



September 1, 2020

MA Energy Efficiency Advisory Council
c/o Judith Judson (Chair, Executive Committee)

RE: State of the Industry: SOLAR HOT WATER in Massachusetts

Dear Committee,

We are writing to ask for your help to save a successful local renewable energy industry that may not survive through 2021. The Solar Hot Water (SHW) industry has made tremendous strides over the past 9 years in Massachusetts, but like Solar Electric (PV) systems in the present climate with fossil fuel prices so low, incentives are necessary in order to attract the average homeowner to renewable energy systems. Currently, SHW systems qualify for (3) major incentives, all of which will be diminished or eliminated in 2021. These incentives are well worth the investment due to the benefits supplied by the SHW industry in MA. Please find below a summary of the Industry's Benefits, Expiring Incentives, and Suggested Actions for 2021.

To preserve this industry and its obvious benefits to the residents of MA, please consider the Suggested Actions shown below as well as other actions of your design. For further information, feel free to contact any of the co-signatories listed below. Thank you very much for your attention and your consideration.

Sincerely yours,

Co-Signatories:

Bruce Dike, New England Solar Hot Water, Canton, MA; john@neshw.com
Erica Boyle, Renewable Energy Systems, Cohasset, MA; erica@ressolar.com
Spartan Giordano, Spartan Solar, Greenfield, MA; gospartansolar@gmail.com
Stu Besnoff, Alpine Solar Heat & Hot Water, Windsor, MA; stu@alpinesolarheat.com
Steve Cuzziere, GoGreen Industries, Westford, MA; smc@gogreenindustries.us
Ben Mayer, Sunbug Solar, Arlington, MA; ben.mayer@sunbugsolar.com

Additional Supporters:

See attached Page 4.

BENEFITS:

1) Energy/ CO2 Emissions Savings:

As shown in the Mass CEC database, over 1,280 residential and 110 commercial Solar Hot Water systems have been installed over the past 9 years. 76% of residential systems have replaced oil-, gas-, or propane-fueled water heaters, with 24% replacing electric water heaters. By directly offsetting fossil fuels, these systems are saving over 30,000 MMBTUs of energy and 4M lbs. of CO2 emissions every year. Embodied energy savings also plays a role as SHW tanks are robust and built to last 20 years, thus eliminating the embodied energy in conventional hot water tanks typically replaced every 7-9 years.

2) Ratepayer cost savings:

Saving energy means saving money, and as fossil fuel prices rise, SHW systems offer increased \$ savings for homeowners. SHW systems have proven to be affordable and achievable for low- and moderate-income households. Over the past 4 years in MA, more than 22% of residential and 28% of large commercial SHW projects have been installed for these households, providing much needed \$ savings through lower utility bills. These installations are made possible thanks to progressive rebates from the MassCEC and MassSave's successful 0% interest HEAT loan program.

3) Local jobs:

SHW is a labor-intensive industry, with every installation requiring local installers with payroll comprising up to 40% of system costs. The Mass CEC data base shows over \$23.9M invested in SHW systems over the past 9 years, of this, we estimate over \$9.5M went directly to local workers in MA. In addition, many of the system hardware components are made in MA including the most expensive component: solar storage tanks (custom made by local installers as well as OEM from local companies.) SHW provides COVID-resistant jobs. Our industry has been busier than ever during the Coronavirus pandemic as homeowners continue to improve their homes. By following COVID-19 protocols, installations are safe for workers and homeowners.

4) Electrification:

The state of MA is pushing to electrify households and the rapid adoption of Air Source Heat Pumps has created a need for non-fossil fuel-based domestic water heating. Most SHW residential customers are opting to replace their existing water heaters with a solar tank with electric backup. With SHW, typically 80% of heat is supplied by renewable solar energy with the remaining 20% supplied via the grid. Direct on site burning of fossil fuels is thus eliminated.

EXPIRING INCENTIVES:

1) MassCEC rebate:

This rebate is currently the driving force behind the success of the SHW industry in MA. It is slated to be eliminated in 2021 with no replacement incentive scheduled. The loss of this rebate will add \$2,000 to the net cost of a typical residential system.

2) MA DOER APS- Alternative Energy Certificates (AECs):

This program was highly successful when begun in early 2018. It helped make up for the reduction in rebates from the MassCEC. However, in 2020, the market for AECs crashed and the value dropped by 70%. This drop added \$1,000-1,500 to the net cost of a typical residential system.

3) Federal Tax Credit:

The Solar Tax Credit can be applied to both Solar PV and Solar Hot Water systems. The credit has been reduced this year and is slated to be reduced further next year and eliminated in 2022. The loss of this credit would add \$2,500-3,000 to the net cost of a typical residential system.

SUGGESTED ACTIONS:

1) MA DOER:

Revise the MA DOER APS program such that awards are less volatile and returned to amounts initially envisioned. This could be done either by increasing the obligation or revising multipliers for SHW systems.

2) MassCEC:

Utilize the entire remaining MassCEC rebate funds designated for Solar Hot Water rather than eliminating remaining funds at the end of 2020.

Continue to fund successful MassCEC group-buy promotional programs such as HeatSmart or Solarize Plus to continue to grow the market for solar hot water systems.

3) MassSave:

If the MassCEC rebate must end, replace it with a simple MassSave rebate similar to those offered for other efficient heating and cooling appliances. Maintain the 0% HEAT Loan option for homeowners who purchase SHW systems.

4) All Policymakers:

The Federal and MA solar investment tax credits are necessary to maintain the momentum of both the Solar Hot Water and Solar PV industries. If possible, please use your influence to extend these essential incentives.

PRELIMINARY LIST OF SUPPORTERS

(Additional supporters can be gathered as time allows.)

Affordable Housing owners/developers:

Homeowner's Rehab, Inc., Cambridge, MA
Nathaniel Dick, Preservation for Affordable Housing, Boston, MA
Marcia Hannon, CASCAP, Inc., Somerville, MA
Jan Griffin, Pine Street Inn, Boston, MA
Diane Frohlapfel, Winslow Village Apts., Marshfield, MA

Manufacturers/Suppliers:

Dave Davis, CEO, Heat Transfer Products, New Bedford, MA
Frank Stiebel, President, Stiebel Eltron USA, Hatfield, MA

Non-profit/public Energy Efficiency Organizations:

Ken Pruitt, Energy Mgr., Town of Arlington, Arlington, MA
Salem Sustainable Committee, Salem, MA
MassEnergize, Concord, MA
Susan Murphy, Melrose Energy Commission, Melrose, MA
Kaat Vander Straeten, Solarize Plus Lincoln-Sudbury-Wayland, Wayland, MA
Renewable Energy Committee, Swampscott, MA
Tom Chase, Climate Protection Action Committee, Cambridge, MA
Mayor Roxann Wedegartner, Greening Greenfield, Greenfield MA

Engineers/Consultants:

Green Harbor Energy, Acton, MA
Ben McDaniel, Principal, CHS Energy, Greenfield, MA
HIS & HERS Energy Efficiency, Northampton MA
Eco+Plan Design LLC, Greenfield, MA
Energia, Holyoke MA
Simple City Studio LLC, Florence MA
Precision Decisions, West Stockbridge MA

Installers/Contractors:

Northeast Solar, Hatfield MA
Wright Builders, Northampton MA
Noble Home, Shelburne MA
Erik Praetz Electric, Colrain MA
New Generations Plumbing and Heating, Hampden MA
Berkshire Photovoltaic Services, North Adams MA
Apollo Contracting, Leverett MA
Murphy Builders & Remodeling, North Adam MA

Other Supporters:

Knight Business Services, Deerfield MA
Grassroots Landscaping, Leverett MA
Scenic Window Company, Greenfield MA
Real Pickles, Greenfield MA
Cricket Creek Farm, Williamstown MA