



March 15, 2022

Stretch Energy Code Development 2022

Stretch Code Straw Proposal: Stakeholder Review and Comments

Massachusetts Department of Energy Resources

Comments of Arcadia on DOER Stretch Code Straw Proposal

Arcadia appreciates the opportunity to provide comments to the Department of Energy Resources (DOER) as part of the 2022 Stretch Code Straw Proposal comment and review process. Massachusetts is a national leader in establishing robust building energy codes consistently aligned with international standards, and the state's emphasis on continuous improvement and incorporation of stakeholder feedback throughout this process is highly commendable. This stakeholder process coupled with DOER's commitment to robust standards will ensure a long-term sustainable building sector for all Massachusetts residents.

Below we provide an overview of Arcadia's extensive experience working in the renewable energy sector across the United States. We then provide specific, targeted recommendations to increase optionality and customer transparency.

Background

Arcadia is building the software necessary for everyone in Massachusetts to realize the full benefits of clean energy. Today, customers face a bewildering assortment of energy technologies – ranging from energy efficiency and renewable energy offerings to battery storage and electric vehicles – all of which have unique capabilities, costs, and user experiences. Arcadia's software makes it possible for energy technology providers to delight their customers and move clean energy forward by enabling simple user experiences that will save people money. The first industry served with Arcadia's software is community solar, where Arcadia manages subscribers across more than 500 MW nationwide - making it the largest manager of residential community solar subscribers in the United States.

Recommendations

DOER's proposed Specialized Opt-in Code provisions for residential New Buildings in Massachusetts municipalities are robust and provide a variety of constructive options for achieving net zero code compliance. However, there are additional opportunities to strengthen the proposed requirements for residential buildings with fossil fuels. These codes will benefit from additional compliance optionality and improved customer transparency.

Based on insights gleaned from across the country and in Massachusetts, we recommend three distinct amendments to these requirements:

1. Allow participation in a community solar project to count as an additional compliance option by which residents and builders can facilitate solar access at their buildings;
2. Require that rooftop solar developers provide up-front savings estimates for rooftop solar customers; and
3. Require that rooftop solar providers offering rooftop system leases or Power Purchase Agreements (PPAs) provide their residential customers with ongoing, monthly reports illustrating utility bill savings from their rooftop systems.

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These recommendations are discussed respectively below.

Recommendation 1: Expand Specialized Opt-In Code requirements for all new residential units using gas/propane or other fossil fuels (1-2 family, townhouse & small multi-family structures) to include community solar as a solar compliance option, through participation in the Solar Massachusetts Renewable Target (SMART) program.

The newly proposed Specialized Opt-In Code requirements require that these new single family homes have “solar on roof where feasible.”¹ Currently, only 34% of American families can take advantage of the benefits of rooftop solar installations due to financial or physical siting constraints.² We propose a targeted recommendation to expand the rooftop solar requirement to include community solar as a compliance option via participation in the SMART program, which offers customers very similar distributed generation benefits that rooftop solar installations offer, without the burden of financial requirements, long-term commitments or control of a suitable roof. In addition, this will remove the exceptions in this proposal that solar should only be required, “on roof where feasible” or “where unshaded”. Rather, with the optionality provided by SMART community solar, all households may participate even if rooftop solar is not feasible or when the roof is shaded, expanding the overall reach of these codes. Additionally, using community solar as a building code compliance option has established industry precedents. For example, LEED Building Design and Construction standards allow for use of community renewable energy systems such as community solar farms to meet LEED building energy requirements,³ which serve as respected industry standards for green buildings.

Increasing optionality will provide communities with more tools to comply with Specialized Opt-In Code requirements, help meet policy objectives set forth through the 2021 Climate Act, and offer increased flexibility for builders and building owners in meeting the ambitious requirements.

Recommendation 2: Require that rooftop solar developers provide residential customers with anticipated up-front estimates of cost-savings with transparent data illustrating anticipated utility bill savings achieved from their installed rooftop solar systems.

Key states have established strong consumer protection requirements for rooftop solar customers. For example, in 2018, the California Public Utilities Commission (CPUC) adopted a set of forward-looking consumer protection measures for rooftop solar customers throughout California.⁴ Among the approved provisions was a requirement that rooftop solar developers illustrate anticipated up-front cost savings for customers, providing transparent estimates to help educate customers and facilitate their informed financial decisions and commitments pertaining to their investments in rooftop solar systems. We propose that the Specialized Opt-In Code

¹ Commonwealth of Massachusetts, Department of Energy Resources. *Building Energy Straw Proposal: Updated Stretch Code & Specialized Opt-In Code*. February 2022.

² Arcadia. *Why Community Solar Solves Solar's Biggest Problem*. February 2020. <https://blog.arcadia.com/why-community-solar-solves-solar-s-biggest-problem/>

³ U.S. Green Building Council, Leed Credit Library. *Leed Building Design and Construction - Renewable Energy Production*. Accessed at <https://www.usgbc.org/credits/new-construction-core-and-shell-schools-new-construction-retail-new-construction-data-44>.

⁴ California Public Utilities Commission. *California Solar Consumer Protection Guide*. Updated March 2022. Accessed at <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/net-energy-metering/california-solar-consumer-protection-guide>.

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incorporate a similar consumer protection provision requiring that rooftop solar developers provide customers with up-front cost savings estimates, reflective of applicable anticipated tariff/rate fluctuations, to inform customer decision making, and provide additional consumer protection at the point-of-sale.

Recommendation 3: Require that rooftop solar providers offering rooftop system leases or power purchase agreements (PPAs) provide residential customers with ongoing, monthly reports illustrating utility bill savings from their rooftop systems.

In addition to an up-front savings estimate aligned with the California model, we also propose revising the Specialized Opt-In Code to require that for residential customers leasing or engaging in PPAs with rooftop solar developers, these developers should provide applicable customers with data illustrating the ongoing monthly utility bill savings achieved from their leased rooftop solar systems/PPAs. This provision would facilitate increased transparency and consumer protections for participating rooftop solar customers, ensuring that they are continually informed about their clean energy usage, consumption, and monthly savings from participating in rooftop solar through leases or PPAs. Additionally, by requiring that rooftop solar developers provide data illustrating customers' ongoing savings, participating consumers can rest assured that they are continually and transparently informed about their energy usage and savings. Requiring monthly reports illustrating utility bill savings is a proactive program provision that would ensure that consumers remain fully cognizant of the financial impacts of their rooftop solar leases or PPA arrangements.

Conclusion

DOER's stakeholder comment process on the Specialized Opt-In Code is a significant step towards furthering progressive green building standards for Massachusetts communities. To improve the customer experience and consumer protections for those opting into the Specialized Opt-In Code, we strongly recommend that DOER 1) Incorporate additional compliance optionality for all new residential buildings to match their solar use through SMART community solar program participation, 2) Require that rooftop solar developers provide customers with data illustrating up-front savings resulting from their rooftop installations, and 3) Require that rooftop solar providers offering rooftop system leases or rooftop PPAs provide residential customers with ongoing, monthly reports illustrating utility bill savings from their systems. These measures will help ensure sufficient optionality in meeting net zero requirements, as well as enhanced consumer protections for rooftop solar customers.

We appreciate the opportunity to provide these comments and look forward to our continued work with DOER. Please contact James Feinstein at James.Feinstein@arcadia.com or 202 999 8916 if you would like to discuss these matters further.

Sincerely,



James Feinstein
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