

June 2, 2015

Senator Benjamin Downing
Representative Thomas Golden
Joint Committee on Telecommunications, Utilities and Energy

Dear Chairman Downing, Chairman Golden:

I write on behalf of Clean Water Action and the Green Justice Coalition (GJC), of which we are a member. The growth of distributed clean energy like solar is critical in Massachusetts, and net metering and virtual net metering are policies that have successfully expanded clean energy while expanding access to it, grown local economies and created jobs. Solar is a critical component of Massachusetts commitment to reduce greenhouse gas emissions. And we need solar to combat economic inequality, stabilize energy costs and decentralize our power.

In summary, Clean Water Action's testimony reviews the following priorities and concerns:

- Massachusetts has led on solar and should continue to lead. As we grow our green economy, we need to invest in the kind of policies and projects that expand access to clean energy to those who need it most. Senate Bill 1770 and House Bill 2852, *An act relative to net metering, community shared solar and energy storage*, would help do just that and are the best existing vehicles for advancing strong solar policy.
- Caps on net metering disproportionately disadvantage low and moderate income residents and renters, while also blocking municipal projects that save taxpayers money.
- Solar net metering is good for Massachusetts and for utility ratepayers. Claims to the contrary rely on mythological inflation of costs and complete dismissal of benefits, tactics designed to enrich private utility companies at the expense of our Commonwealth.
- Massachusetts has select model apprenticeship programs as exhibited by entities like IBEW 103. Partnering with the clean energy industry, community organizations, unions and environmental advocates to expand these programs and connect neighborhood residents to green projects in their own communities is a critical next step.
- We call on the legislature to immediately suspend the solar net metering cap, initiate a Value of Solar investigation and expand the state's shared solar programs. In addition, a Next Generation Solar Policy Framework authored by the Acadia Center would grow solar, preserve critical policies and correct flaws in the current incentive system.

Virtual net metering expands opportunities; caps on net metering worsen inequality.

Thanks to Massachusetts' leadership on solar, renters, low- and moderate- income people can use shared solar and virtual net metering to reduce their utility bills. Unfortunately, the net metering cap blocks the very kinds of projects that allow these communities to thrive on clean

energy. Aforementioned bills, in addition to aligning net metering cap with our existing policy goals, would encourage growth of shared solar and, set an ambitious but achievable target of 20% solar by 2025. It also moves to change the exemption size for net metering caps so that if caps remain in existence, they no longer obstruct projects designed to serve low-income people.

As a brief aside, the Eldridge/Calter legislation would also begin an energy storage program, which I am pleased to note the Baker administration has acted on just days ago. Among other benefits, storage will help meet us increase community resiliency, meet our peak power demand without new fossil fuel infrastructure, and facilitate the growth of electrical vehicles.

Community shared solar and “virtual” net metering are extending the benefits of solar energy to the vast majority of Massachusetts residents who cannot put panels on their roofs. Solar gardens—typically between 500 kilowatts and 2 megawatts in size—create opportunity for communities across the state and we cannot afford to obstruct their development.

In the furthest regions of the Berkshires, the Center for Ecotechnology is developing solar gardens for rural towns. In Southeastern Massachusetts, Mattapoisett’s shared solar garden offers renters a pathway to clean energy, and New Bedford’s solar schools save the public money.

It’s not merely solar gardens, but many nonprofit, municipal, and low-income housing projects as well. Communities working to heal and grow already see the promise of solar. Service providers like Worcester’s Dismas House use bill savings from solar energy to help fund programs for prisoners reentering society and formerly homeless people. Were it not for the caps on net metering, many more would benefit.

Solar is good for cities and towns. At least 175 cities and towns in Massachusetts host one or more of their own solar projects. More than 400 municipal projects have a combined capacity of over 340 MW. Solar benefits cities and towns by reducing and stabilizing energy costs and increasing tax revenue. In New Bedford, the local government has installed 10 solar projects across the city and currently has the most installed solar per capita in the continental United States. These 10 solar projects will save the city an estimated \$22 million in electricity costs over the next 20 years. With net metering caps in place, further projects like these are blocked in over 170 communities.

Unfortunately, some policymakers continue to pull talking points straight from the utility playbook. The position of the Baker Administration directly disadvantages projects that would reduce energy costs for public buildings and low-income communities, and relies on false assumptions that have been disproven by studies in New England and across the country.

Net metering and solar are good for the Commonwealth and utility ratepayers

Sunlight is free, abundant and requires no extraction. Producing power closer to where it is used eliminates losses along power lines and a distributed network of small-scale power generation can reduce the need for new generation or transmission. Solar prices are stable, eliminating a risk baked into volatile fossil fuel prices. When clean energy reduces demand for oil and gas, it lowers their price, and powering our communities with solar reduces the need to run expensive, dirty generators on hot days. Renewable energy lowers wholesale energy costs and in New

England, the future is even brighter: renewable energy can now bid *negatively* into energy markets, giving solar and wind the ability to further reduce costs and displace fossil fuel use in regions with transmission constraints.

Solar also disrupts the traditional utility business model, ushering in critical debates around who owns and who pays for our power grid and transmission lines. Investor-owned utility companies, waging a national campaign against solar, have publicly opined that solar hurts non-solar ratepayers while quietly omitting the fact that their shareholders are complaining about sinking distribution revenues and pushing new pipelines and transmission.

Because these companies currently operate much of the state's infrastructure, it is critical to examine solar's actual benefits and costs. An analysis for Massachusetts by the Acadia Center puts the value of solar electricity—that is, the benefits to the grid and those connected to it—at 22-28 cents/kWh, with additional societal values of 6.7 cents/kWh. Public utility commissions in Maine and Vermont have also found solar net metering to provide substantial benefits with minimal costs. In fact, a growing body of research shows solar power and net metering (a.k.a. net energy meeting or NEM) are net positive for solar and non-solar users:

- A 2015 [analysis](#) by the Acadia Center puts the value of solar in Connecticut at 20-25 cents/kWh. This valuation does not include an estimated 9.6 cents/kWh of benefits resulting from avoided pollution, such as carbon, SOx and NOx emissions.
- A 2015 Maine [study](#) valued solar at 33 cents per kWh, more than twice the cost of utility power. A 2014 [evaluation](#) of net metering in Vermont found “net cost over 20 years to non-participating ratepayers... is close to zero, and there may be a net benefit.”
- A 2015 cost-benefit [study](#) of net metering in Missouri concluded that the practice is beneficial for all customers, regardless of whether they have rooftop solar or not. The benefits of net metering in Mississippi outweighed the costs in all but one scenario according to a 2014 [study](#). A 2014 [study](#) by the Nevada Public Utilities Commission shows that benefits of rooftop solar outweigh the costs. A 2013 [study](#) commissioned by the California Public Utilities Commission found that solar customers cover their full costs to the electric grid.

As noted in testimony by Attorney General Healey:

“A long-term, balanced solar policy must ensure that non-solar customers are not disproportionately subsidizing expansion of solar, and that all the costs and benefits to the system and society are realized and accounted for fully and appropriate. Studies conducted in other states have concluded that solar net metering is a net benefit to all utility customers because solar provides significant benefits to the electric grid, environment and economy.”

We concur with the Attorney General's moral and empirical determinations: we need to avert undue burden while accurately studying and compensating the value of solar generation. Please see attachment labeled “**Solar Benefits and Costs**” for more detail on this subject and citations for this section.

Next Generation Solar Policy Requires Legislative Action and Rate Redesign

We also support a comprehensive Next Generation Solar Policy proposal by the Acadia Center which would preserve virtual net metering, create separate items on the utility bill addressing compensation for the supply and distribution of solar energy, correct a flaw in rates which disadvantages solar development in the the Eversource/WMeco territory, and incentivize projects that relieve congestion on our power grid or reduce utility rates for low- and moderate-income residents. Please see the attached framework &/o Acadia Center testimony for more detail.

Caps on net metering and proposed minimum mandatory fees on solar and competitive procurement models are false solutions to the wrong problems. These policies enrich private utilities companies, who are losing some revenues because their business model is outdated, to the detriment of municipalities, the clean energy industry, nonprofit service providers, low-income housing projects and renters who rely on shared solar gardens. Minimum fees are harmful to low energy users. Competitive procurement is a proven way to stall solar development and disadvantage projects with a longer timeline for development, such as shared solar gardens.

On the other hand, it is entirely reasonable to reduce solar incentives, especially for the largest projects, over time, and to consider what incentives are necessary to support deployment of clean energy and sustain a viable market. Incentives beyond this should be consider if they help meet targeted policy goals, such as subsidizing low-income solar projects or addressing congestion on the grid.

We are proud that Massachusetts leads on solar. Please continue that commitment and ensure that as we fight climate change we also fight inequality and foster opportunity. Should you care to contact me, please do so at 617-338-8131x205 or by email at jwool@cleanwater.org.

Sincerely,

Joel Wool
Advocate for Energy and Environment
Clean Water Action