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October 28, 2021

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

Re: **Docket No. 505 – Haddam Quarter Solar, LLC Application for a Certificate of Environmental Compatibility and Public Need for the Construction, Maintenance, and Operation of a 2.8-Megawatt-AC Solar Photovoltaic Electric Generating Facility Located South of Haddam Quarter Road and North of Johnson Lane, Durham, Connecticut and Associated Electrical Interconnection**

**Letter in Lieu of Post-Hearing Brief**

Dear Attorney Bachman:

On behalf of Haddam Quarter Solar, LLC and wholly owned subsidiary of Louth Callan Renewable (“LCR” or the “Applicant”), please accept this letter in lieu of a Post-Hearing Brief, in support of the above-referenced application for the construction, operation and maintenance of a ground-mounted solar photovoltaic (“PV”) facility in Durham (“Town” or “Durham”), Connecticut (the “Facility”).<sup>1</sup>

**I. Introduction**

On July 9, 2021 LCR filed an application with the Siting Council (“Council”) for a Certificate of Environmental Capability and Public Need (the “Application”) for the construction, maintenance and operation of a 2.8-megawatt (“MW”) alternating current (“AC”)

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<sup>1</sup> As disclosed on the record at the September 28, 2021 evidentiary hearing, LCR will partner with Madison Energy Investments (“Madison”) in the development of the Facility. Upon completion of all Facility improvements, Madison will step in as the long-term owner and operator of the Facility. (Tr. pp. 18, 49-50).

ground-mounted solar PV facility on an approximately 49-acre parcel at 0 Haddam Quarter Road in Durham (the “Property”). The Facility would be developed on an approximately 10.9-acre portion of the Property, north of Johnson Lane and south of Hersig Brook (the “Project Area”). The remaining portion of the Property will not be developed or used by LCR. (LCR Exh. 1, Attachment 1).

## **II. Facility Description**

The Facility will consist of the installation of approximately 7,434 465W PV modules, 22 125 kW solar inverters, two (2) pad-mounted switch gears, two (2) transformers and one (1) interconnection point to the Eversource electric distribution system. The Facility will utilize a fixed tilt steel panel racking system attached to either pile-driven or ground screw foundations to allow for optimal utilization of the Project Area. Two separate access roads will extend into the easterly and westerly portions of the Project Area from Johnson Lane.<sup>2</sup> (LCR Exh. 1, p. 5).

The Project Area will be surrounded by a seven (7) foot tall farm-style fence that both meets National Electric Code standards and provides adequate security for the Facility. The farm-style fence is in keeping with the rural and agricultural character of the area. (LCR Exh. 1, pp. 4, 8, 11, 13, Attachment 6). The farm fence mesh is larger than the typical chain link fence and would also allow for smaller wildlife to move freely through the Facility. (Hearing Transcript (“Tr.”) p. 34). To further reduce the impact the Facility may have on the surrounding environment, LCR has also developed a robust planting plan to be installed along the Johnson Lane frontage of the Property.<sup>3</sup> (LCR Exh. 1, pp. 5 and 13, Attachment 6; Tr. pp. 72-74).

The Facility will interconnect to the Connecticut Light and Power Company d/b/a Eversource Energy (“Eversource”) distribution system via facilities and equipment currently on the south side of Johnson Lane and additional facilities in the westerly portion of the Project Area.<sup>4</sup> (LCR Exh. 1, pp. 6-7, Attachment 6). The proposed electrical interconnection will require the installation of a minimum of four (4) new electric distribution poles owned by

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<sup>2</sup> Access driveway locations into the project area were modified at the request of the Town and several neighbors following the virtual public information meetings to avoid conflicts with existing residential driveways on the south side of Johnson Lane. (LCR Exh. 1, pp. 7-9, Attachment 8).

<sup>3</sup> As described in more detail below, the unique fence design and landscape screening along Johnson Lane were incorporated into the Facility design by LCR in direct response to requests from adjoining landowners to the south and members of the Durham Planning and Zoning Commission. (LCR Exh. 1, pp. 7-9, Attachment 6).

<sup>4</sup> Eversource will be responsible for all necessary permits/approvals (if any) for this interconnection construction.

Eversource and three (3) new poles that will be owned by LCR. (LCR Exh. 1, Attachment 6; Tr. pp. 66-68). The interconnection facility design and construction will be performed in accordance with the Eversource Guidelines for Generator Interconnection and State of Connecticut, ISO-New England (“ISO-NE”), and Federal Energy Regulatory Commission (“FERC”) requirements as applicable. As part of the interconnection process, LCR has successfully completed a utility-sponsored Scoping Meeting, Interconnection Application Request and an Application Review, Impact Study, and has executed a Standard Fast Track and Study Process Generator Interconnection Agreement. (LCR Exh. 1, pp. 6-7; Exh. 6, Resp. Nos. 24, 26-29; Tr. pp. 44-47).

### **III. Facility Benefits**

The Facility is supportive of the State’s energy policies as set forth in Conn. Gen. Stat. § 16a-35k, including the goal to “develop and utilize renewable energy resources, such as solar and wind energy, to the maximum practicable extent.” The Facility will provide clean, renewable, solar-powered electricity and assist the State in meeting its legislatively-mandated obligations under the Renewable Portfolio Standard. (LCR Exh. 1, p. 7; Tr. pp. 42-43, 84).

The Facility will also assist the State of Connecticut in reducing greenhouse gas emissions and reducing criteria air emissions pollutants associated with the displacement of older, less efficient, fossil fuel generation facilities. As part of larger state, national and global strategies, the reductions in greenhouse gas emissions will have long-term secondary biological, social and economic benefits. (LCR Exh. 1, p. 7).

LCR anticipates that all of the Facility’s output will be virtually net metered (“VNM”) through the upcoming Public Act 19-35 Renewable Energy Tariff competitive solicitation program. Under this so called “Feed-in-Tariff” program, the Facility owner will sell the Renewable Energy Credits associated with the Facility to Eversource under the buy-all option. As a further benefit to Connecticut ratepayers under the Feed in Tariff program and the VNM carve out, the local school district and the Town of Durham, would receive bill credits thereby lowering overall energy costs. (Tr. pp. 17, 42-43, 94-96).

### **IV. Municipal Consultation and Public Participation**

Outreach to the municipal officials in the Town of Durham began in January of 2020, more than eighteen (18) months prior to the filing of the Application. LCR commenced the formal municipal consultation process on January 26, 2021, by submitting technical information to the First Selectwoman, Laura Francis. LCR appeared virtually at a joint meeting of the Durham Planning and Zoning Commission (“PZC”), Inland Wetlands and Watercourses Commission and Board of Selectmen on March 3, 2021 (the “Local Input Meeting”). Notice of

the Local Input Meeting was published in a local newspaper and sent to twenty-one (21) abutting property owners. Nearly 80 people attended the Local Input Meeting. LCR appeared again before the PZC on April 22, 2021 to present Facility modifications made in response to comments and recommendations from the public and local officials. As described above, these Facility modifications included the relocation of one of the site access driveways, the use of an alternative fence design more in keeping with the character of the area, the installation of a landscaped buffer along Johnson Lane and the reduction the overall “limits of disturbance” associated with the Facility. (LCR Exh. 1, pp. 7-9, Attachments 6 and 8). No members of the public signed up to speak at the Council’s September 28, 2021 Public Hearing.

**V. The Facility Will Not Have A Substantial Adverse Environmental Effect**

The record contains ample, unrefuted evidence to support a finding by the Council that the Facility would not have a substantial adverse impact on the environment at the Property or on the surrounding area.

**A. Natural Environment and Ecological Balance**

The Project Area is a mostly cleared and undeveloped portion of a larger parcel used, in part, for agricultural purposes (hay production). The layout of the solar arrays utilizes existing grades within the Project Area to the fullest extent possible in order to minimize the required amount of earth work. That said, some earth work will be necessary within the Project Area to control stormwater runoff and meet equipment layout requirements. Soil disturbance will also be required to install foundations for the PV panels, associated equipment, and site access roads. All racking will be designed to meet applicable local building codes for wind and snow loads. The panels will be installed with adequate room above the ground to allow snow to melt or slide off. (LCR Exh. 1, Attachment 6; Tr. pp. 24, 59-60, 108).

Fuel storage on site during Facility construction will be limited to a twenty-gallon diesel fuel cell located in the bed of the site supervisor’s pickup truck. The Facility’s inverter step-up transformers located at each equipment pad will use biodegradable oil for cooling purposes. An appropriate Spill Prevention, Control, and Countermeasure (SPCC) plan will be developed and incorporated into the Facility’s Site-Specific Operations and Maintenance (“O&M”) Plan. A preliminary O&M Plan for LCR Facilities was included in the Application. As discussed at the evidentiary hearing, a more complete and site-specific O&M Plan would be developed and submitted to the Council as a part of the Development and Management (“D&M”) Plan process, if the Application is approved. (LCR Exh. 1, pp. 9-10, Attachment 10; Tr. pp. 54-55, 84).

**B. Air Quality**

During operation, the Facility will not produce air emissions of any regulated air pollutants or greenhouse gases (e.g., PM10, PM2.5, VOCs, GHG or OzFarm). Therefore, no adverse effect on air quality is anticipated and no air permit will be required. (LCR Exh. 1, pp. 11-12).

**C. Scenic and Recreational Values**

No designated scenic roads or scenic areas and no public recreation areas are located near or would be impacted by the Facility.

The Property is generally a mix of agricultural fields and wooded areas. The Project Area is mostly cleared today except for a narrow strip of vegetation along Johnson Lane. LCR will maintain the substantial natural vegetative buffer surrounding a majority of the Project Area. These natural areas will help to reduce the potential for visual impacts of the Facility. The anticipated visibility of the solar arrays, in an area within a one-mile radius of the Property is limited almost entirely to the Project Area and the Property frontage along Johnson Lane.

The Applicant has developed an extensive landscaping/planting and screening plan in response to feedback from municipal officials and members of the community. Seven species of native trees and shrubs will be interspersed along Johnson Lane to provide visual interest and screening and to maintain the current unmanicured nature of the Property. (LCR Exh. 1, pp. 12-13, Attachment 6).

**D. Historic and Archeological Resources**

On behalf of LCR, Heritage Consultants LLC prepared a combined Phase 1-A/Phase 1-B Cultural Resource Survey Report and submitted that report for review to the State Historic Preservation Officer (“SHPO”). On August 23, 2021, the SHPO determined that the no additional archeological investigations were necessary and that no historic properties will be affected by the Facility. (LCR Exh. 1, pp. 13-14, Attachment 9).

**E. Habitat and Wildlife**

**1. Cultivated Agricultural Field and Hayfield**

The unrefuted evidence in the record supports a finding that the development of the Facility will not result in a significant alteration of the ground or agricultural soils in the Project

Area and therefore it will not result in a significant negative impact to the Cultivated Agricultural Field and Hayfield habitats. (LCR Exh. 1, p. 14, Attachment 9). In response to comments received from the Connecticut Department of Agriculture, LCR agreed to develop an agriculture co-use plan if the Facility is approved and submit that co-use plan for review and approval as a part of a D&M Plan. Some of the components of the co-use plan could include, continued agricultural use of the northwest portion of the Property; incorporating seed and grass mixes between the rows of solar panels within the Project Area; and the inclusion of native New England ecotype plants that are pollinator friendly species. (Tr. pp. 37-40).

## **2. Mixed Hardwood Forest**

The development of the Facility will not encroach into and therefore will not impact any existing mixed hardwood forest habitat located to the north of the Project Area. No trees will need to be removed to develop the Facility. To limit shading of the solar arrays, some limited tree removal along Johnson Lane may occur. (LCR Exh. 1, p. 14, Attachment 9).

## **3. Wetlands**

Development associated with the Facility will have no direct impacts on wetlands or watercourses on the Property. The Facility maintains a minimum 50-foot buffer to wetlands with the majority of the Facility's limits of disturbance being at least 80 feet from the nearest wetland areas. Construction activity will remain a minimum 150 feet from Hersig Brook. The nearest construction activity to the wetland areas bordering Hersig Brook would occur in the eastern end of the Project Area, where proposed temporary sediment traps are approximately 35 feet at their closest point. The Facility is fully compliant with the wetland setback requirements of the Connecticut Department of Energy and Environmental Protection ("CT DEEP") Stormwater General Permit Appendix I. (LCR Exh. 1, pp. 14-15, Attachment 9; Tr. pp. 24-26 and 107).

## **F. Water Quality**

The Facility will use no water during operations. Any water utilized during the construction of the Facility for dust suppression will be minimal and have no impact on the water quality near the Property. The Facility will comply with CT DEEP's water quality standards. The Facility will remain unstaffed, and no potable water uses, or sanitary discharges will occur. The solar panels proposed for use in the Facility do not contain GenX and PFAS chemicals, and those chemicals are not used in the panel's manufacturing process. (See LCR Exh. G, Appendix B). No liquid fuels are associated with the operation of the Facility. Stormwater generated by the proposed development will be properly handled and treated in accordance with the 2004 Connecticut Stormwater Quality Manual and Appendix I of the CT DEEP Stormwater General

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Permit. (See LCR Exh. 1, Attachment 9, Section 3.4). The Project Area is located in an area designated as Unshaded Flood Zone X, which is defined as areas of minimal flooding, typically above the 500-year flood level. (LCR Exh. 1, p. 15, Attachment 9).

**G. Stormwater Management**

The Facility has been designed to meet the 2004 Connecticut Stormwater Quality Manual and 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, and Appendix I of the CT DEEP's Stormwater Management at Solar Array Construction Facility requirements. (LCR Exh. 1, pp. 15-16, Attachment 9).

**VI. Conclusion**

The unrefuted evidence in the record clearly demonstrates that the Facility will have a significant public benefit and will not have a substantial adverse environmental effect. LCR therefore respectfully requests that the Council approve the Application for a Certificate of Environmental Compatibility and Public Need for the proposed Facility.

Sincerely,



Kenneth C. Baldwin

KCB/kmd

Copy to:

Graham Basecke, Senior Project Manager (*via email*)