

Memorandum

To: DEEP Commissioner Katie Dykes,
DEEP.OPPD@ct.gov
RE: STEPS

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Re: Comments in Response to the Scoping Meeting for DEEP's Sustainable, Transparent, and Efficient Practices (STEPS) for Solar Development held on Wednesday, June 16th, 2021

Thank you for convening this stakeholder engagement process for Sustainable, Transparent, and Efficient Practices (STEPS) for Solar Development. Much like the excellent work done by DEEP and other stakeholders during the Governor's Council on Climate Change (GC3) proceedings, we applaud Commissioner Dykes and DEEP staff for taking the time to provide a robust and transparent forum for consideration of the exceedingly important issues related to the deployment of solar facilities and the conservation natural resources of Connecticut.

General Comments:

According to the scoping notice for STEP dated June 7, 2021:

Tentative Facility Scope: DEEP tentatively proposes to focus this stakeholder engagement process on practices and processes relevant to new solar photovoltaic 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: The scoping of this stakeholder engagement process should be set out based upon a project size (as either the acreage potentially impacted by a solar deployment or by its megawatt capacity). From a natural resources conservation perspective, it will be important to understand what natural resources will be impacted (both individually and cumulatively) by the new solar photovoltaic facilities to be deployed over the next few years. Historic practice has revealed the project developers will tend to design projects just below a regulatory threshold to avoid permitting and siting obligations and this can lead to the avoidance of legitimate reviews of potential natural resource impacts.

A better understanding of the rationale for the reasons for the existing regulatory thresholds will benefit the transparency goals of the STEP stakeholder engagement process. (See the written comments in [House Bill 6498](#) - AN ACT CONCERNING THE SITING OF CERTAIN SOLAR FACILITIES ON FARMLANDS AND CORE FORESTS (2021); [Public Meeting on Solar Siting](#) (2018); and [Public Act 17-218](#) - AN ACT CONCERNING THE INSTALLATION OF CERTAIN SOLAR FACILITIES ON PRODUCTIVE FARMLANDS, INCENTIVES FOR THE USE OF ANAEROBIC DIGESTERS BY AGRICULTURAL CUSTOMER HOSTS, APPLICATIONS CONCERNING THE USE OF KELP IN CERTAIN BIOFUELS AND THE PERMITTING OF WASTE CONVERSION FACILITIES (2017).

Additionally, the scoping notice for STEP states:

According to analysis in the Integrated Resources Plan (IRP) draft issued by DEEP in December 2020, between 2,200 and 3,500MW of additional solar resources could be developed throughout New England to help meet Connecticut's goal of 100% zero-carbon electricity supply needs by 2040. Not all of this solar generation will be built in Connecticut, and some of it can be sited on buildings, parking canopies, and other structures. For larger, ground-mounted solar projects that will be developed in Connecticut, it is critical to ensure that efficient, cost-effective development is: consistent with the protection of our valuable natural resources such as core forests, farmlands, wetlands, water quality and quantity, and air quality; supports equitable, economic development and growth; and incorporates community input to promote equity and environmental justice.

Comment: The scoping stakeholder engagement should set out an estimate of how much of the “. . . 2,200 and 3,500MW of additional solar resources [that] could be developed throughout New England” would come from “solar generation . . . [that] can be sited on buildings, parking canopies, and other structures” versus an estimate of how much of the needed additional solar will come from “. . . larger, ground-mounted solar projects.” From both a ratepayer cost and natural resource impact perspective the ratio of solar sited on “buildings, parking canopies, and other structures” as compared to “larger ground mounted projects” deserves more detailed consideration. We should examine the deployment of new solar resources as a portfolio of investments and categorize these investments to better understand that portfolio.

An analysis of the impact to the grid from the deployment of new solar resources should also be examined. Should there be a preference for new solar deployed in close proximity to areas of high electric demand and congestion problems versus distant generation with possible transmission loss? In other words what is the optimal ratio of solar sited on “buildings, parking canopies, and other structures” versus “larger ground mounted projects”? (For example, should 50% of new solar come from solar sited on “buildings, parking canopies, and other structures” and 50% from “larger ground mounted projects”? This question will become critical to understating what impacts we are willing to accept and still protect the “valuable natural resources such as core forests, farmlands, wetlands, water quality and quantity, and air quality” and the ecosystem and food production services provided by these natural resources.

Connecticut’s existing electric distribution system was created using a centralized model of electric generation with base-load, intermediate, and peaking electric generation facilities. Deregulation of the electric industry has also has a profound impact on how electricity is delivered in Connecticut.

There is currently a need to more deploy solar because the benefits solar offers to mitigate the impact of climate change. However, current solar technology has only limited ability to provide electrical generation 24 hours a day. Query: Are we deploying solar in a way that best facilitates a change to the “grid of the future?”

A few years back there was a push to expand the use of microgrids because of the unique ability of these microgrid systems to enhance reliability in the face of climate change related “super storms.” The scope of this stakeholder engagement process should include consideration of the expanded use of microgrids (especially those that use solar technology) There should also be conducted a basic analysis of the anticipated changes to the electric grid system that are needed so that the grid can better respond and deploy solar resources during the hours of the day that these solar resources are available.

Finally, the scoping notice indicates DEEP will issue a proposed schedule for this proceeding subsequent to the initial Scoping Meeting. We look forward to that schedule and ask what DEEP will do at the end of the process? Will there be a written report? And, is there a target date for the release of a draft report?

Comments on Potential Topics:

As set out in the scoping notice for STEP:

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;
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;

Comments on Nos. 1 & 2: Ecosystem services have not been appropriately recognized in the current selection and approval process for solar projects. Improvement of the existing and innovative [Forestland Habitat Mapping / Screening Tool](#) is needed. At a minimum, this tool should be expanded to include grassland bird habitats.

Also, potentially more protective setbacks from inland wetland and watercourses should be considered for solar developments (See [DEP](#)

[Guidance](#)). And, best practices for soil health and storm water management need to be updated and integrated into the permitting and enforcement process.

A bill on the siting of solar was considered by the Environment Committee this past Session. We ask that you incorporate by reference into the STEP stakeholder process all of the testimony provided on [House Bill 6498](#) - AN ACT CONCERNING THE SITING OF CERTAIN SOLAR FACILITIES ON FARMLANDS AND CORE FORESTS.

Finally, the National Audubon Society just completed a report entitled: [Natural Climate Solutions Report Maintaining and Restoring Natural Habitats to Help Mitigate Climate Change](#). We ask that you consider this scientific report during the STEP stakeholder process as we believe it will help inform many of the policy considerations about where best to site solar facilities.

(Continued) The stakeholder engagement process will include the following potential topics:

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

Comments on Nos. 3, 4, 5 & 6: A comprehensive analysis of the factors that are considered when selecting sites and approving or denying such projects for solar deployment is needed.

As noted in Audubon's testimony on House Bill No. 6498 (Here is an excerpt – Citations omitted.):

A recent article in the Connecticut Examiner by Brendan Crowley entitled, "Environmental Priorities —Solar Energy and Land Conservation —Compete in the Legislature," sets out a discussion of the issues presented by House Bill No. 6498 – AN ACT CONCERNING THE SITING OF CERTAIN SOLAR FACILITIES ON FARMLANDS AND CORE FORESTS.

According to Mr. Crowley's article, "The 2017 law has not resolved a struggle between land conservation advocates and advocates of expanding generation of renewable energy..." Here are some reasons for the continued struggle between energy and environmental policies. On one hand global climate change demands a reduction of carbon and other greenhouse gas emissions; yet, adaptation to climate change requires maintaining natural areas to support ecosystem services like flood and storm protection (resilience), carbon sequestration, habitat, and water quality (environmental), and recreation (community).

...

We also believe there should be more of an affirmative responsibility on the part of developers to investigate the land that they are seeking to convert into a solar photovoltaic facility. Each project should not only complete a review of DEEP's database of known habitat for endangered, threatened and species of special concern, but should also conduct an on-site survey by a consulting biologist to determine if habitats of any of such species exist on the proposed site. That review should also survey for species of greatest conservation need as outlined in DEEP's Wildlife Action Plan.

In closing, we would also like to address the “double standard” argument noted in Mr. Crowley’s article. According to that argument, big box stores are being held to a higher environmental standard than grid scale solar. Generally speaking, big box stores are not receiving financial subsidies from electric ratepayers or governmental entities. So, to the extent that “public” subsidies are provided to private solar development it is proper to incent the proper siting of the solar facilities and require adequate environmental protections are implemented.”

We thank you for the opportunity to provide comments and we understand the STEP stakeholder engagement process will be holding additional public forums. We look forward to providing additional information through that process.