East Windsor, Connecticut.

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.

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 probable 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 area 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 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 . 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).

79 Elm Street, Hartford, CT 06106
Phone: (860) 424-4000 Fax: (860) 424-4070
http://www.ct.gov/ceq

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 in 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.

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

79 Elm Street, Hartford, CT 06106
Phone: (860) 424-4000 Fax: (860) 424-4070
http://www.ct.gov/ceq

CONNECTICUT AIRPORT AUTHORITY

TO: Robert J. Hannon, Connecticut Siting Council
Linda Guliuzza, Connecticut Siting Council
Daniel P. Lynch, Jr., Connecticut Siting Council
John Morissette, Connecticut Siting Council
Michael Harder, Connecticut Siting Council
Edward Edelson, Connecticut Siting Council
Robert Silvestri, Connecticut Siting Council
Executive Director Melanie Bachman, Connecticut Siting Council

FROM: Kevin A. Dillon, A.A.E., Executive Director, Connecticut Airport Authority

DATE: January 20, 2021

RE: **PETITION NO. 1422** - Greenskies Clean Energy, 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 4.99-megawatt AC solar photovoltaic electric generating facility to be located at Mulnite Farms, Inc. off Barber Hill Road west of the intersection with Rockville Road, East Windsor, Connecticut and associated electrical interconnection.

Dear Distinguished Members of the Connecticut Siting Council and Executive Director Bachman,

Thank you for the opportunity to provide comments regarding Petition No. 1422.

While it appears that this development is at least five miles away from Bradley International Airport, and therefore unlikely to pose obstruction issues, the CAA respectfully requests that the proponents complete a glare study to understand the impacts that this could have to air traffic in the area. As I have noted to the council in the past, glare from photovoltaic facilities can sometimes impact pilots in the vicinity of those facilities and a glare study would provide important information to understand the full impacts that this project could have on aviation in the state. Despite the distance from the airport, this project would be situated along the approach to one of BDL's runways and a glare study would help confirm that there is no safety issue for arriving pilots.

Please feel free to contact me directly at 860-292-2054 if you have any questions or concerns.

Sincerely,

Kevin A. Dillon

Kevin A. Dillon, A.A.E.
Executive Director
Connecticut Airport Authority