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February 23, 2018

Judith Judson, Commissioner  
Michael Judge, Renewable Energy Division Director  
Massachusetts Department of Energy Resources  
100 Cambridge St., Suite 1020, Boston, MA 02114

Via Email: [DOER.SMART@state.ma.us](mailto:DOER.SMART@state.ma.us)

Re: **SMART Guideline Comments**

Dear Commissioner Judson and Mr. Judge:

Mass Audubon offers the following comments on the draft guidelines for implementing the Solar Massachusetts Renewable Target (SMART) Program pursuant to 225 CMR 20.00. These comments focus on the *Land Use and Siting Guideline*, *Definition of Agricultural Solar Tariff Generation Units Guideline*, and *Definition of Brownfield Guideline*. We recommend that further clarification be provided on defining subdivision of parcels in relation to total allowable project size and project segmentation; previously developed land; and natural resource values of undeveloped brownfield sites.

We also request that DOER carefully track the amount and types of land converted from undeveloped to large ground-mounted array uses. This tracking should quantify the entire area encompassed by these projects (e.g. area within a perimeter fence, new roads, utility corridors and ancillary facilities), and not just the area measured by the solar panels. While the latter is designated in the regulations for purposes of calculating the area of greenfield subtractors (225 CMR 20.07(4)(f)1. and 2.), the actual natural resource value impact is more accurately measured by the entire area encompassed by the entire facility and associated features.

Over the past two decades Mass Audubon has strongly supported solar energy as integral to meeting our state's clean energy goals and addressing global climate change. Unfortunately, in recent years we have increasingly seen acres of ecologically- and socially-valuable (but comparatively inexpensive) land converted to large ground-mounted solar arrays. Inappropriate siting of solar arrays conflicts with the Commonwealth's established goals, policies, and direct funding programs for natural and historic resource protection.

We appreciate the efforts of the Department of Energy Resources (DOER) to address these concerns through the stakeholder process that informed the development of the SMART regulations. The regulations contain provisions intended to prohibit allocation of incentives under the program to development of large ground-mounted solar arrays on land permanently protected under Article 97 of the State Constitution, and to limit incentives for development on "greenfield" sites such as forestland, while focusing incentives on building- and canopy-mounted arrays, brownfield sites, and related provisions. It is unclear how much the fractional percentages of cents applied through the subtractors will affect the overall financial investment status of greenfield development projects vs. building- or

canopy-mounted arrays. We continue to receive comments from municipal officials, citizens, and conservation groups in rural areas about large tracts of forest and farmland being developed for solar arrays, and concerns about the intersection of low-cost rural land with solar financing incentives. Analysis by DOER and the Executive Office of Energy and Environmental Affairs (EEA) of the costs of acquiring rural lands for conservation or agricultural preservation purposes, compared to costs to solar developers of greenfield vs. building-mounted solar, would be helpful as the Commonwealth continues to plan for the future of solar energy development. This would assist in harmonizing EEA's natural resource conservation goals with renewable energy development goals.

### Land Use and Siting Guideline

Agriculture Preservation Restrictions (APRs): The guideline appropriately notes that the SMART program does not supercede existing APRs. We recommend that this information also be included in the Agriculture Guideline.

Previously Developed: Ground-mounted projects between 500kw and 5,000 kW can qualify under the highest level of incentive, Category 1, if sited on land that has been previously developed. While the guideline attempts to clarify the term "previously developed" to some extent, this is still vague and subject to potentially quite variable interpretation. We recommend that DOER utilize the definition used by the Department of Environmental Protection in the Riverfront Area provisions of the Wetlands Protection regulations (310 CMR 10.58). Those regulations define previously developed as areas degraded by "impervious surfaces from existing structures or pavement, absence of topsoil, junkyards, or abandoned dumping grounds." This definition was developed with extensive input from a stakeholder group that included developers.

Single Parcels and Project Segmentation: The regulations and guidelines limit solar incentives on a single parcel or contiguous parcels to projects of total capacity of 5 MW, with some exceptions. The guideline explains these exceptions. Additional guidance is needed to clarify interpretation of 225 20.05(5)(a) and associated provisions in regards to excluding qualification for lands subdivided after January 1, 2010. We are aware of at least one instance where a solar project development has recently obtained an Approval Not Required (ANR) plan dividing a large (121 acre) parcel of land into several smaller parcels, with long strips 10' wide used to separate the otherwise contiguous parcels (see attached plans). It is our understanding that the landowner is proposing to develop several separate large ground-mounted solar arrays, each with its own separate management company. An ANR does not require approval under the Subdivision Control Act. Nonetheless, it creates legally separated parcels of land. DOER guidance should make it clear that this is considered a subdivision, and that such techniques are not allowed to be used to circumvent the intent of the regulations in regards to maximum project size and anti-segmentation.

Determination of Acreage of Land Occupied: The regulations at 225 CMR 20.07(4)(f)1. and 2. state that for purposes of calculating the subtractors, measurements of the area occupied by the actual solar panels shall be utilized. Although DOER is bound by the approved regulations in making those measurements for this purposes, it is important that DOER and EEA track the actual amount of undeveloped lands converted to solar array projects, including the spaces between the arrays, all land within perimeter fencing, areas where trees are cleared to provide solar access, new roads and utility rights of way, and ancillary facilities on site or directly required for the project (e.g. interconnect). All of these aspects of projects impact the land and its integrity for supporting ecosystem functions including habitat degradation and fragmentation. The state needs to develop a database of land conversion under the solar incentive program, in order to provide information that will fully inform how this program is interacting with other EEA goals and for future programmatic refinements.

### Definition of Agricultural Solar Tariff Generation Units Guideline

The regulations provide a new category of large ground-mounted solar arrays that are intended to be co-located on agricultural lands while enabling the land to continue in productive agricultural use. This is a worthy goal, although as the guideline notes, experimental. DOER should require, in addition to the pre-construction information listed, an ongoing system of reporting by owners of these facilities. This could include basic information on crops or livestock produced under the arrays on an annual basis vs. what was originally projected, as well as periodic (e.g. at 5 and 10 years) documentation of the condition of the agricultural land under the arrays. This information will be necessary to inform the state about the viability of this approach and any adjustments that may be necessary.

APRs: As noted above, this guideline should include or cross-reference the explanation about continuing applicability of –pre-existing APRs provided in the Land Use guidelines.

### Definition of Brownfield Guideline

Mass Audubon agrees in principle with development of solar arrays on sites that are appropriate for development but difficult or costly to develop for other purposes due to historic contamination on the site. Brownfields constitute a broad spectrum of lands and conditions, from highly impacted previous industrial sites lacking natural soils or vegetative cover to sites that superficially appear similar to greenfields, with abundant natural vegetative cover. The guideline requires:

*Evidence showing if the site is largely undeveloped, evidence as to why the most appropriate reuse of the site is not for it to remain undeveloped, given its natural resource values.*

Additional guidance is needed for clear and consistent interpretation of this provision. Additional specific factors that could be added include requirements to document the presence and locations of any Priority Habitat for rare species, wetlands, certified or potential vernal pools, and areas of natural vegetation with descriptions along with an analysis by an appropriately qualified person (e.g. individuals with biology, ecology, wildlife, natural resource management or related degrees and experience).

In conclusion, Mass Audubon thanks DOER for considering these comments in the context of promoting the rapid development of solar energy while harmonizing siting considerations with other important EEA goals for conservation of land and water resources. It is important that a database of land altered by these projects along with associated information be developed as the program proceeds, in order to inform future refinements.

Sincerely,



Karen Heymann  
Legislative Director

cc: Matthew Beaton, Secretary, EEA  
Kurt Gaertner, Director of Land Policy & Planning, EEA  
Bob O'Connor, Director Division of Conservation Services, EEA

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