

Thank you for the opportunity to comment on the 3 year plan which includes discussion of the Online Solar Marketplace and the Connected Solutions program for Solar + Storage and Storage alone as well as the Connected Solutions program announced by National Grid for control of SolarEdge inverters in association with SolarEdge and Energy Hub as co- Program Sponsors.

BPVS of which I am the President and founder has been providing energy efficiency and solar electric design and installation services since 1985. In fact in 1987 and 1988 my firm helped initiate instrumented energy conservation in the state and the use of Blower Door testing in diagnosis and quantifying air leakage by providing contracted services to the Northampton MA Pilot program sponsored by National Grid, then Massachusetts Electric. BPVS also provided design and installation services for the PV pilot programs sponsored by the states major utilities from 1997 through 2002. There were only a handful of firms capable of providing these services in the Northeast at those times. All these programs were successful and in policy discussions, BPVS encouraged, accelerated contractor training and establishment of technician licensing for these nascent trades, development of local contractors to provide these services and utility, territory-wide program implementation. We should also note that our experience in solar and storage designs for off- grid and dedicated load systems and hybrid systems- meaning Solar and storage systems that interconnect to the grid is measured in decades. In western Massachusetts and beyond our reputation for providing objective information on these technologies and advocating for ethical representation of energy capabilities, environmental and financial benefits, is unmatched. Please visit our educational pages at [www.bpvs.com/solar](http://www.bpvs.com/solar)

Both Eversource and National Grid feature an Online Solar marketplace which is really a link to the EnergySage website. It does not have to be EnergySage and could be other entities providing an ostensibly objective "click easy" market service. My firm does not participate in the lead generation, "pay to play" solar installer quote and rating features of EnergySage because it is not objective and deludes consumers into thinking that proper design can be completed solely online. It may be driving a race to the bottom on price offered to consumers by firms which do participate. Councilors would do well to review the history of EnergySage ratings for installation firms now out of business who have left their customers stranded for maintenance and warranty services. It seems that equipment brands are also paying for placement and good or great reviews of their products on EnergySage. These reviews are consistently gauzy and rarely compare products on essential physical and scientific characteristics and never from an environmental justice and labor relations perspective. The pseudo scientific and the "infomercial" style of this and other solar portals aimed at consumers is not something ratepayer system benefit charges should be spent on by utilities. The EEAC should carefully examine or ask the AG's office and the Office of Consumer Affairs and Business Regulation to examine the financial bonds beneath the surface of and the factual integrity of the Online Solar Marketplace.

Nothing could exemplify the error and omissions of the present policy than the Connected Solutions Solar & Storage or simple Storage programs replete with access to the Heat Loan program and a very limited selection of devices eligible for the incentive(s). It is shameful that Massachusetts policy and the players in this particular program are exclusively offering Lithium Ion (LI) battery storage - many of the products also include cobalt. Resource extraction for these products is causing forced migration, child labor and environmental degradation. The argument that cell phones and other uses of LI are equally guilty of censure does not exonerate the utilities. My firms' comments on the SMART program development and the SMART program review go into great detail on this environmental injustice issue.

There are other points that should also concern councilors. The Terms and Conditions language (only Sonnen and Solaredge present these on their websites for Connected Solutions) is a boiler plate contract from another party Energy Hub of Brooklyn NY. It is written as a wraparound consent form leaving all program sponsors including the utility free of any blame for multiple problems that could occur and offers the consumer no guarantee or warranty of the products suitability, no assurance of a minimum amount the suggested incentive will pay, no recourse to sue and particularly forbids a class action lawsuit. Please read the General Conditions section in these non-paginated documents. One does not have to be a lawyer to see that a consumer "electronically signing" this agreement is giving the Program free rein to misrepresent Program offers and benefits and no recourse to seek damages. These are elements of contracts our consumer protection laws are meant to prevent and address in detail.

There is no mention of how a consumer or the Program will recycle the LI battery pack at the end of its life. That some of these products need active cooling of the battery pack is not detailed ; one presentation pictures the LI battery pack in a living space which is not appropriate for a hazardous device. The efficacy of the limited storage capacity of these devices needs to be carefully explained to consumers. Some homes will blow through their back-up capacity in a couple of hours. The command and control operation of these devices for charging and discharging through the internet is not foolproof and certainly dangerous if hacked. There are other much more responsible ways to absorb DG and these should be located at sub-stations. Again the financial and profitable interests in the program are not explained to the consumer and even perhaps to the EEAC. Are residential customer participants unwitting enablers of Forward Capacity Payments to the program sponsors?

National Grid and SolarEdge are also now offering in Massachusetts a program to allow control of grid interaction , power quality parameters to solar owners. The EEAC and others must quickly stop this program until its efficacy and its dangers can be thoroughly vetted by all industry experts including design installation firms like mine who are often called by customers and consumers on issues with their inverters.

Please feel free to contact with any questions on these issues and on alternative programs, system benefit charges can fund with integrity.

Sincerely,

Christopher Derby Kilfoyle.

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Christopher Derby Kilfoyle, President  
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