



## COUNCIL ON ENVIRONMENTAL QUALITY

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Below are the comments of the Council on Environmental Quality on the Scoping of The Department of Energy and Environmental Protection (DEEP) proposed stakeholder engagement process on Sustainable, Transparent and Efficient Practices (STEPS) for Solar Development.

The State is at a pivotal point in electricity generation. The Governor's Council on Climate Change (GC3) Phase 1 Report and DEEP's Draft Integrated Resources Plan (IRP) laid out strategies to meet Connecticut's goal of one-hundred percent (100%) zero-carbon electricity supply by 2040. In the past, the Council on Environmental Quality (Council) and others noted<sup>1</sup> the inherent conflict between these goals and other State goals for preservation of farmland and forests. Accordingly, the GC3 Phase 1 Report recommended that the State "evaluate approaches and best practices for siting of renewable and non-renewable energy infrastructure to avoid loss of forests, farmland, and other sensitive lands." Similarly, DEEP's draft IRP recommended that DEEP launch a stakeholder engagement process to improve the transparency, predictability, and efficiency of solar siting and permitting processes in Connecticut.

The Council acknowledges the importance of this Scoping process in facilitating these objectives and offers the following answers to the questions (in bold below), that were posed in the announcement for the Scoping, with comments to assist DEEP in identifying policies, legislative actions, and best practices in the procurement, siting, and permitting of ground-mounted solar facilities in Connecticut.

### **Answers to Questions Posed in the Scoping Notice, with Comments on the Tentative Objectives in the Scoping Notice**

#### **1. Do you agree with the Tentative Objectives (numbered I through V below)? Should they be modified in any way?**

COMMENT: The Scoping called for stakeholder engagement for practices and processes relevant to new solar photovoltaic facilities in Connecticut that are grid-scale projects in front of the meter and larger projects under the virtual net metering and/or LREC/ZREC programs. Meeting the State's renewable energy goals will require an expansion of both behind the meter and grid-tied generation. Distributed generation strategies will need to be implemented if the benefits of renewable generation are to be equitably shared among all the State's citizens.

<sup>1</sup> Council on Environmental Quality, *Energy Sprawl in Connecticut*, February 2017.

The State's choices about the physical siting of solar facilities has environmental justice implications. Rooftop solar installations amount to a virtual reduction in electricity rates for single family homes. In areas of higher density, or where renters predominate, that might not be an option. Shared solar projects would allow residents in those areas to participate in the same energy savings as residents of single-family homes with solar panels and should be the subject of future Requests for Proposals (RFP).

Slightly off the topic of establishing solar energy generation facilities, but inherent within it, is the need to reduce demand for electricity. There have been many successful efforts to do this. Utility-administered energy audits, Federal programs like Energy Star certification for appliances, rebates on low energy lighting and utility-administered conservation measures are notable examples. The Council's analysis indicates that electricity savings from Connecticut's energy efficiency programs has declined by over forty percent (40%) in the last five years. More needs to be done and energy conservation could be an appropriate subject for a future RFP.

## **Tentative Objectives**

### **I. Ensure that new solar generation projects can be sited and built in a predictable, efficient, and transparent manner.**

COMMENT: The Council supports this objective; however, encouraging the predictable and efficient development of solar projects shouldn't equate to limiting the review of siting proposals and of their potential environmental impacts. It has been the observation of the Council that residents in many municipalities have been surprised when a proposal to build a solar generation project in their neighborhood is announced. Advanced identification, through State-wide planning or at the Councils of Governments level would improve the transparency and predictability of such projects and possibly lead to a more efficient siting process for project developers. A comprehensive analysis of potentially suitable sites at the local and/or regional level would be a major positive step forward over the current ad hoc siting process. A State master plan that identifies suitable sites, or conversely areas that are unsuitable for solar facility development, would enable municipal and regional input in the planning process. However, the identification of a potentially suitable site should not preclude a diligent review of each individual site's environmental attributes.

### **II. Include consideration of local laws concerning zoning, the environment or public health and safety.**

COMMENT: The Council agrees that project selection and regulatory review should consider local laws concerning zoning, the environment and/or public health and safety. While not a regulatory requirement for the Siting Council, DEEP could include "consistency of the project with the Town's regulations and plans" in the RFP selection process. The Siting Council already requires<sup>2</sup> this for cell tower proposals, which have far less potential for negative environmental impacts. This RFP approach to considering municipal preferences, should be included by DEEP in future RFPs.

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<sup>2</sup> The Connecticut Siting Council requires "the most recent conservation, inland wetland, zoning, and plan of development documents of the municipality, including a description of the zoning classification of the site and surrounding areas, and a narrative summary of the consistency of project with the Town's regulations and plans" in all applications for a Community Antenna Television and Telecommunication Facilities.

### **III. Avoid, or minimize and mitigate, to the maximum extent practicable, adverse impacts on the environment, agricultural, and natural resources.**

COMMENT: The Council agrees that avoidance of adverse impacts to environmental, agricultural, cultural, and natural resources should be a priority for energy development. This goal is a more complicated challenge than it appears initially, due to the need for specificity regarding the definition of the terms. Environment, especially in the context of climate change mitigation, must be understood to include the ecosystem services that are provided by open spaces, wetlands, forests and farmlands. Any proposal for siting solar energy that includes environmental mitigation, like establishing pollinator habitat, should be required to quantify whether there will be a net gain or loss of the attribute being mitigated. This principle should be applied to hydrological and wildlife considerations as well as to agriculture where existing open lands, orchards, brambles and farm fields already provide habitat for pollinators like squash bees, bumble bees and butterflies.

Agricultural mitigation proposals need to be considered in context of what is gained versus what is lost. Foremost in what can be lost are the agricultural soils upon which the farming economy is dependent. The use of sheep to control vegetation beneath solar arrays is becoming a common proposal that is presented as a continuation of the agricultural use of the site; but it is not. This practice is more appropriately thought of as sustainable landscaping than farming. Typically, the sheep that are used for this are often rotated among fields and are not owned by the owner of the property. The property owner does not profit directly from the sale of their meat, wool or progeny. In most cases, this is not a true substitute for the prior agricultural use. Further, there is no guarantee of the viability of the sheep grazing enterprise. If it becomes unprofitable, what then becomes of the proposed mitigation?

RFPs for solar facilities should be weighted to disallow, or strongly discourage, conversion of prime farmland to solar energy production. While discouraged, any RFPs that would allow location of energy facilities on prime agricultural soils must include the following restrictions: 1) Stripping of soils should not be permitted. This includes storing soils on site for “future” use. 2) Ballast or screw type pilings that do not require footings or other permanent penetration of soils for mounting are to be used for conventional ground mounted systems. 3) Soil disturbance for electrical routing must be minimal with any displaced soils to be temporary and recovered and returned. 4) No concrete or asphalt is to be allowed in the mounting areas. 5) Use of geotextile fabrics should be minimized. 6) Vegetative cover to prevent soil erosion is to be maintained. Additionally, environmentally sensitive decommissioning requirements that are guaranteed by bonding should be a requirement for all solar facility RFPs.

An important environmental consideration that warrants addressing, is that of protecting the State’s listed species. Currently, the Natural Diversity Database (NDDB) must be consulted before a project is constructed only if the proposed project is within or near a NDDB buffer area. This consultation occurs during the preparation of the documents that will be submitted to the Siting Council for approval of the project. Furthermore, State agencies are required to ensure that any activity authorized, funded, or performed by a State agency does not threaten the continued existence of endangered or threatened species. The NDDB only identifies areas where listed species have been reported. It is not common that an actual site survey for listed species is conducted. This creates an erroneous presumption that a potential site for solar development is devoid of State-listed species in the absence of a NDDB buffer area. A requirement of a site survey

for State-listed species prior to site selection should be a mandated addition to RFPs for energy projects.

#### **IV. Promote equity and environmental justice through community engagement.**

COMMENT: Promotion of environmental justice will demand more than being receptive to community involvement. From the onset, proposed projects should be evaluated with regard to whether they will improve the economic and environmental circumstances of environmental justice communities. For example, local agriculture provides the potential of access to fresh foods via farmers' markets or through retail outlets that source locally. Loss of those farms to solar energy facilities could have environmental justice implications that would be apparent only after careful analysis of all potential consequences.

Currently, solar energy generation is predominantly from large, grid-scale "in front of the meter" projects or from roof mounted solar panels. Installation of rooftop solar is a virtual rate reduction for single family residences which is not available to renters or condo owners, in most cases. In areas of higher density, or where renters predominate, it is important that there be options for shared solar and virtual net metering to allow residents in those areas to realize the same benefit as do residents of single-family homes with solar panels.

#### **V. Ensure that state and/or ratepayer-supported procurements align with the objectives, above.**

COMMENT: The Council supports this objective and urges adoption of the Council's recommendations in any resulting actions.

### **2. Do you agree with the Tentative Facility Scope? Should it be broadened or narrowed? Should other renewable or non-renewable facility types be included, now or in the future?**

#### **Tentative Facility Scope:**

DEEP tentatively proposes to focus this stakeholder engagement process on practices and processes relevant to new solar facilities developed in Connecticut that are grid-scale projects in front of the meter and larger projects under the virtual net metering and/or LREC/ZREC programs.

COMMENT: Virtual net metering and shared energy facilities will be important to meeting the State's goals in an equitable fashion. As discussed above, thought should be given to encouraging more rooftop/structure-mounted solar facilities and a wide array of behind-the-meter generation.

### **3. Do you agree with the Proposed Topics? Should they be modified in any way?**

#### **Potential Topics:**

The stakeholder engagement process will include the following potential topics:

#### **1. Preferential solar siting criteria which will take into consideration factors including but not limited to natural resources and habitats, water quality and quantity, topography, equity, and degree of development;**

COMMENT: Preferential solar siting criteria are important to encourage solar facilities that meet energy needs without adversely affecting environmental assets or natural resources and doing so in a socially equitable manner. Open spaces, farmed land and forested land provide innumerable ecosystem benefits such as food access, flood control, water filtration and recharge, erosion control, recreational opportunities, support of wildlife and wildlife diversity, in addition to carbon absorption and climate moderation. Those environmental assets should be weighted heavily enough to discourage project development in core forests, on prime and important agricultural soils, and on unsuitable terrains. See responses above for Objectives II, III and IV.

It has been stated by some that such restrictions in RFPs are unnecessary because solar energy facilities are already regulated at the Siting Council and are more regulated than other commercial developments like shopping centers. Development spurred by RFPs can be distinguished from other industrial and commercial development proposals because they are government sponsored and must consider other publicly identified priorities such as the ecosystem benefits that are described above.

The Siting Council does a good job of considering energy proposals in the context of the environmental issues inherent at a site. Off-site impacts, especially at the landscape or community scale are seldom raised. Regional considerations are the appropriate concern of DEEP's energy RFPs. The inclusion of explicit siting prohibitions in DEEP's RFPs and /or solicitations under the LREC and ZREC program would make siting decisions easier for all parties involved. If project developers had a better sense of what can be included in siting solar energy facilities, fewer projects would make it to the point where changes are required after submission to the Siting Council. Examples of absolute prohibitions recommended for solar energy RFPs include restricting construction on slopes that would induce erosion or in core forests, or on prime agricultural soils. Though there are already some constraints<sup>3</sup> on project development in those areas, they are not absolute and can become a topic of deliberation at the Siting Council. While Public Act 17-218 requires consultation with DEEP prior to the siting of a solar energy facility in areas of core forest, facilities greater than 65 MW, facilities that seek a Certificate of Environmental Compatibility and Public Need, or are less than 2 MW are excluded. It should be recognized that locating a solar array in a core forest not only destroys critical habitat, but impacts species well beyond the site, and converts more of the State's core forest to edge forest or perforated forest. The Council's analysis of core forests indicates that between 1985 and 2015, there was a decline in core forest acreage of approximately fifteen percent<sup>4</sup>. Similar off-site impacts threaten the viability of both nearby individual farms and agricultural communities.

## **2. Benefits and potential challenges associated with the location of the solar facility, including but not limited to core forest, prime agricultural land, wetlands, and environmental justice communities;**

COMMENT: See responses above for Topic 1 and for Objectives II, III and IV.

## **3. Types of design and construction practices available to both maximize the energy efficiency of solar projects and minimize detrimental impact to natural resources, community resources and the environment and implementation challenges such as the timing of the in-service date;**

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<sup>3</sup> Connecticut General Assembly [PA 17-218](#).

<sup>4</sup> Council on Environmental Quality, annual report, [Environmental Quality in Connecticut](#), April 2021.

COMMENT: The need to rapidly deploy renewable energy generation should not override careful design that considers the factors discussed above.

The Council wishes to note that while the focus of DEEP's questions is on ground-mounted solar facilities, DEEP should continue to support and expand the application of roof/structure-mounted solar facilities, which have limited impacts on environmental resources. The Council's analysis<sup>5</sup> of certain solar facilities in the State indicates that over sixty percent (60%), by count, were developed on rooftops or other structures. A policy of encouraging rooftop deployment that depends on existing transmission and distribution infrastructure is both predictable and efficient.

#### **4. Opportunities to optimize regulatory and permitting requirements and processes depending upon the size of the solar project and siting considerations including sequential steps and opportunities to streamline the process.**

COMMENT: While project size and location can be determinative of environmental impact, extreme caution must be exercised in streamlining sound, established regulatory and permitting requirements and processes, especially for large projects.

#### **5. Siting and permitting challenges specific to developing previously disturbed land such as brownfields and landfills;**

COMMENT: Depending on the time that has passed since closure, a brownfield could acquire a habitat that might need to be considered in siting of a solar energy facility. Nonetheless, the State should encourage the productive use of brownfield properties and landfills that take this into consideration.

Brownfield and landfill sites are commonly described as ideal locations for solar farms, but they can have limited potential if they are distant from transmission or need extensive remediation. Most municipalities contain other kinds of unutilized or underutilized properties (like vacant retail plazas) on which solar panels could be located. These locations should be weighted favorably in future RFPs and considered in the upgrade of transmission lines and substations.

#### **6. Types of incentives, selection weighting factors, and timing of commitments relating to siting that may increase the effectiveness of a solicitation, including but not limited to DEEP-run procurements, LREC/ZREC, and shared clean energy facilities (SCEF).**

COMMENT: If streamlining and incentives are to be utilized, they should apply only to proposals that meet all the weighting factors in an RFP that are based on environmental considerations, including environmental justice aspects of a proposal.

Rooftop solar and other distributed generation strategies could alleviate the restrictions to expansion of solar where there is limited transmission capacity. Additionally, incentives through RFPs for rooftop solar and distributed generation can provide equitable access to lower cost electricity for environmental justice communities.

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<sup>5</sup> Analysis of RPS-certified facilities greater than or equal to 250 kilowatts (kW), PURA – Updated 4-7-2021.

**4. How should the stakeholder engagement process be organized? What entities or stakeholders should be included or consulted?**

COMMENT: At minimum, the Siting Council, which is the arbiter of solar facilities greater than 1 megawatt (MW) should be consulted, as should the Department of Public Health, which would have an interest in siting factors that might have an effect on public or private drinking water resources. The Departments of Agriculture, and Economic and Community Development should be interested in weighting factors intended to protect agricultural soils and provide economic opportunities for residents of the State. Non-government organizations that represent agriculture and food systems need to be included.

The Departments of Administrative Services, Transportation, and Economic and Community Development might be aware of areas with the potential to site solar energy facilities. Electricity distribution companies and related electricity generation utilities should provide input, as should regional planning advocates and Councils of Government. Efforts should be expanded to reach as many clean energy and environmental advocacy groups as possible. Groups representing Black and Indigenous People of Color (BIPOC) will need to be invited to participate.

Very important are the electricity distribution companies. Lack of transmission capacity is frequently identified as an impediment to allowing broader choices in locating solar facilities. Transmission capacity expansion needs to be a priority in the long term, if ecologically sensitive areas are to be avoided when choices are made about locations for solar facilities.

Thank you for consideration of these comments and for DEEP's commitment to soliciting input on this issue which is central to the State's economy and ecology.

Sincerely,

A handwritten signature in cursive script, appearing to read "Peter Hearn", with a long horizontal line extending to the right.

Executive Director