



July 11, 2017

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

Re: Comment Letter SMART Program

Dear Commissioner Judson:

We appreciate the fact that DOER has made the effort to engage stakeholders in the development of the SMART program. The SMART program will be a model program providing jobs and solar development opportunities for three to four years if you get the program and the compensation numbers right.

Pope Energy is a commercial and utility scale solar developer focused primarily on ground mount solar PV projects.

Land Use:

20.02 Canopy Solar Tariff Generation Unit:

Allowed: parking surface, pedestrian walkway or canal.

DOER should be encouraging dual use of land. If a developer has a 5 MW project consuming 20-30 acres of land, the developer should be encouraged to install a solar canopy and search for a secondary use of the land teaming with farmers to farm the land or develop other horticultural uses for the land, such as growing flowers or establishing vineyards.

Add under allowed uses: Solar canopies shall be allowed if the land under the array is returned to pasturelands, horticultural lands OR arable land capable of maintaining temporary agricultural crops, temporary meadows, or land under market or kitchen gardens. System size shall not exceed 5 MW per parcel.

20.06 (d) 4. Special Provisions for Agricultural Solar Tariff Generation Units.

Existing: 4. the Solar Tariff Generation Unit's AC rated capacity is no greater than one (1) MW ;

Massachusetts's farmers struggle competing with larger scale farms outside of New England. Please do not add yet another restriction on the success of Massachusetts farmers. Our direct experience with farmers is that they are using solar to assist in adding revenue to stay in the farming business.

Changes to 20.06 (d) 4. : Allow Agricultural Solar Tariff Generation Units to have a system size of 5 MW per parcel.

20.02 Greenfield Subtractor.

Add: Exception. Any parcel of land or portion thereof that would otherwise qualify for a Greenfield Subtractor pursuant to 225 CMR 20.07 (4) (f) will not be subject to such Subtractor if such parcel of land is returned to pasturelands, horticultural lands, or arable land capable of maintaining temporary agricultural crops, temporary meadows, or land under market or kitchen gardens.

20.05 (5)(e)(1)(b) Land Use and Siting Criteria.

(b) Category 1 Non-Agricultural:

Add: v. Previously developed gravel pits or quarries and blow-down areas directly damaged by tornado's.

2. Category 2 Land Use.

Existing text: b. is zoned for commercial or industrial use, shall be designated as Category 2 Land Use.

Add: is zoned for commercial, industrial, or solar overlay use, shall be designated as Category 2 Land Use.

Many municipalities may desire to have solar PV developed on a property but do not desire to extend commercial or industrial uses that that particular parcel of land or area of the city or town.

5. (f) Performance Standards:

(f) Project Segmentation. This section deals with adjacent parcels of land not being able to be developed until one parcel is first commercially operational.

This section creates great difficulty due to the fact that DOER does not have the cost and compensation of utility interconnection right within the program. One reason for developing adjacent parcels is to mitigate the high cost of interconnection for larger systems.

If the SMART program is promulgated in June of 2018, the segmentation rule will make the development of adjacent parcels potentially cross ITC periods moving into 2020, adding cost, risk and complicating financing. As currently written, the federal ITC remains 30% until 2020 whereupon it drops to 26%.

The adjacent parcel rule is a form of growth management, preventing depletion of the 1,600 MW too early, which speaks to a larger issue as why in light of the Grid Modernization process at DPU, the IMAP process at ISO-NE, satisfying Kain vs. DEP, meeting the goals of the Global Warming Solutions Act, is the SMART program not having a longer program length and meeting a percentage of Massachusetts

consumption by 2030? The SMART program might last four-years with most companies thinking two-years with a wait and see position before the declining block makes projects uneconomic. Two years is an opportunity, but not something to build a company around.

Yesterday, a survey company called me representing the MassCEC. Their survey was all about energy jobs created in Massachusetts. As a principal of a firm that has employed many since 1978, it is difficult to make that representation to prospective employees that “if you do a good job there will be a place in this company for you” based upon a two-year time program length.

Utility Interconnection Fees:

While DOER may not have direct responsibility for interconnection cost issues directly, the department should be elevating the policy debate and establishing the policy direction as the SMART program is handed off to DPU.

Consideration of a larger solar program and greater distributed energy contribution to Massachusetts’s energy total consumption would most likely yield a determination that there are system benefits to increasing levels of distributed generation. The postponement of the Spectra Access pipeline and the delay of Northern Pass should spurn these discussions of a greater solar and DG program. Within this framework, interconnection cost could be defined per kW and a balance of the cost could be moved into a Grid Modernization framework rather than being bourn by a single solar or DG project.

15. (5) Adder Caps. Adder capped at 320 MW across all Distribution Companies.

If you look at the adder categories, they all require additional cost, labor, material or marketing and customer acquisition in the instance of community solar. There are no economic indicators that these non-technology labor and / or material cost are going to go down. Are the Community Solar companies going to layoff their employees after the 320 MW cap is hit? Are the cost of traditional welding methods and cost of steel in solar canopies going to come down? No. The base rates will not accommodate these costs now and there is nothing in the market that would indicate a decrease in traditional labor and material cost.

I disagree with others to reduce the value of the adder caps. That is a political accommodation not based in economic conditions on the ground. Labor, customer acquisition cost and material are not going to go down over time. Inflation, year over year will make up for any efficiencies derived from greater volume.

If per customer acquisition cost do go down it will be because of investment in technology, which will concentrate community solar aggregation to only a very few firms which may not be reflected in cost reductions in developer originated projects.

Please retain the value on adders and remove the proposed caps over 320 MW on adders. The adders should be uncapped through the entire SMART program.

15.(6) Miscellaneous

(6) Review of Compensation Rates: Every 400 MW

Needs to be every 6-months.

The SMART program needs to have a provision for periodic review every six-months, to review cost due to global conditions, federal regulations and tax codes, interest rates, and rising interconnection cost. Projects having received Solar Program Administrator approval would have those tariff conditions grandfathered.

The Suniva's bankruptcy and subsequent filing 201 filing with the US International Trade Commission concurrent with a global solar panel glut followed by large Chinese and Asia RFP's, has created great uncertainty at this writing about the cost of solar panels as manufacturers cut production and seek markets of greater value than the USA. A floor price of solar panels could be established at a floor price of \$0.78 per watt having a huge effect on the SMART program that has anticipated year over year price declines.

Review provisions should allow DOER to make changes to the size of the program without having to re-promulgate the regulations.

Soon the legislature and Baker Administration will be considering the impact of moving to raise the RPS requirement to 3% per year. Combined with the Spectra indefinite postponement of Access Northeast pipeline, a larger solar program should be developed.

6-Month Review – Benchmarking Against Known Cost:

Solar Panels:	Tier 1 solar panels pricing is easily obtainable, transparent and global forces on availability and pricing are well publicized.
Electrical Labor:	The Mass. Department of Labor and Workforce Development maintains regular Prevailing Wage schedules that are capable of being used as a labor benchmark in the absence of market surveys.
Interconnection Cost:	Cost paid for utility Impact Studies and Interconnection Cost are capable of being made transparent for assessment purposes.
Adder Cost Review:	Evaluating the effect of inflation CPI–Boston, steel cost, labor, companies servicing community and low-income solar and effect on jobs.
Regulatory Review:	Effect of interest cost, tax policy, property / equipment taxes

Getting the Pricing Compensation Right:

We just made a proposal to a farmer who is getting older and wants to install solar to help maintain his ownership of the farm. Revenue for a 500 kW system equals the base

rate of $\$0.15 \times 125\% + \0.06 for an agricultural canopy totaling \$0.24750, interconnection cost \$59,000, yielding an IRR of 8%. The farmer is not going to build the project under the SMART program because why should he sign personally on a \$1.6 MM loan that only yields a 20-year average net revenue of \$17,000 per year? We could not offer community solar because we do not understand how revenue will be derived and what will be the cost of participating in community solar. This gets back to the fact that the base rate is not right. For smaller ground mount solar projects under 2 MW, the SMART program is going to need IRR's of closer to 12% to attract investment.

Fourteen cent (\$0.14 per watt) will work on larger projects only if the interconnection cost are not too high (\$0.11 per watt), entitlement conditions are not excessive and the Subcontractors are removed if the land is returned to pasture, horticultural, or arable land.

Remove the Block Capacity Allotments for Unitil Service Territory.

Unitil is currently over subscribed at this writing. A 5 MW project precedes one of our 3 MW projects with others waiting with complete applications but no fees yet paid. The municipalities of Fitchburg, Ashby, Lunenburg and Townsend will be shut out of the SMART program before it is promulgated by DOER. Just because the landmass of these towns is less populated than other utility service territories does not mean the taxpayers, landowners, business owners and municipal governments should not share in the SMART energy economy.

While we understand the methodology used to apportion block capacity allotments, in the Unitil territory, such methodology unfairly penalizes a less affluent, less populated area simply because it is serviced by a smaller utility company.

Restraints on program size again bring to the forefront the issue surrounding sizing the solar program on a percentage of Massachusetts electricity consumption by 2030. Such as policy would open up a clearer path for jobs, career choices, utility Grid Modernization planning, IMAP capacity modeling with ISO-NE and opportunities for municipalities to participate.

20.09 Solar Program Administrator.

It has been reported that DOER is considering pushing the administration to the utilities. Program administration is a policy management function not a strict tariff responsibility. Appealing decisions of a third party administrator to DOER will be easier than appealing decisions through the utilities. Please maintain the third party administrator role as the MassACA process has worked well and gives confidence to financing entities that there exists an independent structure managing policy compliance.

20.08 Calculation of Incentive Payments for Solar Tariff Generation Units.

2. Alternative On-Bill Credit Generation Unit.

If the On-Bill Credit Generation is handled much like the utility on-bill invoicing of a competitive supply line item on a customers bill we understand that portion; we assume the payment of that line item to the competitive supplier is handled like any accounts payable to be paid in thirty days. Is our assumption correct? What are the mechanics of



this system with community and low-income solar customers? Is it simply filing a SMART Schedule Z? What does the enrollment process look like and what is the handoff interface with utility?

Crossing ISO Zones Within A Holding Company.

Taxpayers in Boston and the urban core surrounding Boston should have equal access to solar generation. There is not enough suitable landmass within Boston and the surrounding Rte. 128 belt that is capable of servicing this electrical consumption load.

Eversource customers in Boston should have access to solar generation located in WMECO territory in western Massachusetts. While there may be barriers in pricing, these should be overcome within the Grid Mod, utility tariff, and SMART proceedings.

We appreciate the ability to make comment on this important solar program.

Best Regards,

A handwritten signature in black ink, appearing to read "Doug Pope", with a stylized flourish at the end.

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