



Advocacy Department

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June 30, 2016

Kaitlin Kelly
Department of Energy Resources
100 Cambridge St., Suite 1020
Boston, MA 02114

Via email: DOER.SREC@state.ma.us

Re: DOER Solar Incentive Program

Dear Ms. Kelly:

On behalf of Mass Audubon, I submit the following comments on the Department of Energy Resources' (DOER) new solar incentive program pursuant to Chapter 75 of the Acts of 2016.

Mass Audubon supports the development of renewable energy facilities, including solar, to address climate change and meet the greenhouse gas reduction targets established in the *Global Warming Solutions Act*. At the same time, we also recognize a need for DOER to refine Solar Renewable Energy Credit (SREC) programs to better harmonize renewable energy goals and projects with other important state programmatic goals including protection of forests, farmlands, rare species habitats, and wetlands.

General Comments – Harmonize SRECs with Other State Environmental Programs

Ch. 75 of the Acts of 2016 recognized the need for refinement of the solar incentive program to address several factors as this industry continues to mature, including economic factors, location of solar generation where it benefits the distribution system, and environmental benefits. We appreciate DOER's efforts to gather and consider comments in developing these new regulations, as well as its issuance of a Request for Quote to study the economic factors involved.

The rapid pace of solar development in Massachusetts reflects success in the SREC program to date, yet at the same time has come with unintended consequences. Thousands of acres of land have been converted from forests or open fields to industrial-scale ground-mounted solar facilities. Rare species habitats have been impacted and there have even been projects proposed in wetlands protected under the *Massachusetts Wetlands Protection Act*. As the cost of solar energy production equipment continues to drop, it is vitally important that SRECs for new projects going forward be directed away from environmentally sensitive sites. Instead, these

financial incentives should be targeted to sites such as rooftops, parking lot canopies, and brownfield redevelopment sites where the cost of solar construction is often higher than a rural, undeveloped site. Co-locating solar within developed areas also has energy systems benefits as the facilities are connected with local energy demand.

Forests, farmlands, rare species habitats, and wetlands provide important and valuable functions including carbon sequestration and resilience for people and wildlife in regards to the impacts of climate change. Renewable energy development goals must be harmonized with other important goals for protection of these resources.

Mass Audubon recommends that the new SREC program strictly limit eligibility for any projects impacting the following resources:

- Wetlands and 100-year floodplains
- Agricultural soils of prime or statewide importance
- BioMap2 Core Habitat, including forest blocks ≥ 500 acres
- Designated Priority Habitat of state-listed rare species protected under the Massachusetts Endangered Species Act
- Lands subject to Article 97 of the State Constitution, through conservation ownership or conservation restriction
- Archaeological sites listed in the State Register of Historic Places or Inventory of Historic and Archaeological Assets of the Commonwealth
- State-designated Areas of Critical Environmental Concern

In recommending these limitations, we acknowledge that a distinction should be made between small-scale projects that support an existing residence or farm and are ancillary to the continued existing use of the majority of the property, vs. larger commercial-, community-, or industrial-scale arrays that occupy large areas of land and provide energy primarily to off-site end users.

For smaller projects primarily serving existing property users, some de minimis impacts to resources could still be eligible, provided there is an alternatives analysis showing that no other design is feasible. For example, a farmer whose buildings are not appropriate for rooftop arrays might be eligible for solar incentives for construction of an array sized to primarily support the farm's energy demand, but in locating the array every effort should be made to avoid and minimize impacts to prime or important agricultural soils. Similarly, small amounts of impacts to other resources might be eligible for residential or farm-support scale arrays if the configuration of the property makes it infeasible otherwise and all necessary permits and approvals are obtained.

The idea of co-locating solar arrays on farmlands while maintaining those lands in active agricultural production has been proposed. At this time, it is unclear whether this can be accomplished in a manner that truly maintains the primary agricultural function of the land, and there are complicated administrative and oversight issues associated with such an approach. The Department of Agricultural Resources is presently accepting proposals under a grant program to

study the potential dual-use of agricultural fields for solar energy and crop production. Research on this topic is appropriate. We recommend that studies proceed and results be documented and evaluated before considering potential broad applicability across numerous farms statewide.

Grassland Birds, Landfills and Fields

Finally, we note specific concerns in regards to siting of solar arrays on landfills and fields.

Although landfills are a category of brownfield, many capped landfills provide important and increasingly scarce habitat for declining grassland breeding birds. We are concerned about the loss of grassland habitat resulting from large-scale solar array construction on several of the landfill sites listed in the Commonwealth's *Action Plan for the Conservation of State-listed Obligate Grassland Birds in Massachusetts*¹. At several of these sites, considerable funds and time were expended establishing or enhancing grassland bird habitat on the landfill. Subsequent conversion to solar arrays may result in the loss of that carefully created habitat. Many of these grassland landfill sites are Priority Habitat protected under the Massachusetts Endangered Species Act and have undergone review and permitting through the Natural Heritage and Endangered Species Program. In several cases the resulting permits have provided funding for restoration of grasslands elsewhere. Nonetheless, the prior restoration work is lost, and it is by no means certain that the birds displaced by the solar array will find other suitable habitat for breeding in the general vicinity.

Grassland birds will not use fields covered by solar arrays, regardless of the types of grass that planted under the panels. Site selection by these species (for example, Grasshopper Sparrows, Eastern Meadowlarks, Bobolinks) is influenced by the overall visual landscape². These birds require large expanses of grassland, and will not utilize smaller fields or road edges for breeding. Any visual obstructions – whether they be lines of trees, hedgerows, farm buildings, or solar panels – don't fit into these birds' image of appropriate habitat, and will cause the site to be abandoned.

Proposals to place solar panel arrays on fields that might otherwise be suitable for grassland birds is a recurring issue throughout the northeast. As noted above, we generally recommend that incentives for solar projects be targeted to co-location with existing development. If facilities must be built on the ground we encourage the use of alternative sites such as road edges that would not require destruction of grassland bird habitat. Locating solar panels in multiple small fields (for example, 10 fields of 5 acres each) would be less damaging to grassland birds than a single solar facility located in a large 50 acre field. In any case, Mass Audubon recommends that large scale arrays not be eligible for the new rounds of SRECs if located on landfills that are mapped as Priority Habitat, or on other fields that contain prime or important agricultural soils.

¹ <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/species-information-and-conservation/rare-birds/grassland-bird-conservation.html>

² <http://www.massaudubon.org/our-conservation-work/wildlife-research-conservation/grassland-bird-program>

Conclusion

The new program should strongly incentivize co-location of large commercial-, community-, or industrial-scale facilities on previously developed sites, and should exclude from eligibility projects that would result in more than de minimis impacts to any of the above-listed resources.

Thank you for considering these comments.

Sincerely,



John J. Clarke
Director of Public Policy & Government Relations

Mass Audubon works to protect the nature of Massachusetts for people and wildlife. Together with more than 100,000 members, we care for 35,000 acres of conservation land, provide school, camp, and other educational programs for 225,000 children and adults annually, and advocate for sound environmental policies at local, state, and federal levels. Founded in 1896 by two inspirational women who were committed to the protection of birds, Mass Audubon has grown to become a powerful force for conservation in New England. Today we are respected for our science, successful advocacy, and innovative approaches to connecting people and nature. Each year, our statewide network of wildlife sanctuaries welcomes nearly half a million visitors of all ages, abilities, and backgrounds and serves as the base for our work. To support these important efforts, call 800-AUDUBON (283-8266) or visit www.massaudubon.org.

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