

# Low-Income Solar Hosting under SMART

July 11, 2017

Judith Judson, Commissioner  
Massachusetts Department of Energy Resources  
100 Cambridge Street 10th Floor, Boston, MA 02116

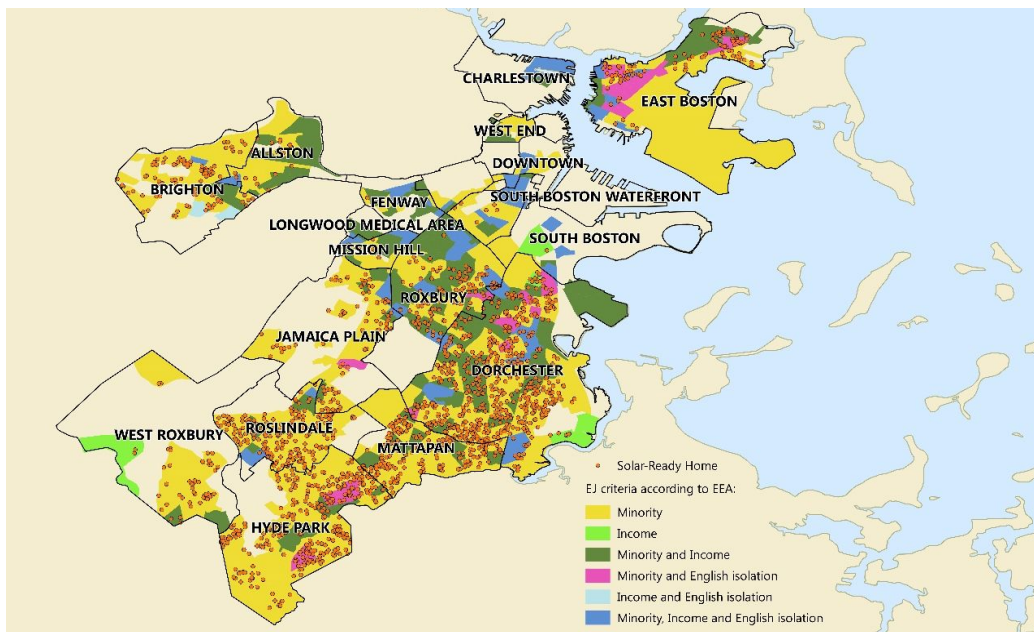
cc: Michael Judge, Director, Renewable and Alternative Energy Division  
Massachusetts Department of Energy Resources  
100 Cambridge Street 10th Floor, Boston, MA 02116

RE: SMART Program and Guideline Regarding Low Income Generation Units (225 CMR 20.00)

Dear Commissioner Judson:

Current solar policy in Massachusetts has positioned the state to become a leader in promoting equitable access to solar. Unfortunately, the current version of the proposed SMART program does not make good on this promise. For low- and moderate-income households, high upfront costs and strict credit score requirements are barriers to financing solar through conventional models such as upfront purchases, loans, and power purchase agreements. As it stands, homeowners with FICO scores below 680 (>50%) and many small businesses and nonprofits are ineligible for any traditional sources of solar financing. To address this gap, Resonant Energy and its community partners have pioneered the Solar Access Program (SAP), a solar hosting program that allows us to put solar on any building in the Boston area, regardless of income or credit score, and provide immediate electricity savings of 10-30% with no upfront or ongoing cost to the host. However, the SMART Program, as proposed would make SAP infeasible and would bar residents of MA's frontline communities from accessing the benefits of solar.

## SOLAR-READY HOMES IN BOSTON'S ENVIRONMENTAL JUSTICE COMMUNITIES<sup>1,2,3</sup>



<sup>1</sup> Solar Ready Homes are houses that are owner-occupied, have had a roof replacement since 2009, can host an estimated capacity of  $\geq 4$  kW-DC, and haven't already installed solar.

<sup>2</sup> The EEA defines an [environmental justice \(EJ\) population](#) as a neighborhood where 25% of the households have an annual median household income that is equal to or less than 65% of the statewide median or 25% of its population is minority or identifies as a household that has English isolation.

<sup>3</sup> Mapped by Resonant Energy, June 2017. Sources: EJ Populations 2010 Census shapefile, Mass GIS (Dec. 2012); Boston Neighborhoods shapefile, Boston Redevelopment Authority (Aug. 2016); Solar Ready Homes, publicly available data (May 2017).

## **SOLAR ACCESS PROGRAM**

Phase I of the Solar Access Program includes 18 hosts — 15 residents of low income neighborhoods and 3 nonprofits. Of the residents who have signed up, over 80% are people of color. Ten additional hosts in Dorchester and Mattapan have already signed up for Phase II. On average, each solar host realizes \$250 per year in electricity savings. The hosting and compensation mechanics of SAP are similar to the [SolarHostSA program](#) developed by the largest municipally owned utility in the United States, CPS Energy of San Antonio; however, in SAP, the excess electricity is sold to creditworthy anchor institutions, rather than a utility company.

The final SMART program design will determine whether or not there is a future for solar in Massachusetts' frontline communities. As shown in the map above, nearly 2,000 households in Environmental Justice (EJ) communities — census block groups with high minority, non-English speaking, and/or low-income populations — have rooftops that are ready for solar. Collectively, these households could generate nearly 16,000 MWh of electricity and save over \$0.5 million every year through a solar hosting model like SAP — but only if the following changes are made to SMART regulations:

- 1. Expand the definition of a Low Income Customer to include any End Use Customer whose property is located in a census block group that is a recognized Environmental Justice (EJ) community.**
- 2. Create a Low Income/EJ Solar Hosting Tariff Generation Unit category with a minimum Base Compensation Rate of at least \$0.33 per kWh.**

## **DEFINITION OF LOW INCOME/EJ CUSTOMER**

Higher compensation rates are necessary in order to make solar accessible for people in frontline communities. However, many of the people who would stand to benefit the most do not qualify as a “Low Income Customer” as currently defined in 225 CMR 20.00. Instead, SMART regulations should align with proposed legislation [HB 3396](#) that will promote equitable access to solar power for low-income and recognized EJ communities. Ultimately, households that receive a discounted utility rate and/or are located in recognized EJ communities should receive a higher SMART compensation rate.

## **DEFINITION OF LOW INCOME/EJ SOLAR HOSTING TARIFF GENERATION UNIT**

The financial viability of the Solar Access Program relies on selling a portion of the electricity generated by low income households to creditworthy anchor institutions. To allow this innovative program to continue and grow, the SMART program should create a category for a Low Income/EJ Solar Hosting Tariff Generation Unit, which would be a Solar Tariff Generation Unit with an AC rated capacity of less than or equal to 25 kW that allocates 10% or more of the electricity or net metering credits generated to the on-site meter of a Low Income or EJ Customer at no charge.

## **BASE COMPENSATION RATE FOR LOW INCOME/EJ SOLAR HOSTING TARIFF GENERATION UNIT**

Low-income and EJ solar projects will not be economically feasible at proposed compensation rates. Assuming market rates for installation and third-party financing, a minimum base compensation rate of at least \$0.33 per kWh is necessary in order to provide low-income and EJ solar hosts with 15% of the output at no cost as an incentive for leasing their roof. See table below for the necessary rate factors under various results of the competitive procurement process, where green-shaded cells contain adequate base compensation rates.

CLEARING PRICE VERSUS BASE COMPENSATION RATE FACTOR (LI/EJ HOST, <25KW-AC)				
	230% (current)	250%	300%	330%
\$0.10	\$0.23	\$0.25	\$0.30	\$0.33
\$0.11	\$0.25	\$0.28	\$0.33	\$0.36
\$0.12	\$0.28	\$0.30	\$0.36	\$0.40
\$0.13	\$0.30	\$0.33	\$0.39	\$0.43
\$0.14	\$0.32	\$0.35	\$0.42	\$0.46
\$0.15	\$0.35	\$0.38	\$0.45	\$0.50

Thank you for your consideration of our comments. With these proposed changes, we believe that the final SMART program design will create meaningful impact in limited resource communities and demonstrate policy that ensures equitable access to solar for all.

Yours Sincerely,

Resonant Energy	Boston, MA
Climate Action Business Association	Boston, MA
East Somerville Main Streets	Somerville, MA
Co-op Power	Florence, MA
St. Augustin & St. Martin	Roxbury, MA
Climate Action Brookline	Brookline, MA
Solstice	Cambridge, MA
Jewish Climate Action Network	Medfield, MA
Solar Design Associates	Harvard, MA
Clean Water Action	Statewide
RENEW	Worcester, MA