

October 28, 2016

Commissioner Judith Judson
Massachusetts Department of Energy Resources
100 Cambridge St, Suite 1020
Boston, MA 02114

Re: Preliminary Comments on Successor Solar Incentive Program Straw Proposal

Dear Commissioner Judson:

Thank you for the opportunity to comment on the Department's straw proposal for a successor solar incentive program, as originally released and presented on September 23, 2016. Kleiman Energy & Environment ("KEE") and its solar development partners are appreciative of your work to ensure a smooth transition for the solar industry to a new policy and incentive framework, and we are grateful for the opportunity to provide comments on the proposed design of the new program. Below are KEE's comments at this stage of program development.

Land Use & Siting Items:

- **Land Use & Siting** - KEE has been an active participant on Working Group #4 (Land Use and Siting) and is working diligently with DOER staff and fellow Working Group members to craft a set of Performance Standards for siting solar projects on sites with Prime Farmland Soils and Prime 1 Forest Land. If the 1,600MW goal of the new program is to be achieved, half or more of that capacity will need to be built on the ground on non-landfill/brownfield sites, as the suitable building-mounted and landfill/brownfield sites were largely used up under the highly successful SREC I and II programs. The remaining land in industrial parks or commercially zoned areas is largely off-limits to solar development as it has a higher and better economic use for commercial/industrial development and therefore its owners are not interested in having their land used for solar. Many building rooftops and ground sites are simply not suitable for solar due to shading, wetlands, and other physical and environmental constraints. That leaves land that includes abandoned or active agricultural land and forestlands, some of which will need to be used for solar under the new program so that the goals can be achieved. If developed in a manner that is sensitive to the land and its available uses, solar should be generally allowed on farms and forested areas. It is worth noting that:
 - Massachusetts is the 3rd most populous state yet it is the 8th most densely forested.
 - If all 1,600 MW of proposed solar under the new program were built as ground-mount on forested land, only 0.5% of the Commonwealth's forest would be used, so even in this extreme example, the change to the Commonwealth's forested area would be minimal.
 - Of the 3,000,000 acres of forested land in MA, 2,200,000 acres is mapped as "Prime." According to Nathan L'Etoile, director of the Massachusetts Forest Alliance and former Assistant Secretary of Agriculture, the area mapped as "Prime Forest" was selected for its ability to produce harvestable timber, not for land protection purposes.
 - If any additional special consideration should be given under the solar incentive program to Prime Forest Land, it should only be for "Prime 1" Forest Land, which can be adequately protected via performance standards for Soil Protection such as those being discussed now by Working Group #4.
- **Prime Farmland Performance Standards** - PV solar projects should be generally allowed on mapped "Prime Farmland" so long as these projects are constructed, operated, and decommissioned in a manner consistent with reasonable Soil Protection, Minimum Agricultural Compatibility, and Minimum Agricultural Use Standards such as those being drafted by Working Group #4. Given that some solar sites

have small “fingers” of mapped Prime Farmland Soils or Prime 1 Forest Land on relatively small portions of potential solar sites, KEE recommends a threshold for requiring that performance standards be met on “Prime Farmland” where the Development Area includes >25% of the land area or 2 acres, whichever is greater, of “Prime Farmland,” and is not “Abandoned Agricultural or Forest Land” or “Non-Agricultural or Non-Forest Land.” Solar projects on “Prime Farmland” which incorporate “dual-use” agriculture with the solar project and meet the “Minimum Agricultural Use Standards” should receive an adder above the base incentive, given the added cost of incorporating such agricultural uses into the solar project and the provision of the added benefits of preserving land in agricultural use and making sure such land is available for agricultural use at the end of the solar project’s lifetime (i.e., banking the land for future agricultural use).

- **Prime Forest Land Performance Standards** – For the reasons stated above, solar projects should be generally allowed on mapped Prime Forest Land. KEE is willing to consider a requirement to meet a reasonable Soil Protection Standard for areas mapped as “Prime 1” Forest Land. Given that some solar sites have small “fingers” of mapped Prime 1 Forest Land on relatively small portions of potential solar sites, KEE recommends a threshold for requiring reasonable Soil Protection Standards on Prime 1 areas where the Development Area includes >25% of the land area or 5 acres, whichever is greater, of “Prime 1 Forest Land,” and is not “Abandoned Agricultural or Forest Land” or “Non-Agricultural or Non-Forest Land.”
- **Compliance Verification** – KEE supports an approach to compliance verification under which solar project developers attest to their commitment to comply with specified performance standards by affidavit submitted to the solar incentive Program Administrator.
- **Biomap2 Core Habitat** - Biomap2 “Core Habitat” and “Core Natural Landscapes” should not be given special consideration under the solar incentive program or be off limited to solar. Biomap2 Core Habitat is a guidance overlay for planners interested in acquiring and protecting open space. It has no regulatory force and was not intended to be a land use screen for landowners or regulators. Biomap2 “Core Habitat” and “Core Natural Landscapes” covers huge portions of the state and includes many commercial/industrial/institutional development areas such as industrial parks and large portion of the UMass-Amherst campus. KEE is willing to consider some special consideration for Biomap2 “Forest Core” and “Priority Natural Communities” which are more sensitive in terms of habitat value and cover much more limited areas.

Other items:

- **Non-Net Metered Projects** – KEE wholeheartedly supports DOER’s proposal to include Non-Net Metered projects (including so called Qualified Facilities) in the incentive program and applauds the proposed adder for such projects which by their nature are more expensive to develop and operate.
- **Defining Solar Canopy** - KEE wholeheartedly supports DOER’s proposal to include Solar Canopy projects (including so called Qualified Facilities) in the incentive program and applauds the proposed adder for such projects which by their nature are more expensive to develop and operate. KEE has been working with fellow members of Working Group #4 (Land Use and Siting), including Jesse Robertson-Dubois, director of the American Farmland Trust, and MDAR’s Gerry Palano on a definition of “Agricultural Solar Canopy” that incorporates the Soil Protection Standards and Minimum Agricultural Compatibility Standards proposed as part of the Performance Standards for siting solar projects on sites with Prime Farmland Soils and Prime 1 Forest Land. “Agricultural Solar Canopies” should be eligible for the proposed Solar Canopy adder. “Agricultural Solar Canopies” meeting the performance standards should be allowed on farmland or forest land even if those areas are not mapped as “Prime.”
- **Block Management** - KEE is supportive of NECEC’s proposal for adjusting the capacity-based block structure described in the Department’s straw proposal to provide additional room in the first two blocks. Given the expected gap between incentive programs for solar projects greater than 25kW, KEE shares NECEC’s concern that pent up demand for incentives will yield a significant number of applications upon the start of the program and quickly fill up the first two blocks. Instead, larger initial blocks of 400 MW each would allow for a more orderly transition to the new program. Later blocks could be reduced to 200

MW of capacity, though this capacity should be maintained as a minimum to ensure that all project sizes have an opportunity to participate for the duration of the successor program.

- **Declining Block Rate** - KEE joins other industry voices in asserting that the proposed 5% decline is too steep and not appropriately supported by industry cost reduction expectations. Instead, please consider reducing the percentage step-down in incentive levels between blocks from 5% to 2.5% to provide a more moderate glide path in greater alignment with the current pace of cost reductions in the industry. KEE also opposes further subdividing the blocks. The incentive levels should be calibrated to allow all projects to move forward, and blocks should be made large enough to avoid possibility of any one category overwhelming the others.
- **Tariff Length** - In order to better align with the operational life of a solar system, be compatible with third party ownership financing models, and to reduce risk and uncertainty related to the tariffs that may be available decades down the road, KEE would like to see longer 20-year tariff options available for projects >25kW.
- **Add Statutory/Regulatory Certainty** – Rhode Island has one of the few tariff-based solar incentive programs (REG). Part of the reason the REG program is considered “financeable” by solar financiers is the “permanence” provision in the statute that created the REG program (see statutory language below). As the DOER is proposing to administer the new program by regulation rather than law, DOER should incorporate protective provisions assuring the permanence of the incentive term and rate into the forthcoming regulations and perhaps work with the Legislature to add statutory protection similar to that of the REG program. This would ensure sufficient protection for solar developers and their finance partners regarding change-of-regulation.

“TITLE 39 Public Utilities and Carriers CHAPTER 39-26.6 The Renewable Energy Growth Program
SECTION 39-26.6-6, 39-26.6-6 **Permanence of tariff terms once set.** – It is the intention of the general assembly in enacting this chapter that the developers, owners, investors, customers, and lenders of the distributed-generation projects receiving performance-based incentives under the tariffs be able to rely on the tariffs for the entire term of the applicable tariff for purposes of obtaining financing. Consistent with that intention and expectation, the terms under the tariffs for a given program year, once approved by the commission, shall not be altered in any way that would undermine such reliance on those tariffs during the applicable terms of the tariffs; and in no circumstance will the performance-based incentive rate paid to a renewable energy project developer or owner be reduced during the term of the tariff once a renewable energy project has qualified to receive a tariff under the terms of this chapter.”

Thank you for the opportunity to comment on this important proposal. KEE looks forward to continued participation in the regulation development process.

Best regards,



Richard Kleiman
President