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December 31, 2020

**VIA ELECTRONIC MAIL**

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

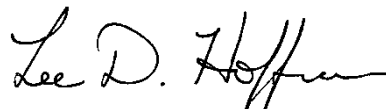
**Re: Docket No. 492 - Gravel Pit Solar application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 120-megawatt-AC solar photovoltaic electric generating facility on eight parcels generally located to the east and west of the Amtrak and Connecticut Rail Line, south of Apothecaries Hall Road and north of the South Windsor town boundary in East Windsor, Connecticut and associated electrical interconnection**

Dear Ms. Bachman:

On behalf of my client, Gravel Pit Solar, please find Gravel Pit Solar's post-hearing brief in connection with the above-referenced Application.

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

Sincerely,



Lee D. Hoffman

Enclosures

**STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL**

**Gravel Pit Solar application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 120-megawatt-AC solar photovoltaic electric generating facility on eight parcels generally located to the east and west of the Amtrak and Connecticut Rail Line, south of Apothecaries Hall Road and north of the South Windsor town boundary in East Windsor, Connecticut and associated electrical interconnection**

**Docket No. 492**

**December 31, 2020**

**POST-HEARING BRIEF OF APPLICANT GRAVEL PIT SOLAR**

**I. INTRODUCTION**

Gravel Pit Solar, LLC, Gravel Pit Solar II, LLC, Gravel Pit Solar III, LLC, and Gravel Pit Solar IV, LLC (collectively, “Gravel Pit Solar” or the “Applicant”), submits this post-hearing brief to the Connecticut Siting Council (the “Council”) in support of its July 31, 2020 Application for a Certificate of Environmental Compatibility and Public Need (the “Application”) for the construction, operation and maintenance of a 120-megawatt (MW) alternating current (AC) ground-mounted solar photovoltaic system proposed in the Town of East Windsor, Connecticut (the “Project”).

The Applicant’s companies (Gravel Pit Solar, LLC, Gravel Pit Solar II, LLC, Gravel Pit Solar III, LLC and Gravel Pit Solar IV, LLC) are affiliates of D.E. Shaw Renewable Investments, L.L.C. (“DESRI”). Application, p. 3. DESRI, through its affiliates, is a leading developer, owner, and operator of renewable energy projects across North America, including two commercial solar projects in Connecticut: Tobacco Valley Solar (26.4 MW) and Fusion Solar (20 MW). *Id; see also* Remote Public Comment Session Transcript, p. 145. DESRI has incorporated the lessons learned at Tobacco Valley Solar and Fusion Solar, respectively, in the development of the Project, and as a result, has designed a project that it believes will result in a range of benefits for both the State of Connecticut and local communities, without unduly compromising the State’s environment or natural resources.

## II. PROJECT BACKGROUND

The Project includes the development of a 120-megawatt (MW) alternating current (AC) ground-mounted solar photovoltaic system sited on approximately 737 acres of land in the Town of East Windsor (the “Project Site”; the “Property”). *See* Application, p. 5. The Project itself will be constructed across approximately 485 acres (the “Project Area”). *Id.* at 11. The solar panels will be mounted on a mix of single-axis tracker mechanisms and fixed-tilt racking systems. *Id.*

Currently, the Project Site is used primarily for active sand and gravel mining operations, as well as for tobacco farming and other crops. *Id.* at 10. The Project Site is adjacent to a landfill, two existing solar energy projects, and other gravel mining operations. *Id.* It is Gravel Pit Solar’s understanding that the proposed Project Site, for many years, has “served as an attractive nuisance for illicit activity, such as trespassing ATVs, underage drinking and the like, that the Town [of East Windsor] has not been able to curtail through conventional means.” *See* Jason Bowsza’s November 12, 2020 correspondence to the Council; *see also* Application, p. 10.

Conversations with abutters and Town staff similarly revealed there have been frequent complaints about noise, truck traffic, and dirt on the roads near the gravel mines comprising the Project Site. One of the many benefits of the Project will be a reduction in dust, noise and truck traffic by means of closing the gravel pits. *See* Public Comment Transcript, p. 146. Also, by fencing the Property, Gravel Pit Solar will reduce the illicit ATV activity that has become a nuisance in the area and should improve the quality of life for the community.

As detailed in Section 5 of the Application (pp. 19 - 23), Gravel Pit Solar worked with the Council, the Connecticut Department of Energy and Environmental Protection (“CTDEEP”), the Town of East Windsor, abutters to the Property, and other relevant stakeholders to design and improve its Project, limit the Project’s impacts where feasible, and develop a Project that is capable of generating

clean and cost effective renewable energy to Connecticut, Massachusetts and Rhode Island customers.

See Application, p. 5.

To that end, and based on Gravel Pit Solar's efforts, the Town and broader East Windsor community have been receptive to the idea of a solar project being developed on the Project Site. Application, p. 10. During the remote public comment session held on November 12, 2020, several individuals came forward to express their support for the Project, including Town of East Windsor First Selectman Jason Bowsza, who expressed the following about the Project:

*[T]his project, as proposed, solves a long-standing attractive nuisance issue in town that has been, just because of the sheer scope and scale of the subject properties, we haven't been able to curtail otherwise. That's a point that I hear a lot from residents in and around the area expressing their frustration with some of those illicit activities that happen. And having a neighbor like Gravel Pit Solar occupying that space I think will go a long way towards resolving that which we haven't been able to resolve otherwise.*

*East Windsor is a community that I think is very supportive of renewable energy projects, especially when the projects make sense for us. Certainly not all of these projects are created equal, and there are circumstances that need to be considered by communities when deciding whether or not to be supportive of them. Gravel Pit Solar makes a lot of sense for us, and mostly that has to do with where it is. It is going to have, as proposed, it will have very little impact on abutting property owners. It's mostly, the subject parcel is mostly out of sight with some, only a few instances where that isn't the case.*

*A project like this is going to be a quiet neighbor. They're not going to put a lot of burden on municipal services. They're going to install their projects, and then they're going to be nice and quiet for the duration of their stay. And we look forward to that. It's not going to be something that becomes an eyesore. It's not going to be something that becomes an attraction of sorts. It's going to be largely hidden and out of the way.*

*I would say that Gravel Pit Solar, Mr. Svedlow and his team, have been nothing but cooperative and communicative with us since the first time they walked in my office almost a year ago. They have repeatedly offered, and we have accepted the offer, of them coming to various land use boards in town and to the Board of Selectmen to provide updates on the project, where it stands at the moment, soliciting feedback and input from stakeholders who in a not state sited project would have input in the role. They've gone out of their way to be inclusive of the thoughts and concerns of our land use team here in town, both from a staff level and from a volunteer level, and I thank them for that.*

Public Comment Transcript, pp. 148 – 149. Other community members voiced similar sentiments of support for the Project, especially with respect to the change in use of the proposed Project Site:

*Doug King, an abutter of the Project Site (341 Rye Street): I have had numerous conversations with Aaron. And I think it's a good project for the town and for our people. It brings us a good tax base with very little load on our infrastructure. I speak, you know, I think, for a lot of people in town that we'd rather see this than housing or any other type of development that would happen here, you know, we would definitely support the project in any way we can.*

*Robert Urso: I am a resident of South Windsor. I've been here approximately 50 years. And over the years there's been many hearings, et cetera, over the truck traffic that came from the gravel pit out in that way previously. It was Manchester Sand and Gravel many years ago, and on the roads of Rye Street, Windsorville Road, Graham Road. And they tried to curtail the truck traffic there through the neighborhoods for the safety of children over the years. And I think now that hopefully this particular occupant, you know, applicant goes forward, I think this will answer many residents' wishes over the years. That's number one.*

*Number two, I think that the project is going in the right direction as far as being green with clean energy. And as the First Selectman said, you're going to have a nice tax base there for the town, and they're not going to require any town services either. So I am in favor of this application. Thank you.*

*Id.* at pp. 150 – 152.

Moreover, there is a clear need for the emissions-free, renewable generation that the Project will provide. As the Council is aware, Connecticut has set challenging targets for procuring clean, renewable energy. The 2008 Global Warming Solutions Act (“GWSA”) and the 2018 Act Concerning Climate Change Planning and Resiliency call for Connecticut to reduce its total greenhouse gas (“GHG”) emissions to ten (10) percent below 1990 levels by 2020, to 45 percent below 2001 levels by 2030, and to 80 percent below 2001 levels by 2050. Similarly, Connecticut’s Renewable Portfolio Standards (“RPS”) require electric providers to purchase an increasing percentage of electric power from Class I renewable resources.

Under current law, providers must obtain at least 24 percent of their retail loads from Class I renewable energy sources by January 1, 2022 and 40 percent by January 1, 2030; however, these

required renewable energy levels will likely increase in the ensuing years if the recommendations of Governor Lamont's Energy Policy Committee are followed. The Energy Policy Committee recommended revising the Class I RPS goals to 35 percent by 2025, 50 percent by 2030, 80 percent by 2040 and 100 percent by 2050, and those recommendations were subsequently embodied in Governor Lamont's Executive Order No. 3, which calls for Connecticut to achieve a 100 percent zero carbon electric supply by 2040.

As of December 31, 2019, Connecticut has over 566 MW AC of installed solar generation projects with a nameplate capacity of 5 MW or greater, according to ISO-NE. *See* LFE-B. The Solar Energy Industries Association indicates that in 2019, Connecticut had 786 MW AC of installed solar capacity. *Id.* This figure includes solar capacity from smaller projects, as well as rooftop and residential solar installations. The Project will increase Connecticut's installed large-scale solar energy capacity by over 20 percent at a single location, maximizing efficiencies of scale and reducing the cost of energy over smaller installations by a significant margin.

Given the public's receptiveness of the Project, and considering the host of environmental, societal, and economic benefits the Project will bring, Gravel Pit Solar respectfully submits that the Project should be approved. As demonstrated below, the Project meets the exacting standards set forth by the Council in its consideration of such projects; specifically, the Project, as proposed, meets the applicable air and water quality standards of the CTDEEP, and also will not have an adverse effect on other natural resources of the State.

### **III. THE CONTRACTS THAT SUPPORT THE PROJECT**

During the public hearings, several questions were asked about the contracts that underlay the Project and provide for the offtake of the Project's electricity and environmental attributes. As is common with many generation projects, this Project has multiple offtake agreements, which were the

subject of PURA Docket 18-05-04. December 1, 2020 Hearing Transcript, p. 241. For example, the Project has power purchase agreements in place with both The Connecticut Light & Power Company, d/b/a Eversource Energy (“Eversource”) and The United Illuminating Company (“UI”). *See* PURA Docket 18-05-04. Each of these contracts presumes a certain nameplate capacity which is a portion of the Project’s overall nameplate capacity. For the Eversource contract, that presumed nameplate capacity is 16.076 MW AC and for the UI contract, that presumed nameplate capacity is 3.924 MW. *Id.* The Project is required to provide 100% of the output of a given presumed nameplate capacity to the various contract counterparties, such as UI or Eversource. *Id.*, and December 1, 2020 Hearing Transcript, pp. 184-85.

This is likely best explained by way of example. On a given day in June, when solar irradiance is at its highest during the 12pm to 1 pm hour, the Project may produce a maximum of 120 MWh. During this hour, the Project will have produced its entire nameplate capacity of 120 MW over a one-hour period, which equates to 120 MWh. For this hour, each offtaker is entitled to 100% of the output of their allotted nameplate capacity. So, by way of example, Eversource would be entitled to 16.076 MWh, UI would be entitled to 3.924 MWh, and other offtakers would be entitled to similar apportioned outputs from the Project, up to the Project’s total nameplate capacity of 120 MW.

However, the Project will not always operate at its nameplate capacity production. For many hours of the year, it will operate at a fraction of its total nameplate capacity. For example, that same 12pm to 1 pm hour in December, rather than in June, may result in half of the total nameplate capacity being produced due to lower solar irradiance. This 60 MWh of production (half of the June output) would be allocated to the various contract offtakers according to their percentage share of the full nameplate capacity of the Project. Thus, in this example, Eversource would receive 8.038 MWh, which would be 50% of the output of the 16.076 MW of nameplate capacity of the Project. Put another way, Eversource’s 16.076 MW represents 13.4% of the overall nameplate capacity of the Project. When the

Project operates at 50% of its output, Eversource receives 13.4% of that output, which in this case would be 8.038 MWh. The math for that calculation is fairly straightforward:  $13.4\% \times 60 \text{ MWh} = 8.038 \text{ MWh}$ ,

Gravel Pit Solar understands that the Council may wish to look to ways to shrink the Project in order to increase the size of buffers in certain areas. However, as explained to the Council during the hearing, if the Project's size reduces its nameplate capacity, the Project runs the risk of being in violation of the requirements of its power purchase agreements. December 1, 2020 Hearing Transcript, pp. 186-87. As is discussed in greater detail below, the Project, although it is fairly large, is designed in such a way to meet all applicable standards and regulations set forth by the Council. The Project should therefore be approved in its current design by the Council.

#### **IV. LEGAL STANDARD**

Pursuant to Section 16-50k and Section 4-176(a) of the Connecticut General Statutes and the Council's implementing regulations, Gravel Pit Solar petitioned the Connecticut Siting Council for the issuance of a Certificate of Environmental Compatibility and Public Need ("CECPN") for the Project.

Conn. Gen. Stat. § 16-50k provides, in relevant part:

*(a) Except as provided in subsection (b) of section 16-50z, no person shall exercise any right of eminent domain in contemplation of, commence the preparation of the site for, commence the construction or supplying of a facility, or commence any modification of a facility, that may, as determined by the council, have a substantial adverse environmental effect in the state without having first obtained a certificate of environmental compatibility and public need, hereinafter referred to as a "certificate", issued with respect to such facility or modification by the council. Any facility with respect to which a certificate is required shall thereafter be built, maintained and operated in conformity with such certificate and any terms, limitations or conditions contained therein.*

*Notwithstanding the provisions of this chapter or title 16a, the council shall, in the exercise of its jurisdiction over the siting of generating facilities, approve by declaratory ruling (A) the construction of a facility solely for the purpose of generating electricity, (B) the construction or location of any fuel cell, unless the council finds a substantial adverse environmental effect, or of any customer-side*



*distributed resources project or facility or grid-side distributed resources project or facility with a capacity of not more than sixty-five megawatts, as long as such project meets air and water quality standards of the Department of Energy and Environmental Protection, and (C) the siting of temporary generation solicited by the Public Utilities Regulatory Authority pursuant to section 16-19ss.*

As demonstrated below, the Project, as designed, meets the standards set forth by the Council—specifically, the Project complies with the applicable air and water quality standards of the CTDEEP and will not cause substantial adverse environmental effects. In addition, if approved, the Project would help foster a competitive energy retail market (Nov. 12, 2020 Tr. pp. 36 – 37), contribute to the forecast generating capacity requirements on both a state and regional level (*Id.* at 37), reduce dependence on imported energy sources (*Id.*), diversify the State’s energy supply mix (*Id.*), and enhance electric reliability in Connecticut (*Id.* at 37 – 38). As such, Gravel Pit Solar respectfully urges the Project’s approval by the Council.

## **V. ARGUMENT**

### **A. The Project Meets Applicable CTDEEP Air and Water Quality Standards**

The record is clear that the Project satisfies the applicable air quality standards of the CTDEEP. The Project will provide a valuable source of clean, in-state renewable power, which will help meet Connecticut’s and the greater New England region’s emission reduction goals. Application, p. 6. The solar energy produced by this Project will result in less electricity being used in the New England region that is derived from fossil fuels or nuclear energy. In generating power, the Project will not produce harmful emissions and, therefore, will help in a measurable way to reduce greenhouse gas emissions, global warming, ozone depletion, and the negative public health effects and hazards associated with fossil fuel and nuclear energy production.

Although temporary construction-related impacts to air quality might occur due to emissions from construction machinery or from construction-related dust, such impacts would be *de minimis* and, in any event, would not be greater than the existing impact(s) from the agricultural and gravel mining

equipment and operations that are currently taking place at the Property. Application, p. 60. Moreover, Gravel Pit Solar is committed to ensure that emissions will be mitigated, to the greatest extent feasible, by limiting idling times of equipment, ensuring that all vehicles and equipment are properly maintained, and by watering/spraying to minimize dust and particulate releases. *Id.* In addition, all on-site and off-road equipment will meet the latest standards for diesel emissions, as prescribed by the United States Environmental Protection Agency (“EPA”), and Gravel Pit Solar will consider reducing exhaust emissions by utilizing effective controls. *Id.*

In order to reduce and mitigate potential fugitive dust emissions, exposed soils will be periodically sprayed with water, as necessary, during Project construction and crushed stone aprons will be installed at access road entrances for dust control. *Id.* The quantity of earth to be moved or disturbed on-site during construction will be minimized to comply with applicable Connecticut guidelines. *Id.*

Based on the foregoing, an air permit will not be required for the construction and/or operation of the facility. *Id.* The Project will not only comply with CTDEEP air quality standards, but also will result in a net benefit to air quality in the State. As reflected in the results of the Carbon Debt Analysis (Application, Exhibit O), based on the EPA conversion factors, the Project is anticipated to generate over 253,000 megawatt hours (“MWh”) of Class I renewable energy in its first year of operation. Application, p. 18. The estimated annual emissions avoided by the Project is anticipated to be 107,463.6 metric tons (“MT”) of carbon dioxide (“CO<sub>2</sub>”). *Id.* To put this into perspective, the Project is anticipated to provide sufficient power to supply the electricity needs of approximately 23,000 households. *Id.* The estimated annual emissions avoidance is equivalent to GHG emissions from 23,217 passenger vehicles driven for one year, or 266,658,933 miles driven by an average passenger vehicle. *Id.*

The estimated carbon emissions that would be avoided are equivalent to the following:

- 12,401 homes' energy use for one year;
- 18,194 homes' electricity use for one year;
- 12,092,219 gallons of gasoline consumed;
- 10,556,341 gallons of diesel fuel consumed;
- 118,410,089 pounds of coal burned.

*Id.* As such, the Project will clearly meet the applicable air standards of the CTDEEP.

The record is equally clear that the Project will comply with CTDEEP Water Quality Standards. The Project will not require consumption of water resources, nor will it generate wastewater or water discharges as part of its operation and maintenance, and therefore will not adversely impact public water supplies or groundwater. *See* Application, p. 57.

Adverse impacts to ground and surface waters on and within the vicinity of the Project Site are not anticipated. Ketch Brook is the only principal surface water present in the vicinity of the Project Site. Application, p. 37. As explained in the testimony of Mr. Peterson, Gravel Pit Solar has designed the Project to ensure that this important cold-water fishery resource is protected and would not be adversely affected by the Project's construction, and subsequent operation:

*THE WITNESS (Peterson): Thank you. Yes, Mr. Morissette, you know, this, of course, is a concern. It is a cold water fishery. And, you know, there are several measures that were taken in the design. Essentially, the first one, not clearing any vegetation that's directly shading the brook. You know, there is an adequate setback from that resource such that no additional solar energy will directly impact the brook itself. Second, you know, in terms of stormwater management, there are no practices proposed that would pond water on the surface where it could warm up, and when the next storm comes along, you know, you get a slug of warm water coming out of your stormwater management feature.*

*I think one thing that is important to note is that for the portion of the project that is north of Ketch Brook, there will be no discharge, and Steve Kochis can correct me if I'm wrong, but no discharge up to and including the 100 year storm. All of the stormwater generated north of the brook will be infiltrated similar to the situation that exists out at the gravel pit today. South of the brook, again, basically by primarily, you know, limiting the development to the level farmland areas and staying out of the steeper ice contact deposits that separate the project from Ketch*

*Brook provides an adequate buffer, you know, to prevent the direct discharge of warm water into the brook.*

*The design proposed for stormwater management takes advantage of the fact that there's a lot of stratified drift out there. The reason why there are gravel pits there is because there is gravel, and this provides an ideal area within which to infiltrate stormwater and recharge the groundwater around the perimeter of the site. Particularly adding to this ability is the fact that, you know, the ice contact deposits have many closed depressions in them that are not wetland, and several of these will be used for the discharge of stormwater. So, you know, by taking advantage of existing site features, avoiding clearing of trees adjacent to the brook, avoiding any direct discharge, or the use of BMPs, that could discharge thermally enhanced stormwater, we believe we've protected this resource.*

November 12, 2020 Hearing Transcript, pp. 78 – 80.

While one Level A Aquifer Protection Area (“APA”) is present in the northern portion of the Project Site<sup>1</sup> (Application, p. 38), representatives of Gravel Pit Solar have been in contact with the CTDEEP Aquifer Protection Program and have been provided with the appropriate best management practices to safeguard the aquifer.<sup>2</sup> See CTDEEP November 2, 2020 Correspondence, p. 4. Gravel Pit Solar will adhere to those best management practices, as well as the Connecticut Department of Public Health’s *General Construction Best Management Practices for Sites within a Public Drinking Water Supply Area* (July 2014), and such adherence will ensure that the APA is not harmed by development of the Project. Application, p. 57. Additionally, Gravel Pit Solar believes a solar facility occupying portions of the identified Aquifer Protection Area, in comparison to the current land use (active mining operations) of the Project Site, poses less risk of spill or leak fuel storage, and correspondingly, less harm to the aquifer.

The Project has also been designed to minimize direct impacts to wetlands. Application, p. 54. One exception is the so-identified “Wetland 10,” which has been classified as an isolated, poorly

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<sup>1</sup> Specifically, the Level A Aquifer Protection Area is present within parcels 057-65-001, 057-65-002 and 057-65-007, comprising the Project Site.

<sup>2</sup> Of note, and as indicated in CTDEEP’s November 2, 2020 Correspondence (p. 4) to the Council, “[t]he proposed solar farm is not a regulated activity under the Aquifer Protection Area regulations or C.G.S. 22a-354a-bb and is not required to register with the Aquifer Protection Program.”

developed wetland that has been subject to routine disturbance due to the historic farming and gravel mining operations conducted on-site. *Id.*

Prior to construction, Gravel Pit Solar will prescribe the application of best management practices (“BMPs”) to avoid and minimize indirect wetland impacts and natural resource impacts during construction. Application, p. 55. This will likely consist of several components, including, but not limited to, the implementation of appropriate erosion control measures, temporary crossing guidelines, and protective measures for wildlife; contractor and sub-contractor education; imposing construction equipment storage and material staging requirements and/or restrictions; and, periodic monitoring and reporting. *Id.*

In addition, the stormwater management system design for the Project will also ensure no adverse effects to the quality of water present on and within the vicinity of the Project Site. Learning from experience in designing and constructing other solar projects in Connecticut, the Project’s approach to stormwater management has emphasized the use of non-structural controls, such as, pre-seeding and establishing permanent vegetation cover before construction starts. Application, p. 58. In this case, site preparation is anticipated in the summer and fall of the year preceding the spring start of construction. *Id.* Similarly, the Project will mitigate increases in peak discharge rates by promoting infiltration into the sandy soils present at various depths below finer textured soil mantles. The erosion control and stormwater management design of the Project has been completed so as to utilize the natural terrain of upland depressions (kettle holes) and upland glacial meltwater valleys to retain and infiltrate stormwater runoff, while also incorporating the construction of numerous excavated infiltration basins across the Project Site. This infiltration will also provide the water quality treatment required under the CTDEEP regulations and guidance documents, including the 2004 CTDEEP Stormwater Quality Manual and draft CTDEEP Solar Appendix I. This approach has been developed in consultation with CTDEEP personnel, who have been supportive of the Project’s stormwater design:

*Representatives of Gravel Pit Solar have been in contact with the Stormwater Program concerning this project and DEEP Stormwater Program personnel have visited the site. DEEP is highly supportive of the applicant's approach to employ pre-seeding of the site and the establishment of permanent vegetative cover on the site before construction activities commence. The schedule proposed on page 15 of the application to install stormwater controls, grade and stabilize the site and establish vegetative cover in the late summer/early fall of the year before beginning to install the solar facility the following construction season will be very helpful in preventing erosion problems on the site.*

CTDEEP November 2, 2020 Correspondence, p. 5. Gravel Pit Solar believes that the measures articulated in its stormwater design for the Project (Exhibit L of the Application), coupled with CTDEEP's stormwater analysis of the Project will be more than sufficient to address any stormwater and/or water quality issues that may result from the development of the Project.

Based on the foregoing, the Project will meet the applicable air and water quality standards of the State of Connecticut. In addition, and as detailed below, the Project will not have an adverse effect on other natural resource elements of the State, including wildlife and farmland resources.

## **B. The Project Will Not Adversely Affect Wildlife**

As detailed in the Wildlife Evaluations Technical Memorandum (Application, Exhibit I), VHB botanists and wildlife scientists initiated a series of field investigations, including wetland mapping, bird surveys, vernal pool surveys, wildlife observations, surveys targeting State-listed species, and the floristic composition and structure of the plant associations present within the Project Site. *See* Exhibit I, Wildlife Evaluations Technical Memorandum, p. 3.

These field efforts began in the late fall of 2019 and were finalized in July 2020 to observe wildlife during their active periods and plant species during their flowering period. Of the 11 animal species, 3 were observed during field investigations, and none of the 4 state listed plant species were observed. Consultants for Gravel Pit Solar submitted a letter to the CTDEEP Natural Diversity Data Base ("NDDDB") on July 19, 2020 concerning survey methods and protection strategies (the

“Conservation Measures Plan”) for the fifteen (15) State-listed plant and animal species potentially present at the Project Site. Review of this information is still on-going and no Final Determination letter for this Project has yet been issued by NDDB.

Gravel Pit Solar proposed a Conservation Measure Plan, which was provided in Exhibit J of the Application. The Plan provides the following protective features to ensure that the identified species are not harmed by development of the Project:

1. If construction activities are to occur during the nesting period for avian species (between early May and mid-August), vegetation removal, including forest tree removal and agricultural clearing, should be conducted before May 1<sup>st</sup> and after August 15<sup>th</sup>.
2. If vegetation removal must occur within the May 1<sup>st</sup> to August 15<sup>th</sup> avoidance window, areas to be cleared should first be surveyed to determine if breeding birds would be disturbed. If the survey concludes that breeding birds would be disturbed, a modified vegetation removal schedule will be implemented.
3. Installation of nest boxes for American kestrel outside the fenced perimeter of the solar arrays along the Project Site. Final locations for nest boxes will follow any guidance provided by the CTDEEP. Gravel Pit Solar will monitor the boxes each year or seek to assist the successful Kestrel Nest Box Program of Northwest and North Central Connecticut operated by the Connecticut Audubon Society (CT Audubon Society, 2019).
4. Environmental monitoring during construction in potential State-listed reptile and amphibian habitats will be conducted by a qualified inspector to ensure avoidance of impacts to these organisms, to the extent practicable.
5. Any State-Listed species encounters will be reported to the NDDB.
6. To minimize the possibility of “incidental take” of roosting bat species, Gravel Pit Solar will follow the guidance provided in the USFWS Final 4(d) Rule issued for the NLEB on January

14, 2016 (USFWS, 2017). Gravel Pit Solar will not perform any tree removal activities during the bat pupping season between June 1<sup>st</sup> and July 31<sup>st</sup> (USFWS, 2017).

Application, pp. 56 – 57. Because of these proposed protective measures, the Project will not adversely affect the species that may occur on or near the Property. See Exhibit J, CT DEEP NDDDB Correspondence, for the Project’s Conservation Measure Plan.

### **C. The Project Will Not Unduly Compromise Agriculture**

While the Project is designed to achieve the lowest degree of impact on wildlife and natural resources, the Connecticut Department of Agriculture (the “DOA”) has expressed concerns about the presence of farmland on the Project Site.<sup>3</sup> As explained below, these concerns are largely unfounded, and specific measures have been included in the Project layout, engineering design, and proposed management to avoid and minimize alteration of the existing farmland soil resources onsite. Application, p. 70. In addition, and as detailed further below, Gravel Pit Solar has expended significant efforts to facilitate a potential return to agricultural management after decommissioning of the Project. *Id.*

As a preliminary matter, when residential, commercial or industrial developments occur on Prime Farmland, the soil resource is irretrievably lost. Application, p. 48. In contrast, the proposed Project, which will occupy the Project Area for approximately 35 to 40 years (*Id.* at 69), will improve the quality of soil resources comprising the Property.

That having been said, Gravel Pit Solar has developed an Agricultural Soil Protection Plan (“Plan”) for the Project. See Application, Exhibit T, *Agricultural Soil Protection Plan*. This Plan was

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<sup>3</sup> Less than one third of the Project Site consists of tilled farmland. Application, p. 46. Parts of the existing agricultural fields are designated as Prime Farmland or Farmland of Statewide Importance by the Natural Resource Conservation Service (NRCS) (see Table 5 and Farmland Figure at Exhibit A). *Id.* at 46 – 47. Farmland Soils of Local Importance do not exist within the Town of East Windsor, and therefore, the Project Site. *Id.* at 47.



developed to minimize potential project effects on agricultural fields within the Project Area that consist of soil map units designated as “Prime Farmland” or “Farmland of Statewide Importance.” This Plan includes measures that have been developed to maintain and/or improve the quality of soil resources, to the extent practicable, with the expectation that the Project Site can be returned to row crop agricultural use at the end of the Project’s operation. One of the goals of this Plan is to improve and maintain soil health during the operational phase of the Project by sustaining soil functions including groundwater recharge, carbon sequestration, water quality, and minimizing soil loss due to erosion.

The Agricultural Soil Protection Plan prescribes best practices to protect farmland soil quality, and, where possible, improve measured soil quality (health) parameters compared to baseline conditions. As detailed on page 4 therein, best practices proposed include:

1. To the extent practicable, the solar facility will be developed without modifying grades within existing farm fields.
2. Notwithstanding the principle described above, parts of the facility which have been heavily eroded will be mitigated by grading and/or the installation of structural measures.
3. Wherever possible, facility roads are laid out over existing farm roads.
4. Where possible, new facility roads that cross farmland are laid out to be useful for future farming needs.
5. While the entire site will need to be accessed during this installation of solar infrastructure, routine travel patterns will avoid crossing farmland soils unless necessary.
6. When practical, use lower ground pressure tracked equipment and farm carts to haul construction materials across fields.
7. Vibration can cause compaction to penetrate deeper into the soil profile, operate track mounted pile drivers to disperse this force.
8. Construction equipment travel will be limited in agricultural fields when soils are visibility saturated following heavy precipitation events.
9. Use perimeter roads around fields to avoid crossing fields with heavy equipment, such as dump trucks or concrete trucks.

10. Cover crops and deep-rooted perennial vegetation will be used to promote the development of soil structure and reduce compaction potential.

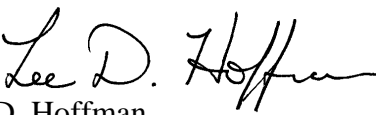
Agricultural Soil Protection Plan, p. 4. In addition, Gravel Pit Solar is considering developing pollinator habitat at the Site and/or utilizing the practice of solar grazing onsite, as it has done for other projects. Hearing Transcript, p. 50. Based on the foregoing, Gravel Pit Solar does not anticipate that the Project will have a substantial impact on Connecticut's farmland resources.

**VI. CONCLUSION**

The Project will provide numerous and significant benefits to the Town of East Windsor, the State of Connecticut and its citizens, and will place the Town of East Windsor at the forefront of green energy development, with minimal environmental impacts. Importantly, it also would help Connecticut and other New England states meet legislated environmental targets in a way that is cost-effective and fair to ratepayers. Accordingly, Gravel Pit Solar respectfully requests that the Council approve the location, construction, and operation of the Project by issuing a Certificate of Environmental Compatibility and Public Need for the Project.

Respectfully submitted,

**Gravel Pit Solar**

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