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Christopher Derby Kilfoyle,

President

October 27, 2016

Michael Judge

Director, Renewable and Alternative Energy Development
Massachusetts Department of Energy Resources
100 Cambridge Street, Suite 1020, Boston, MA 02114

Re: Comments on the Next Generation Solar Incentive *Straw Proposal*

Dear Mr. Judge,

Thank you for the opportunity to submit these comments on the Next Generation Solar Incentive *Straw Proposal* as presented on September 23, 2016 in Boston. BPVS, Berkshire Photovoltaic Services Inc. has installed solar electric systems in the Commonwealth since 1985. During the last fourteen years BPVS has helped ratepayers adapt to multiple solar incentive program iterations. We share the DOER objectives to ensure "robust growth" and "widespread access" to the solar market.

BPVS also shares the broad concerns on the *Straw Proposal* expressed by solar stakeholder groups particularly on the transition, the land use issues and any delay of a new incentive program. Continuing the SRECs II or a comparable SRECs III program is suggested. Any delay must be accompanied by DOER providing frequent consumer guidance on policy considerations, eligibility timing and a program start date. This public education is in essence consumer protection and should have already started.

The Next Generation Solar Incentive *Straw Proposal* re-iterates the DOER choice for a declining block incentive (DBI) model administered as a tariff. The legislation while citing this model and a tariff also allowed for development of "other declining incentive framework(s)". We'll address what those could be in our concluding remarks.

The declining block incentive administered as a tariff has serious flaws: built in volatility, administrative complexity with a lack of checks and balances, and, as a tariff, inherent structural delays adapting to market and technical changes. These problems have been identified since 2013 when DOER with a small, self selected, *ad hoc* group of utility and solar stakeholders first proposed the model that wound up in the 'net metering crisis', failed compromise bill of late June 2014. As expressed by the DOER presentation on September 23, 2016 this model posits "greater synergies between incentive and net metering programs" and " predictable incentive levels " but functionally for PV system capacities in all classifications, 'synergy' really means centralized control of solar development by the utilities. The volatility of incentive levels rather than their predictability means a rush for an early position prior to block saturation. That will hurt the small system market even if DOER safeguards a percentage retention for the <25kW category. For all categories, transition from block to block will never occur optimally with

the annual planning and installation seasons thus increasing transaction costs to re-calculate production benefits, financing and procurement costs for every prospect. In short this model guarantees bust and boom cycles- delays while DOER and DPU make program adjustments to remedy a bust and a rush to take first advantage of a short boom. Rather than promote robust growth and consistent employment, this model will exhibit what the DOER consultant identifies: "a DBI program (in practice) would have more rapid, slower or more volatile growth than a CB/SO or SREC-III program".[1] The consultant, Sustainable Energy Advantage, LLC omits the gravest consequence of the utility managed, DBI model for all categories, consumer/investor and off-taker mistrust in policy consistency and program management.

The administrative costs of a DBI program were considered in the comparisons of incentive programs calculated in various studies by Sustainable Energy Advantage, LLC. The DBI program is much more expensive than an SRECS III model. To their credit, Sustainable Energy Advantage, LLC notes these costs are incurred both by the solar developer/consumer and the utility. Their estimates based on surveys are accurate for programs to date but none of their reports anticipate the particular bookkeeping costs of the 'incentive net of net metering' calculation, the net metering value *haircut* of 40% or the new wrinkles this model presents for net metering recovery surcharge calculations[2]. In practice this additional complexity is bound to introduce errors and increase transaction costs. Investors look at potential, cascading risks and many will walk once this model is fully understood.

This risk is further compounded by delays and the tariff structure itself. Changes can only be made during tariff proceeding or the legislative cycles. Neither offer opportunities for quick relief. Resources of solar and environmental stakeholders are bound up fighting utility lawyers on one front and their lobbyists on the other. The utility tariff model means all key metrics flow bottom up to the utility for their sole collation; all accounting and payments to the solar owner are meted out by their utility. That's too one sided. One administrative cost to consider will be increased DPU staff dedicated to providing ombudsperson services for exasperated solar owners and hosts with billing errors and/or utter confusion on bill credit calculations.

There are two other problems with the *Straw Proposal* to address in these brief comments. One, the dilemma of developing a statewide incentive program to include Municipal Light Plants (MLP's) is noted in the DOER slide presentation. The other not noted is ownership of attributes.

Many BPVS customers *self- retire*[3] their solar electricity production "attributes". We understand other firms also have solar owner clients making this moral choice. They refuse to sell RECs or SRECs or SRECs II because the concept of separated attributes is paradoxical and absurd in terms of authentic environmental action. While it is a personal choice or a 'green' branding decision to not participate in the only production incentive offered in Massachusetts, it has been an option. It is not clear that choice could continue under a tariff based program. Will the synergy of incentive *qua* net metering value mean customers will be denied net metering if they want to self-retire the attributes? Or will they receive the full net metering value associated with their facility type and capacity? What about those who might

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[1] .Developing a Post-1600 MW Solar Incentive Program: Evaluating Needed Incentive Levels And Potential Policy Alternatives . Sustainable Energy Advantage,LLC. October 11,2016 (page 50)

[2] The two major utilities use separate cost recovery methods to calculate and charge for displaced distribution costs and *delivery* revenue. The former should be reduced by 40% and the latter disallowed.

[3] Or *refuse to agree that attributes can be separated*. A certification fee has to be paid to officially retire the attributes.

wish to sell their clean energy attributes only for a couple of years or as a 'green tag' in some venue other than the MA RPS compliance market? How would a ten, fifteen, or twenty, year contract with the utility handle these accounts? Isn't it rational, given the regulatory "non-energy" definition of attributes, that RPS eligibility is one attribute of many and maybe the many others are more valuable?

This is why a value of solar calculation is essential to a workable program of any sort. This DBI tariff model is seen as disenfranchising Municipal Light Plant customers by confining their solar incentive to only the Class I RPS RECs value, that should be a reality check to those who let the SRECs I and SRECs II programs disenfranchise pre -2010 PV system owners. A statewide production based incentive program should only discriminate against SRECs I and SRECs II accounts and thus allow new solar owners as well as the early adopters, access to a reasonable incentive based on real solar value. The latter are now facing maintenance and inverter replacement costs and have been denied equitable treatment since 2010. The very real legislative possibility, the environmental healing necessity, of doubling the RPS (or its equal) in Massachusetts is an opportunity to make this a statewide mandate for all electricity suppliers and distributors.

Rather than divide solar development incentive management among the investor owned utilities, now is the time to institute a statewide public *Solar Utility* or *Solar Bank or Solar Exchange*. There is no need to separate electrons and attributes when the solar resource is an aggregated public entity with monopoly standing. Rather than allow the value of a solar kWh fluctuate within periodic rate setting tariffs and between utilities, let a consensus value emerge from transparent calculation. The avoided costs of ratepayers not footing the bill for complex DPU proceedings to fight solar may hit just the right balance to make the solar portion of RPS compliance, a real bargain. The administrative costs of a sharing resource, managed through a transparent digital model[4] make the "virtual," *Solar Utility* or *Solar Bank or Solar Exchange* quite doable and feasible. Do the right thing for a full transition to renewables, the incentive declines will follow. The recent NH, CT, RI, and MA decision to plan on renewables rather than gas pipelines, the storage innovations that are market ready or very near so, should give legislators courage to make this profound change in how we value our in state solar energy resource and serve future generations responsibly.

While naysayers come around to understanding that this model is not some idealistic dream but a practical structure indicative of new economy solutions[5], the continuance of the SREC II program is suggested to DOER. There really is no rush to transition to a new incentive program. Neither the utility stockholders nor ratepayers are bearing a huge cost for solar accommodations to the grid to date. SRECs II or III could be modified by factors for new entrants , it should re-enfranchise the pre 2010 solar producers and certainly raise the net metering cap while a permanent plan for solar is established. Thank you for considering these comments reflecting our customers and staff concerns for solar policy development.

For BPVS,

Christopher Derby Kilfoyle

[4] Called "infraethical metadata management" in some circles.

[5] a Public, Solar ' Virtual Utility or Exchange' (call it what you want) active in the electricity sector would accelerate a smarter grid.