



Department of Energy Resources
Commonwealth of Massachusetts
100 Cambridge Street
Boston MA 02114

September 27, 2019

SMART COMMENTS FROM ECA SOLAR

ECA Solar LLC (“Commenter”), move today for the Massachusetts Department of Energy Resources (“DOER”) to reconsider the following proposals outlined in 225 CMR 20.07(5) (“400 MW Review Straw Proposal”):

- Building Mounted Generator Unit’s Adder has been proven to be insufficient and not effective. Commenter suggests raising the Adder to \$0.04/kWh from \$0.02/kWh to encourage Solar PV Development on top of existing structures, and where the EDCs highest load concentration. Ground mount production ratios are typically 10-15% higher than rooftop. Most rooftop modules are at tilted at a *maximum* of 10 degrees, whereas ground mounts are titled south at least double this amount. Rooftop and carport simply does not provide as much power compared to ground mounts. When the SMART Program was designed and the Adders were calculated, Commenter feels that the additional costs associated with National Electric Code 2017, that are unique to Building Mounted Generation, were not considered. By the time the SMART program was released, there was one month to permit sites in the predecessor Electric Code to NEC 2017. Module Level Electronics required for Module Level Shutdown are expensive costs that ground mount systems are exempt from. The new tariffs imposed on the Federal level have only compounded this issue. Coupled with increased snow loads and other MA Building Code requirements involving roofing, the costs of installing Building Mounted Generating Units has increased significantly, while the cost of installing Ground Mounted Generating Units has decreased or remained the same. Meanwhile, the adder for Building Mounted Generating Units has decreased. Rooftop incentives were the 2nd highest possible rate under SREC II (Market Segment B), under the SMART program they are at the bottom.

As a result, Ground Mounted Generating Units have made up the vast majority of SMART Awards. As of August 19, 2019 there has been 713,719 kW of Ground Mounted Generating Units not sited on a Landfill or Brownfield, compared to 98,546 kW of Building Mounted Generating Units. Raising the Adder for Building Mounted Generating Units to \$0.04/kWh would curb these issues and guide Solar PV



Development onto existing rooftops within Commercial and Industrial Districts where significant EDC load already exists.

- For Ground Mounted Generating Units over 2.5 Megawatts, there should be a required reservation fee / security deposit of \$10,000 per Megawatt. Should these large projects fail to get completed those reservation fees could be used to fund the SMART program and low-income adders. Giving away the overwhelming majority of the SMART program without any deposit or security has led to speculation. It has also led to a burden forest/agriculture lands and small understaffed communities in Central and Western Massachusetts.
- Commenter believes a carve out should be in place for commercial Building Mounted Generating Units and Canopy Mounted Generating Units that are 500kw and smaller. This policy would be consistent and similar to the carve-out for Residential Generating Units. This structural change would allow the SMART program to be more diverse and stable; avoid the saturation of large-scale Ground Mounted Generating Units.
- Commenter has found that the above statements related to Building Mounted Generating Units can be applicable to Canopy Mounted Generating Units. As of August 19, 2019 there were 38,462 kW of Canopy Mounted Generating Units Qualified under SMART, compared to 713,719 kW of Ground Mounted Generating Units (no Brownfield or Landfill Projects are included in this number). Despite there being plentiful parking lots available in Massachusetts, this use group has been underutilized by a significant margin. Costs of Steel have risen dramatically under the new Federal Tariffs, and the true costs of building a Canopy Mounted Generating Unit were not accurately considered when developing the Adder. Of course, ground mounted systems tilted south at 20 degrees and up produce far more output than Canopy Mounted generation on a module per module basis. Commenter suggests the the Canopy Adder be raised to \$0.08/kWh to encourage responsible Solar PV development in Commercial/Industrial Zones near EDC customer loads.
- Under the DOER 400 MW Straw Proposal, on Page 9 of 36, DOER proposed increasing the Greenfield Subtractor to a half penny. Commenter feels strongly that this is not enough of a Subtractor, and recommends increasing the subtractor to \$0.01/kWh for Category 2 and \$0.02/kWh for Category 3. The increased subtractors, given the overwhelming number of Ground Mounted Applicants, aim to offset the proposed increased Adders Commenter suggests for Building Mounted and Canopy Mounted Generating Units. DOER has the ability to shift the development strategies and implementation of responsible Solar Policies in Massachusetts through this review, and



drastically reducing the number of Ground Mounted Generating Units in Category 2 and 3 would which dominate the SMART program. This will help increase the number of other Generating Units such as Landfill, Brownfield, Canopy, and Building Mounted and reduce the burden on small town agricultural and forest land throughout Central and Western Massachusetts.

- On page 24 of 36 of the MA DOER 400 MW Review Straw Proposal, DOER suggests implementing a “New Preferred Interconnection Adder/Subtractor”. The Heat Maps provided by the EDCs are long overdue. The Commenter is skeptical these Heat Maps will be available by the time of the Emergency Regulations. Commenter feels these Heat Maps areas must be approved by DOER and with oversight by the DPU. Otherwise this adder/subtractor gives too much power to the EDCs, and without proper oversight can be abused by EDCs. The EDCs could unilaterally shut down the solar industry without this oversight. The basis for the Adder/Subtractor should factor in ISO-NE Transmission constraints in particular. Overall, Commenter feels that this is a great idea in concept, but may present considerable challenges to DOER to protect the clean energy participants.
- The “New Pollinator Adder” as outlined in page 28 of 36 should not be an adder, it should be a requirement for all Category 2 and Category 3 Project Types. In effect, with the adder as proposed we are rewarding Solar Developers for cutting trees down, when in reality DOER has the ability to make Best Practice a requirement. The costs associated with using local Pollinator’s as described in Page 28 of 36 is de minimis.
- The >500kW Battery Storage Mandate as proposed should be revised to affect projects that do not yet have an Interconnection Services Agreement (“ISA”) as of the date of the Emergency Regulations; targeted for November 2019. If the Utility has already awarded an Interconnection Agreement and deemed the system safe and reliable for the grid it should not be punished by DOER. One may think adding battery storage to an Interconnection Application expedites the Interconnection Approval; unfortunately the opposite is true. In the Commenter’s experience, adding AC Coupled batteries to a Solar Generating Unit after the Interconnection Agreement is deemed a material change that triggers a new Impact Study requirement and terminates the Interconnection Agreement. This forces the Applicant to start all over again. There should not be new costs and significant time delays for projects which the EDC have already approved. For DC-Coupled Battery Systems, adding batteries typically requires an Inverter change which will trigger the need for a new Impact Study in most cases.
- Commenter believes the main structural issue with the SMART program is the ability to evaluate success and failure. As it stands, the SMART program has awarded over 1,000



Megawatts with Preliminary Statements of Qualification however under 100 Megawatts have been done. The success or failure of the SMART program should be measured by what clean energy systems get done. If a significant percentage of SMART projects fail there should be a mechanism to true-up or re-evaluate. The easiest way to safeguard against this structural problem is a) require security deposits for large Ground Mount Generating Units over 2.5 Megawatts and b) restate or amend the declining block rates from 4% to 2%.

Commenter thanks the Massachusetts DOER for this opportunity to comment on the MA SMART 400 MW Review Straw Proposal. The data shared by DOER suggests that there has been great success shared by Ground Mounted Generating Units in the State of Massachusetts thus far. We are now presented with an opportunity to make sure that same success is shared by Generating Units that do not require the use of Greenfield Land or put Generating Units away from EDC Customer Load Areas.

regards,

Todd E. Fryatt

President

ECA SOLAR LLC

