

Governor's Energy Office

Distributed Generation Stakeholder Group

Equity and Access Work Session Summary

Tuesday, October 18, 2022

9:00 a.m. – 12:00 p.m.

Virtual meeting via Zoom

Background

The Equity and Access Work Session was designed specifically to obtain public feedback on relevant considerations as the Distributed Generation Stakeholder Group considers a distributed generation successor program, pursuant to statute. The public was invited to provide feedback during the session or afterward in writing. Written comments were requested by Tuesday, October 25, 2022.

The Work Session consisted of an overview of the Distributed Generation Stakeholder Group by GEO staff, followed by three presentations:

- [Maine Climate Council Equity Subcommittee Relevant Recommendations](#) – Jessica Scott, Governor's Office of Policy Innovation and the Future
- [Sharing the Sun: Community Solar Deployment, Subscription Savings, and Impact on Energy Burden](#) – Jenny Heeter, National Renewable Energy Laboratory
- [A State Perspective on Equitable Community Solar Program Development](#) – Max Joel, New York State Energy Research and Development Authority

Following the presentations, a panel including the three presenters joined by Megan Hannan, Executive Director of the Maine Community Action Partnership, and Abbe Ramanan, Project Director for the Clean Energy States Alliance, discussed the contents of the presentations, their implications for distributed generation, and key perspectives related to the topics of equity and access.

After the panel discussion, all attendees were invited to join breakout rooms to engage in dialogue and share their perspectives on the topic. During the panel discussion and breakout sessions, staff took notes to generate this summary document. Prompting questions for these breakout sessions included:

- How should the future distributed generation program ensure benefits are accessible to everyone?
- How should the future distributed generation program ensure costs are distributed equitably?
- How should the future distributed generation program contribute to lowering energy burdens?

42 participants joined the session by Zoom. Three entities submitted written comments and additional information following the session, included as an appendix to this summary.

The agenda and presentations from the equity and access work session are available here:

<https://www.maine.gov/energy/studies-reports-working-groups/current-studies-working-groups/dg-stakeholder-group>

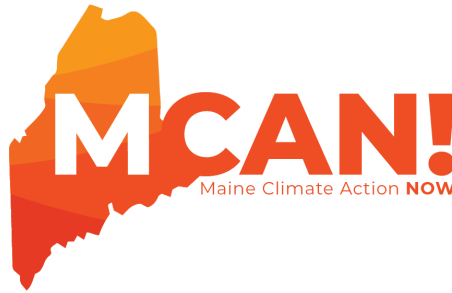
Feedback Summary

Topic	Summary
<i>Broad support for a streamlined and accessible program with clear and tangible benefits</i>	<ul style="list-style-type: none"> • Communication of program benefits should be clearly conveyed with an emphasis on education and energy literacy. • A lack of education and trust can manifest as a barrier to program participation for some communities. These barriers could be bridged by collaborating with trusted community-based partners to communicate information about potential benefits such as energy- or bill-savings opportunities. • Broad support for a programmatic focus on lowering program-related costs, such as customer acquisition and subscriber management, and reducing friction points for consumers during enrollment. Examples included: <ul style="list-style-type: none"> ○ Interest in an “opt-out” rather than an “opt-in” model that would automatically enroll customers, though not require them to participate, in beneficial distributed generation programs. ○ Identifying mechanisms to connect customers enrolled in existing energy/heating assistance programs with distributed generation benefits.
<i>Emphasis on consumer protection</i>	<ul style="list-style-type: none"> • Support for explaining consumer rights regarding privacy and data sharing, as well as verification of the accuracy of program advertising. • Improve ability for customers to compare project offerings side-by-side if applicable. • Examine consolidated billing to reduce the number of parties that require access to customer data. • Increase accountability for consumer protection, such as mandated data privacy standards.
<i>Program implementation should align with other state climate and efficiency programs</i>	<ul style="list-style-type: none"> • Increase emphasis on pairing access to community solar with other beneficial electrification, weatherization, and efficiency programs for more holistic benefits and resilience package. • Identify opportunities to align program administration with other efforts, such as the Maine Clean Energy and Sustainability Accelerator or the Community Resilience Partnership.
<i>Broad support for a program that allows DG to be utilized to reduce energy burdens for LMI customers</i>	<ul style="list-style-type: none"> • Support for targeted community solar procurement for LMI customers with built in savings. • Additional access to low-cost capital and alternative financing models such as Green Bank programs, lease-to-own, or cooperative ownership models.
<i>Maximize the benefits of the IRA</i>	<ul style="list-style-type: none"> • Ensure program design maximizes targeted interconnection, siting, and enrollment components of the Inflation Reduction Act.
<i>Expand the definition of benefits</i>	<ul style="list-style-type: none"> • Tie job creation and local workforce requirements into project development.
<i>Ensure program benefits accrue to all, whether or not they participate</i>	<ul style="list-style-type: none"> • Encourage procurement of solar at the lowest cost, spreading cost savings across all rate payers, while also targeting program benefits toward particular customers to reduce energy burden of most vulnerable.

Appendix

The following comments and additional information were submitted by email following the October 18 work session from:

- Maine Climate Action Now (MCAN)
- Dr. Sharon Klein, School of Economics, University of Maine
- Ampion



Ethan Tremblay
Energy Policy Analyst
Governor's Energy Office
ethan.tremblay@maine.gov

October 24, 2022

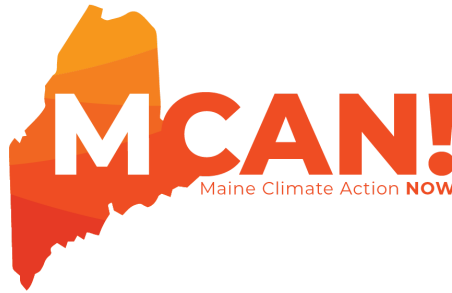
Dear Ethan:

[Maine Climate Action Now](#) is a statewide coalition of fourteen grassroots organizations that support transformative action in response to the climate and ecological emergency. We hold social, antiracist, and economic justice as a central component of the transition to zero carbon emissions by 2030 and demand the equitable implementation of clean renewable energy, ecological land-use practices, and bold community-led action for a more resilient Maine.

Some of our member organizations attended the Distributed Generation Stakeholder Group Equity and Access Work Sessions held this past week. We are submitting comments as a coalition to be considered in the Stakeholder Group's recommendations to GEO that support continued development of renewable energy in Maine through cost-effective distributed generation (e.g. community solar) beginning in 2024.

What stands out for us as a coalition is that subscription models of community solar are often the only choices given to low-to-middle income (LMI) folks. However, much broader benefits are obtained through solar ownership, and subscription models do not bring those benefits to LMI residents. Community-owned solar projects, when paired with financing to remove upfront cost barriers, (like projects funded by the [People's Solar Energy Fund](#)) represent a more equitable model which could best benefit these populations. We feel strongly that Maine must dig deeper beyond the appearance of equity (subscription access) to true equity (community ownership with supportive financing). There is a difference between access and equity.

The upfront cost of solar ownership represents a major barrier for LMI community members who wish to energize their homes with solar panels. These Mainers are shuffled towards subscription models because there has been a lack of financing to support collective ownership of solar arrays. Subscription solar models only offer discounted electricity, and as power costs rise, so does the price of the discounted electricity. Ownership over a solar asset allows much higher savings over time and buffers against increasing energy costs.



Taking equity seriously means an increased focus on low-interest financing for citizen ownership of solar, whether residential or community-built arrays. Hopefully with the influx of federal funds to our state “Green Bank” being held and run by Efficiency Maine Trust, low finance funding for solar will become more readily available.

Not one of the workshop panel presenters spoke to financial mechanisms that could remove upfront cost barriers, the potential of these mechanisms when paired with the community ownership model, or even the difference in equity received from subscription versus ownership.

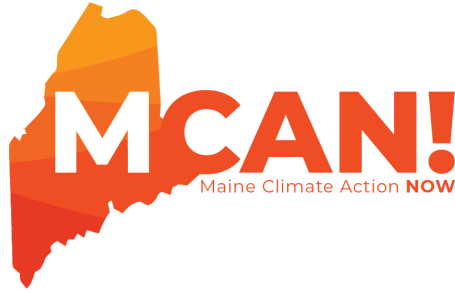
In order to equitably develop access to true community-owned solar, we recommend the funding of paid staff positions *in* communities to help them build such models and educate folks so that they understand the real savings they could have by participating. We feel it takes more than community-based partners to communicate to community members; There needs to be financial support for solar coordinators advocating and working on behalf of the community, not developers. These coordinators would work within their community to identify and prioritize sites, develop requests for proposals (RFPs) in order to partner with engineering, procurement, and construction contractors on locally owned distributed energy projects, and educate community members and leaders.

Community buy-in and support for solar energy can increase the use of solar as a clean, renewable energy resource in our state. Currently, small communities are reacting negatively to investor-owned (out of state) solar companies coming in to build arrays in communities for profit. They are passing moratoriums, whether temporary or more long-term, blocking large scale solar development.¹ If we want this to change, community involvement and ownership over local solar projects would be a good place to start. We believe this involvement and sense of ownership will garner much more support for the design and implementation of these projects.

To support true equity in the transition to clean energy in Maine, our recommendations include:

- Support and promote true community-owned solar projects
- Create low interest financing for such projects
- Require Maine’s utilities to offer on-bill financing for residential solar projects
- Spread interconnection costs for residential and commercial arrays among ratepayers

¹ <https://www.wmtw.com/article/lovell-maine-solar-project-moratorium-vote/38898474> and https://www.conwaydailysun.com/news/local/fryeburg-voters-pass-solar-moratorium/article_b5e2c18a-1ca1-11ed-bf9c-dfef613071f6.html



- Create a separate and lower NEB rate for commercial arrays that offer subscriptions instead of shares
- Maintain full net energy billing credit rate for Level 1 residential, small business, and non-profit arrays
- Maintain full net energy billing credit rate for community-owned Level 2 DEG projects
- Fund Community Solar Coordinators
- Supply educational materials in accessible language and translated to the dominant language of a community if applicable

Thank you for accepting our comments. We appreciate being included in the Distributed Generation Stakeholder Group Equity and Access Work Sessions and being offered this opportunity. We look forward to seeing the 'successor program' proposal.

Sincerely,

Amy Eshoo

Director

Maine Climate Action Now

maineclimateaction.org

Community Solar Billing and Energy Burden:
the case for a mixed flat rate and percentage-based approach
Sharon Klein, 10/18/22

With the community solar models currently being deployed in Maine (subscription-based as opposed to the pre-2019 true-ownership models), there is a disincentive and confusion for customers to subscribe in the face of rising electricity prices. For example, imagine a customer that uses 1000 kWh of electricity and offsets half of this electricity with their community solar subscription. Under the current community solar approach, the customer would save 15% compared to their typical retail electricity rate on 500 kWh and pay 2 bills, one to the electricity service provider (Versant, CMP, etc) and one to the community solar provider (Powermarket, Nexamp, etc). Using the average Maine residential retail price of electricity from the [US Energy Information Administration \(EIA\)](#) for July 2022: \$0.2311/kWh, that customer would have a total of \$214 in electricity costs (\$116 to the electricity provider and \$98 to the community solar provider). If on-bill financing was an option, the total payment the customer would experience would be the same unless on-bill-financing offered additional savings beyond the 15% due to increased administrative efficiencies.

In this example, the customer experiences an 8% savings on their total bill because of their choice to enroll in community solar. If electricity prices rise to \$0.30/kWh, the customer's total payment increases to \$278 and their total savings stays steady at 8%. Their payment to the electricity provider increases to \$150 AND their payment to the community solar provider increases to \$128. This is the part that is counter-intuitive to the customer and does not help reduce energy burden as much as it could. The payment to the community solar provider increases because the savings guaranteed to the customer is a % savings, not a flat rate. Whereas before, 15% of \$0.2311 x 500 kWh = \$17.33, now 15% of \$0.30 x 500 kWh = \$22.50, so the \$ savings with the higher electricity price is larger. However, the payment to the community solar provider for the 85% is also higher: 85% of \$0.2311 x 500 kWh = \$98.22; 85% of \$0.30 x 500 kWh = \$127.50. Overall, the customer experiences paying a higher bill to the electricity provider AND a higher bill to the community solar provider. Even though the overall payment is still less than it would have been if the customer had not enrolled in community solar at all, the customer may feel like they should be paying the same or less to the community solar provider since solar is supposed to help them save money relative to increasing electricity prices.

One approach to be more consistent with customer expectations and more proactive in reducing energy burden in the face of rising electricity prices could be to use a flat rate instead of a percentage for the community solar portion. Imagine the customer always pays 85% of \$0.2311/kWh to the community solar provider no matter what the prevailing price of electricity is. In this situation, if electricity prices increase, the flat rate approach reduces the customer's total payment relative to the current % approach. However, if electricity prices decrease, now the flat rate customer is paying more than they would have under the current %-based approach. A third option is the customer could pay the flat rate only as long as the electricity price stays the same or increases. If the retail electricity rate decreases, then the community solar payment could become purely %-based and tied to the new rate.

This third option is optimal for addressing energy burden as Figure 1 shows. All three approaches result in the same total cost to the consumer with current pricing. The current

approach has the customer paying more when electricity prices rise than if they had a flat rate of 15% of the current electricity price. The flat solar rate enables the customer to experience a higher total percentage savings across solar and non-solar (up to 17%) than the current approach but penalizes the customer if electricity prices decrease. Combining the flat rate with an adjustable %-based approach when electricity prices decrease leads to the same cost with low electricity prices as the current approach while maintaining the increased percentage savings of 17% when electricity prices increase. This additional benefit as electricity prices increase is more in line with the long-term expected benefits of solar and may increase customer trust in the approach. These effects are more pronounced when the customer offsets more of their electric load with solar (Figure 2). If the customer is only offsetting a little bit of their solar (Figure 3), then the choice of approach does not have as much impact on them. So, if we want to encourage customers to sign up for as much solar as they can and reduce their energy burden as much as possible with the community solar subscription, we should consider a billing mechanism that protects their total savings (not just percentage savings) as electricity prices increase and does not penalize them for having solar if electricity prices decrease. In these examples, applying a flat discounted solar rate (85% of the current rate) for current or higher retail electricity prices, coupled with %-based pricing if electricity prices decrease will be the most effective out of the 3 options at helping to decrease energy burden.

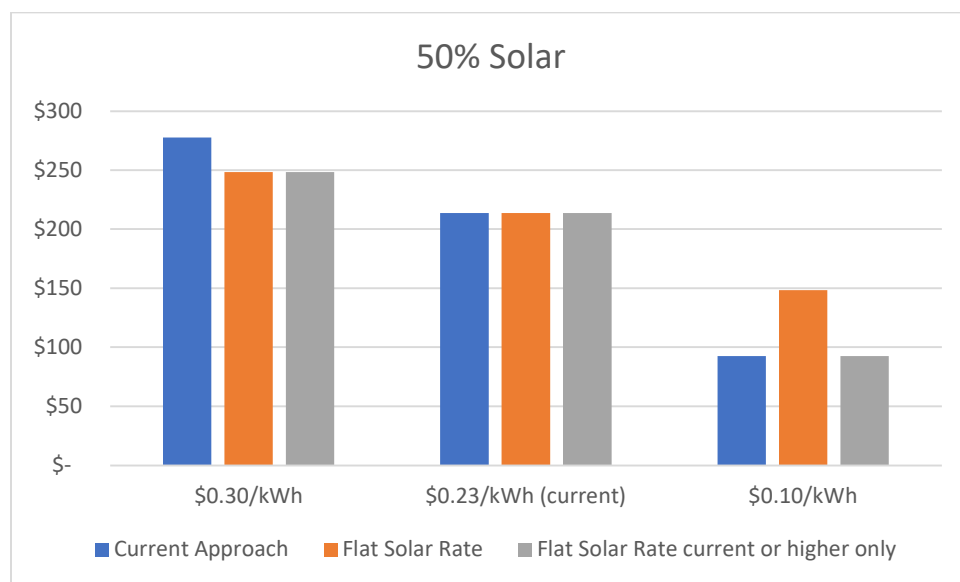


Figure 1 - Comparison of Community Solar Billing Approaches for a Maine customer offsetting 50% of 1,000 kWh with community solar

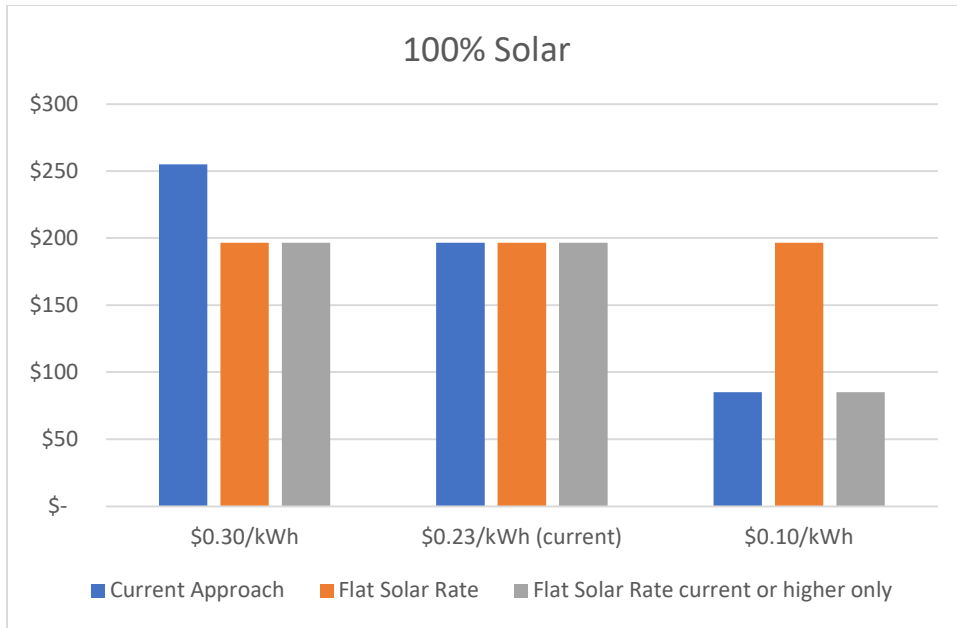


Figure 2 - Comparison of Community Solar Billing Approaches for a Maine customer offsetting 100% of 1,000 kWh with community solar

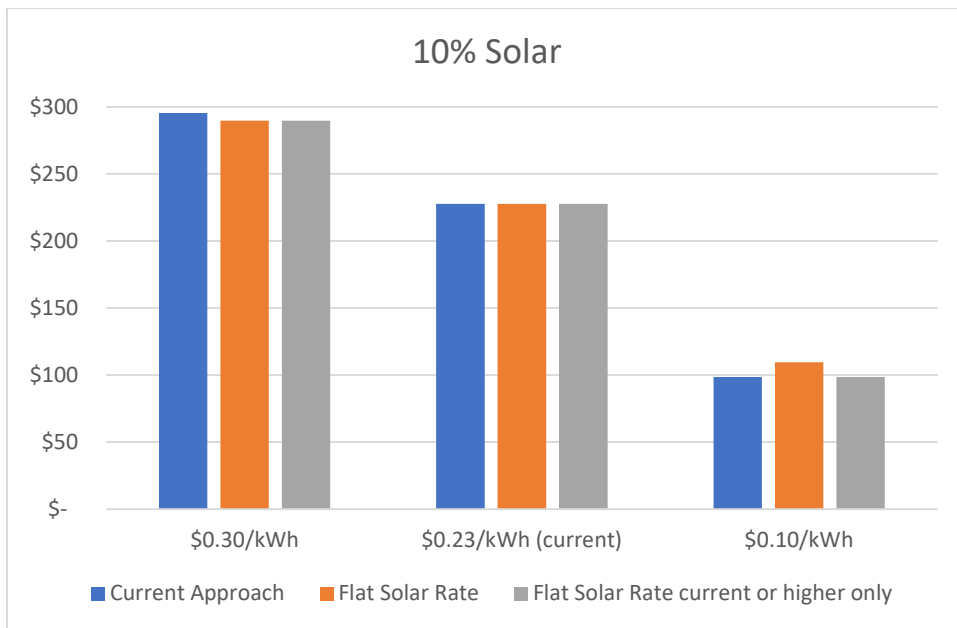


Figure 3 - Comparison of Community Solar Billing Approaches for a Maine customer offsetting 10% of 1,000 kWh with community solar

Dear Members of the Maine Distributed Generation Stakeholder Group,

Thank you for the opportunity to participate in the equity and access work session held on October 18th. We understand that these are not formal comments and there will be an opportunity for more formal comment once the straw proposal is published, but we wanted to provide feedback before the straw proposal was released. We commend the stakeholder group for addressing important issues including equitable access to the benefits of Net Energy Billing (NEB) and reducing energy burden for low-income customers. Ampion is a community solar subscriber organization operating in markets across the country, and we recommend that the stakeholder group incorporate lessons learned from other programs when considering improvements to equity and access in Maine's NEB successor program. This will ensure the implementation of industry best practices while creating continuity in the market for developers. Our written feedback will focus on two strategies contemplated by New York as part of the NY-SUN program that have the potential to increase participation in the NEB Program while reducing energy burden for low-income customers.

Net Crediting

In his presentation to the working group, Max Joel from NYSERDA discussed the implementation of net crediting in New York's community distributed generation (CDG) program. Net crediting is a consolidated billing paradigm for CDG projects. Similar to utility consolidated billing (UCB) for retail supply, the utilities apply NEB credits directly to a subscriber's utility bill while also recovering the value of the bill credits owed to the developer. This allows for subscribers to receive one, simple, monthly bill that represents the net costs of all utility charges and their discounted NEB credits. The key difference between net crediting and the kind of utility consolidated billing seen in the retail electricity space is that UCB typically involves the purchase of retailer receivables by the utility whereas net crediting achieves a similar with less financial entanglement between the utility and community solar providers. This is made possible by the fact that bill credits are an obligation owed to the solar provider, the value of which is split by the utility between the provider and a subscriber.

Net crediting can provide a variety of benefits for Maine's successor distributed generation program. Despite some fundamental differences between Maine's volumetric/kWh NEB program and New York's monetary community distributed generation program, we still believe that net crediting could work for Maine's successor program. Net crediting improves the NEB subscriber experience by simplifying the transaction. Currently, customers who subscribe to an NEB project receive community solar credits on their utility bill, significantly decreasing it, and then receive a second bill from their community solar provider for the value of the NEB credits at a fixed discount. This can be a complicated transaction for lay Mainers, or as discussed in the working group, less sophisticated buyers. Net crediting allows for customers to easily understand their savings by participating in the NEB program because everything is on one bill.

For low-income customers specifically, net crediting would make it possible for NEB credits and existing energy assistance programs to work in tandem to reduce energy burden. In our understanding, a customer receives LIAP benefits directly on their utility account. Given the existing dual-bill NEB crediting paradigm, assistance funding cannot be applied to the customer's NEB bill. This reality poses a fundamental challenge when serving low-income customers who are on utility assistance by pitting NEB subscription benefits and energy assistance benefits against each other.

A brief summary of our business operations in Maine's NEB program will provide an illustrative example of this problem. Ampion is responsible for managing subscriptions and billing subscribers on behalf of NEB project developers. In order to maximize program benefits, our goal is to allocate subscribers up to 100% of their total usage. If we do our job correctly, this results in a utility bill with a balance close to zero. The customer then pays for their NEB subscription at a percentage discount through the NEB bill that Ampion invoices to customers on behalf of the NEB project developers. Because the NEB charges are not represented on the utility bill, a customer's energy assistance benefit cannot be used to cover Ampion's NEB bill and would likely go unused. Essentially, this means that a customer has to make a choice between the discount provided by their NEB subscription or the utility assistance provided on the utility account. In the net crediting model, the NEB bill would be incorporated into the customer's utility bill, and the customer could use their assistance funding to cover the cost of their NEB subscription while also realizing the savings associated with their NEB participation.

We have written out an example below to illustrate the choice that Mainers will have to make between a fixed discount from the NEB program and LIAP assistance. The average LIAP assistance award value is from the Office of Public Advocate's presentation to the Rate Advisory Council in August, 2022.

Average Maine Household electricity usage is 900kWh/month¹ → **10,800 kWh/year**

Average cost of electricity in Maine (residential rate class A): \$0.20/kWh plus \$13.73 fixed customer charge → about **\$0.22/kWh²**

Last year's average LIAP subsidy: **\$325**

$10,800 \text{ kWh} * \$0.22/\text{kWh} = \$2,376$ = Estimated total cost of electricity in one year with no assistance

$\$2,376 - \$325 = \$2,051$ = Estimated total cost of electricity in one year with LIAP applied

¹ EnergySage. "Cost of Electricity in Maine." *EnergySage*, 23 Oct. 2022, <https://www.energysage.com/local-data/electricity-cost/me/#:~:text=That's%20%25%20lower%20than%20the,the%20course%20of%20the%20year.>

² Ibid.

$\$325/\$2,051 = 15.8\% =$ Estimated total savings from customers receiving LIAP.

In our experience, residents who participate in the NEB program receive a range of discount rates to their electricity bill from 10% to 15%. In this calculation, the average LIAP amount applied to the average Maine resident's electricity bill exceeds our highest offer to an NEB volumetric subscriber. Additionally, \$325 is a 2021-2022 average and some recipients were awarded much more than \$325/year which further increases the difference between LIAP assistance and standard NEB program discount offers. Net crediting would allow for a participant to take advantage of LIAP assistance and an NEB subscription which would provide more substantial savings for Mainers in serious need of support in these expensive and cold upcoming winters.

Opt-out Model

Participants in the equity and access work session expressed interest in an opt-out model that would allow low-income customers to be automatically enrolled in community distributed generation projects. Opt-out CDG was highlighted as an offtaker enrollment option by Synapse Energy Economics and Sustainable Energy Advantage in the September 20th Working Group meeting and we wanted to reiterate some key benefits it would bring by creating a more inclusive and streamlined option for municipalities and Mainers to participate in distributed generation.

New York is in the process of approving an opt-out CDG program using the Community Choice Aggregation (CCA) model. The program would enable municipalities to work with CDG administrators to provide residents with the benefits of CDG on an opt-out basis. The New York Opt-out CDG program would prioritize low-income customers by requiring that Assisted Program Participants, customers who participate in utility assistance programs, are assigned to available projects first. This model has the potential to significantly increase participation among customers on utility assistance while building a circle of trust between a municipality, their residents, and the opt-out community distributed generation administrator.

We understand the policy and regulatory circumstances are not the same in Maine as they are in New York. Maine does not currently have any form of Community Choice Aggregation, therefore legislative and regulatory action may be needed to allow for an opt-out program. Additionally, the opt-out model is dependent on net crediting. However, the Working Group has made it clear that increasing equitable access to a successor distributed generation program in Maine is a high priority and we believe that all potential policy options should be considered in order to effectively and efficiently meet this goal.

Thank you for your consideration,

Ampion