Environment Committee - Public Hearing of March 19, 2021

House Bill No. 6498 – AN ACT CONCERNING THE SITING OF CERTAIN SOLAR FACILITIES ON FARMLANDS AND CORE FORESTS

Thank you for the opportunity to submit testimony on behalf of the National Audubon Society through its affiliate state office, Audubon Connecticut. The National Audubon Society protects birds and the places they need, today and tomorrow, throughout the Americas using science, advocacy, education, and on-the-ground conservation. Our conservation network extends statewide and includes more than 31,000 members, five Connecticut chapters, and many partners along the Atlantic Flyway.

The strength we derive as part of the National Audubon Society enables us to contribute to a broader conservation strategy—one that recognizes the need to conserve wildlife on a wide geographic scope. See the link below for more information about Audubon nature sanctuaries and centers that are part of a broad network of critical habitats for a host of birds and other wildlife species as well as peaceful respites for people. Our centers serve as community hubs for education, conservation, and engagement with nature.


House Bill No. 6498 – AN ACT CONCERNING THE SITING OF CERTAIN SOLAR FACILITIES ON FARMLANDS AND CORE FORESTS

By way of background, during the regular Session on the 2017 the General Assembly passed Senate Bill No. 943 - 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 and Governor Malloy signed it into law as Public Act 17-218.

Senate Bill No. 943 (Raised and File No. 275) included the following language in Section 2: “There shall be a rebuttable presumption that the construction or location of a solar photovoltaic facility with a capacity of two or more megawatts to be located on prime farmland, as defined by the United States Department of Agriculture, or on forest land is not environmentally compatible.” This language was amended out of the final bill on the floor of the Senate with a strike all amendment.¹

¹ https://www.cga.ct.gov/2017/amd/S/2017SB-00943-R00SA-AMD.htm
The final language of Senate Bill No. 943 included the following:

Sec. 2. (NEW) (Effective July 1, 2017) In any solicitation issued under section 16a-3f, 16a-3g, 16a-3h or 16a-3j of the general statutes, as amended by this act, after July 1, 2017, the Commissioner of Energy and Environmental Protection shall consider the environmental impacts of any proposal located in the state that is received in response to such solicitation, including, but not limited to, the impacts to prime farmland and core forests and the reuse of sites with limited development opportunities such as brownfields and landfills, as identified by the commissioner.

Implementation of Public Law 17-218 has been difficult since enactment. In fact, on March 9th, 2018, the leadership of the Environment Committee convened a public informational meeting to discuss this new law and invited the Commissioners of Agriculture, Energy and Environmental Protection and the Chair of the Connecticut Siting Council to discuss the recently enacted law. A set of questions was given to each participant who then provided written and in-person responses (Documents related to this informational meeting can be found on the Environment Committee’s webpage under the heading “Informational Meeting – Connecticut Siting Council Application Determination Process.” Also, CT-N recorded the informational meeting.3)

DEEP’s response to the Environment Committee’s questions No. 1 and 2 are worth noting:

DEEP’s Answers to Environment Committee Questions

1. When considering an application to construct a solar photovoltaic facility of more than 2 megawatts on prime farmland or core forest land, what is your agency’s understanding of the role of DEEP and DoAg?

   a. There are two paths that a developer of a solar facility of 2 MW or more can pursue at the Siting Council. If the developer pursues the certificate proceeding and the project will impact forest or parks, then DEEP can submit comments that assess the impact of the project to the Siting Council. On the other hand, if the developer pursues the faster and less expensive route of petitioning the Siting Council for a declaratory ruling and the project is to be located on forestland, then the developer must obtain a written determination from DEEP that the facility will not materially affect the status of such land as core forest. Similarly, if the facility is proposed on prime farmland, the developer of the facility must request from DoAg a written determination that the facility does not materially affect prime farmland. If the facility is proposed on both core forest and prime farmland then the developer must request the written determination from both DEEP and DoAg.

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2 https://www.cga.ct.gov/env/
3 https://ct-n.com/ctnplayer.asp?odID=15097
b. Once a written determination is requested, DEEP evaluates the application and the proposed site and may meet with the developer to discuss the site and request further information if needed. After reviewing the application and concluding that the facility does not materially affect core forest, DEEP will issue a written determination to that effect for the Siting Council.

2. If DEEP or DoAg determine that an applicant's proposal will have a material affect on the status of the land as prime farmland or core forest land, how does this agency finding impact the Siting Council's analysis?

a. If DEEP or DoAg determines that the proposed facility will materially affect the status of core forest or prime farmland, then DEEP and DoAg will not provide the written determination. Public Act 17-218 provides that any facility sited on core forest or prime farmland that is seeking a declaratory ruling must obtain this written determination. Therefore, if an application does not receive this written determination, it cannot proceed through the petition process and must either go through the certificate proceeding or adjust the project so that it does not materially affect core forest or prime farmland.

Given the language of Section 2 (above) and the entirety of Public Law 17-218, the Department of Energy and Environmental Protection (DEEP) created a GIS-tool known as the Forestland Habitat Impact Map⁴ and used it in a prior energy solicitation. A summary of this tool is provided below.

This screening tool is intended to identify areas of potential forestland habitat impacts relative to solar installation applications made to the Connecticut Siting Council. Search by address or place name to locate a site, or upload a project footprint and view the Forestland Habitat Impact data. If the project intersects with the Forestland Habitat Impact Map there is a potential for material effects to core forest. Follow instructions in the relevant application...⁵

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⁴ [https://ctdeep.maps.arcgis.com/apps/webappviewer/index.html?id=7b81844bab634281b544c20bf2d7bfb8](https://ctdeep.maps.arcgis.com/apps/webappviewer/index.html?id=7b81844bab634281b544c20bf2d7bfb8)

⁵ Background: This spatial screening layer identifies prime continuous and connected core forestland blocks. The component layers used to create this data represent resources which could be negatively impacted by loss or degradation of core forestland habitat. Degradation of habitat can include increased edge effects, impediments to organism migration, and decreased water quality. Any conversion of natural habitats to developed land use within the mapped core forestland would be considered to materially affect the core forestland in these areas. Developed land use includes impervious surface, structures, roads, and turf grass. The screening layer was derived from 30m pixel raster data and may include areas that are already developed. If your project area is confined to the developed areas, it may be determined to not materially affect the core forestland in this area.
Recently, the DEEP used its authority under Public Act 17-218 on a proposed solar project in Burlington, CT\(^6\) to indicate that the project had the potential to materially affect core forest. According to a letter dated December 1, 2020 and submitted to the Connecticut Siting Council:

\[\ldots\text{As part of DEEP’s Forestland Habitat Impact Assessment Guidelines, we consider any disturbance to or conversion of natural habitats within the mapped area as an indication of potential material affect to core forest. This project falls within our mapped area. Sixteen (16) forested acres will be cleared for the installation of the solar panels, associated systems and site work involved with this proposed project. This clearing will result in the loss of 6.98 core forest acres and a conversion of an additional 7.41 core forest acres to edge forest acres.}\]

Having established the presence of core forest on the project site, we then evaluated the habitat impacts that would be occasioned by the loss of this forest. The presence of eastern box turtle, a State species of special concern, is indicative of high-quality core forest habitat. Therefore, we seek to preserve mobility and connectivity for this and other species. Additionally, DEEP prioritizes preserving core forest connectivity for species not included in the site inventory through the preservation of sufficient undisturbed buffers around the site’s wetlands. The buffers proposed in this petition may be sufficient to protect the water quality of the site’s wetlands and watercourses, but current research calls for the preservation of 300’ buffers as a best management practice to protect connectivity in the forest along wetland movement corridors. The current proposal does not provide for this level of protection for two of the three identified wetlands at the project site. \textit{We therefore deem that the habitat impacts to this core forest block that would arise from the solar development as proposed would materially affect this host block of core forest.}

Connecticut is one of the most heavily forested states in America. \textit{Our forests clean our air and water, shelter our wildlife, sequester carbon, contribute tens of millions of dollars to our economy, and add immeasurably to the quality of our lives. Yet every day, our forests are under threat. Invasive insects and diseases and our dense and growing human population continue to stress our forests in unprecedented ways. Thank you for helping us to conserve a healthy core forest for future generations, providing public transparency and working to make thoughtful development choices. ...} (Emphasis added.)

Many new solar projects are being proposed to the Connecticut Siting Council and many have been approved. These projects can be viewed on the Siting Council’s website\(^7\) (by town or type of action). There have also been some significant enforcement actions by DEEP\(^8\) in response to solar installations in the towns of East Lyme, Lebanon and Sprague.

On a positive note, one recent (2018) solar proposal is worth noting.

**PETITION NO. 1348** – Safari Energy, LLC, as agent for West Farms Mall, 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 2.019-megawatt AC solar photovoltaic electric generating facility located at West Farms Mall, 1500 New Britain Avenue, **West Hartford** and 500 South Road, Farmington, Connecticut. **Approved 9/27/18.**

DEEP sent a letter\(^9\) to the Siting Council on this application that stated, in part:

> ...The fact that this project is proposing to use rooftops and a solar canopy system located on an existing parking lot—rather than siting these solar facilities on core forests or prime farmland—is to be applauded. DEEP appreciates the way this applicant has designed this project to avoid negative impacts to the landscape as it develops a renewable energy facility.”

We agree. **More incentives are needed to direct solar installations to rooftops and over existing parking lots rather than to farmlands and forests. Utilizing forests and farmland for solar deployment is at odds with longstanding environmental conservation policies.** As stated by DEEP, “Our forests clean our air and water, shelter our wildlife, sequester carbon, contribute tens of millions of dollars to our economy, and add immeasurably to the quality of our lives\(^10\).”

In addition, rooftop and solar canopies over existing parking lots, are more likely to be close to areas of electric demand. This decentralized approach is a modern fit to renewable energy deployment. Rather than the old “coal plant model” where electricity is generated at a central plant and sent over wires and poles to electric customers, a decentralized approach allows for local generation and deployment using existing developed areas. Solar, and some other renewable sources of energy, fits this decentralized model better than the old “coal plant model.” We need to re-examine the entire solar incentive and subsidy structure to make certain our incentives drive solar development to the most appropriate sites—and not to forests and farmlands that support a range ecosystem services.

\(^7\) [https://portal.ct.gov/CSC/](https://portal.ct.gov/CSC/)
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).

House Bill No. 6498 – AN ACT CONCERNING THE SITING OF CERTAIN SOLAR FACILITIES ON FARMLANDS AND CORE FORESTS proposes to reduce the threshold for a solar photovoltaic facility with a capacity from two megawatts to one megawatt to receive a writing from Department of Energy and Environmental Protection that represents to the Siting Council that such project will not materially affect the status of such land as core forest. (It makes a similar threshold reduction for prime farmland and farmland of state-wide importance for the Department of Agriculture.)

We believe the better view is to tie this review of a solar project to the acreage of the project rather than to its megawatt size. As the DEEP letter to the Siting Council referenced earlier in this testimony noted, the evaluation of the impact on the environmental resource considers the acreage of impact. We believe this is an appropriate approach. A threshold for review by DEEP or DoAg should be between five and ten acres as this is the approximate acreage size range for a one megawatt solar project.12

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12 Depending on the specific technology, a utility-scale solar power plant may require between 5 and 10 acres per megawatt (MW) of generating capacity. Like fossil fuel power plants, solar plant development requires some grading of land and clearing of vegetation. For example, many concentrating solar power (CSP) plants need to be constructed on flat land with less than 1-percent slope. Utility-scale photovoltaics (PV), on the other hand, can utilize land with steeper slopes and no water access. (https://www.seia.org/initiatives/siting-permitting-land-use-utility-scale-
solar#:~:text=Depending%20on%20the%20specific%20technology,land%20and%20clearing%20of%20vegetation)
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.13

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 that 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.

The better view is to create incentives for solar deployment such that each big box stores and associated parking areas include rooftop and canopy solar photovoltaic electric generation like the project at the West Farm Mall noted above in this testimony.14

Thank you for the opportunity to present testimony on this proposal. Should you have any questions, please contact Robert LaFrance, Director of Policy, Audubon Connecticut, National Audubon Society at 203.668.6685 or at Robert.LaFrance@Audubon.org.


14 PETITION NO. 1348 – Safari Energy, LLC, as agent for West Farms Mall, 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 2.019-megawatt AC solar photovoltaic electric generating facility located at West Farms Mall, 1500 New Britain Avenue, West Hartford and 500 South Road, Farmington, Connecticut. Approved 9/27/18.