Community Renewable Energy Program For Low-Income

Responses to the PSD's Request for Information sent on 7/18/21 and received on 8/18/21

7/20/21 -- Ben Gordesky

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1. It is important that the community scale renewable energy projects be dispersed throughout the state to distribute the economic benefits of construction more equally. However, this should be a weighted distribution based on population. This would mean that there would be more capacity constructed in the more populated parts of the state. This would provide more economic benefits where there are more people. It would keep the energy production closer to the demands for energy. And, it would avoid having the less populated parts of the state dealing with any aesthetic impacts out of proportion to their usage of the energy.
2. The income qualifications should be more than just income. Income and energy burden should be compiled in one formula to rank those who would qualify. The benefits should be variable and go up and down depending on how the utility customer ranks on the qualification scale. A factor should also be included to give a higher qualification score to both black, indigenous and people of color as well as low income white people.
3. The RFP should be geared to have more, smaller community-scale projects, rather than just a few very large ones. For example, if the projects are solar generation, there could be 10 or 20 1MW or 500KW systems as opposed to one 10MW system. Many Vermonters prefer this kind of construction and it also allows more contractors, especially smaller companies, to participate in the construction.

Commenter: Stowe Electric.
From: Michael Lazorchak
Sent: Wednesday, August 18, 2021 8:29 AM
Subject: RE: Clean Energy Development Fund.

Andrew:

Some quick points for your consideration as you continue to think about the clean energy development fund. Stowe Electric would like to pursue the following projects:

- A behind the meter solar project that can be offered to low and moderate income customers as a community solar project. Stowe is analyzing the addition of 50kW-100kW solar at our operations facility that would provide a good option for this project.
- The modernization of Stowe Electric's small hydro generation plan at Moscow Mill. Stowe is undergoing a feasibility study to determine how much electricity could be generated at the location. Initial reports suggest 500kW to 1MW of generation from this facility. This project could also be rolled into a community solar/renewable generation project to allow low to moderate customers or renters to purchase renewable generation.

If you have any questions or need anything from Stowe to support your work, please let me know.

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August 18, 2021

Andrew Perchlik
VT Public Service Department
112 State Street
Montpelier, VT 05620-2601

Re: Request for information regarding the design and implementation of an Affordable Community-Scale Renewable Energy Program

Dear Mr. Perchlik:

VPPSA appreciates this opportunity to provide feedback on the Department of Public Service's (Department) Request for Information (RFI) regarding the design and implementation of an Affordable Community-Scale Renewable Energy Program (Program) for Vermont's electric customers. This funding presents an exciting opportunity for Vermont to reduce electricity costs for low-income customers at a time when electricity is becoming an increasingly clean and important source of energy for heating and transportation.

General Comments:

In VPPSA's view, this program should be designed to maximize the financial benefits to low-income customers quickly in order to manage long-term electric costs. This is consistent with the value VPPSA members already place on affordability of electric service. On average, VPPSA member utilities offer residential rates that are 11.3% lower than what the typical Vermonter pays.

Providing the most value to customers will necessitate a program that minimizes administrative cost and burden. Administrative efficiency will be best served by building on existing structures and utilizing the unique skill set of each entity involved. Third party contractors should only be utilized if there is expertise that the state agencies or the distribution utilities lack. Because the program relies on the electric utilities to distribute benefits to customers, input from the state's distribution utilities (DUs) will be essential to designing an efficient and well-functioning program.

VPPSA's preliminary analysis estimates that between 2,200 and 5,300 customers could be provided the 20% to 50% of energy usage contemplated in the Department's proposed Program. (These estimates are based on the costs to develop solar projects and are for illustrative purposes). It is also appropriate to consider technologies other than solar in the Program. Because we know there are many more low-

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income households in the state, the Department and stakeholders should strive to design a replicable program at the lowest cost feasible.

Responses to Specific Questions about the possible Program components & Metrics:

1. Which of these program components should be the primary goals of the Program? Which are the most important?

The overarching goal of the proposed Program should be a significant reduction in energy costs for low-income electric customers. Program design decisions should be made to maximize the flow of funds to eligible households. Achieving this goal will require an emphasis on the metrics of simple enrollment and minimizing administrative costs.

The Department should strive to develop a program that minimizes administrative costs and thus maximizes benefits to customers. Consideration of this metric must account for the administration costs incurred by utilities and, if applicable, the community action agencies that assist in program administration. Acknowledgement and inclusion of these utility costs will accurately reflect program costs. Compensating distribution utilities for their costs associated with the Program will prevent shifting costs on to non-eligible customers who may also be struggling to pay their energy bills.

Involving utilities in program design will help minimize overall administrative costs. This will require close, meaningful coordination with electric utilities, whose end use customers will be the ultimate beneficiaries of the Affordable Community-Scale Renewable Energy Program. To this end, a workshop with the states' distribution utilities to discuss program design and implementation would be appropriate and beneficial.

2. How should the Program weigh these program components when choosing among different proposed renewable energy.

Through this budget allocation, Vermont has made a significant commitment to energy affordability for those with low incomes. Maximizing the financial benefit to eligible households should be the top priority of this Program. Assigning a high weight to multiple metrics runs the risk of diluting the benefits to program participants. For example, while economic development is an ancillary benefit of renewable project development, benefits to Program recipients should not be sacrificed in order to maximize economic development.

It will be difficult to demonstrate greenhouse gas (GHG) reductions directly attributable to this program, given Vermont's renewable energy policy framework. New, community-scale renewable generators will

be Tier 2 resources under Vermont's Renewable Energy Standard (RES). It will be difficult to demonstrate that this program reduces GHG emissions beyond what is already required under the RES. The focus should be on delivering the financial benefits of renewable generation to low-income Vermonters.

3. Should there be goals regarding the siting of the renewable energy projects in the Program?

Rather than setting a goal for siting, a Program requirement should state that renewable energy projects will not be sited north of the Sheffield-Highgate Export Interface (SHEI) or in other grid constrained locations. When distributed renewable generation is sited in a manner that does not account for grid conditions, unnecessary costs are imposed on all Vermont electric utility customers. Consistent with our belief that the Program should maximize financial benefits to income-qualifying customers, VPPSA advocates for siting that avoids additional costs.

Vermont should take the lessons learned from the Standard Offer and Net Metering Programs and consider the grid impacts of proposed renewable projects under this Program. Utilities are already evaluating grid conditions and impacts when working with development partners to site renewable projects. Utility procurement would ensure appropriate siting and minimize overall costs to non-participating customers.

4. How should the Program be designed to collect the data needed for the evaluation metrics?

The primary evaluation metrics should be around Program participation. This data would be collected and reported through the distribution utilities and should be limited to metrics that utilities already have easy access to. Attempting to collect and quantify extensive amounts of data would likely add unnecessary program costs without commensurate benefit to program participants.
Due to privacy concerns, electric utilities should not be responsible for collecting income data; this responsibility should sit with the state agencies currently administering social benefits programs.

5. How should the Program identify and encourage participation of low-income Vermonters in the Program?

Maximizing enrollment in the Program will require comprehensive outreach and education efforts across multiple platforms. The state, distribution utilities, and low-income assistance programs will have roles to play in informing customers of this new Program. Organizations like the Economic Services Division of the Department of Children and Families, Weatherization Assistance Programs, and Low

Income High Energy Assistance Program (LIHEAP) will be critical partners in reaching eligible low-income electric customers. Customer education should be carried out through low cost channels with the highest likelihood of reaching the intended Program participants.

6. Should the Program have a specific goal to identify and encourage participation from under-served and under-resourced communities?

Income should be the primary eligibility criteria for the program and the program should strive to enroll as many customers as possible. Attempting to target specific subsets of the eligible population runs the risk of causing customer confusion and increasing program costs.

7. Should the Program have a goal to identify and encourage participation from Vermonters that are Black, Indigenous, or people of color?

The program should encourage broad participation throughout the low-income community. Identifying and segmenting communication efforts to ensure broad participation, including among the BIPOC community would be appropriate. Tying participation metrics or requirements to specific sub-segments of the populations would create the potential for reducing overall program benefits.

8. Which are the most important evaluation metrics of success for this Program?

The most important goal of the Program should be maximizing the funding that flows to low-income Vermont households. As such, the number of households served and administrative efficiency are the most important metrics for success.

Another important metric is geographic equity. The program should strive to enroll participants from all areas of the state and within all distribution utilities' service territories.

Finally, levelized cost and annual electric generation of the developed renewable energy generators should be considered as a metric of success for the program. This supports VPPSA's overarching belief that the Program should maximize renewable generation for the income-qualifying population while avoiding administrative costs and overhead.

<u>Comments/Questions on DPS' Straw Proposal:</u>

Several aspects of the Straw Proposal are unclear to VPPSA.

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What is meant by "The renewable energy from the selected project(s) would be sold to Vermont's electric distribution utilities at a discounted rate"? How would the discounted rate be calculated?

What is meant by "Any revenue collected by the Program would go towards covering administrative costs and for the development of additional renewable energy projects within the Program"? How would the program generate revenue?

It is unclear from the Straw Proposal how program benefits would flow to customers. If utilities were purchasing all of the output from projects under the Affordable Community-Scale Renewable Energy Program from the state and distributing it to enrolled customers, would there be a decline in individual benefits over time as more customers enrolled? How would excess generation from these projects be treated if there were not enough customers enrolled at the outset?

Responses to Specific Questions on the Straw Proposal:

1. What problems do you see with the straw Program proposal?

VPPSA's primary concern with the Straw Program Proposal is that the structure may be overly complex and would likely lead to unnecessarily high administrative costs that dilute the benefit to program participants. Having a contracted program administrator will add costs to this Program. It is unclear to VPPSA whether the central procurement would result in subsidized power entering each utility's power supply mix until sufficient customers entered the program, or whether it would require ongoing rebalancing of utility shares of the central contract. It seems more appropriate to have utilities develop needed projects and seek funding from the state as customers enroll. Greater administrative efficiency could be achieved by having the DUs, rather than the Department or a third-party contractor sign long-term fixed price contracts. Conversely, utilities should not be responsible for verification and enrollment as contemplated in the straw proposal.

2. What is the best mechanism to distribute benefits to participants statewide?

Each utility should be responsible for distributing benefits to its customers that are enrolled in the program through bill credits or reductions in the electric bill. It is unclear at this point whether each utility would need to adopt Tariffs or Tariff Riders to implement the program.

3. Other than price, what other project characteristics should be considered in the selection of projects?

Projects should be distributed across multiple distribution utility service territories and should not exacerbate existing grid constraints.

4. Is there a better eligibility for what qualifies for low-income? Should there be a design component that provides a greater benefit to the very-low income or those with very high energy burdens?

It is more cumbersome for customers to demonstrate energy burden than to demonstrate income eligibility. It is appropriate to use income as the sole eligibility criteria. Energy burden is more dynamic than income and is likely to change as existing efficiency utility and Tier 3 programs deploy and electrification accelerates.

5. How should the Program address any environmental attributes created by selected projects? For example, should the program require the retirement of renewable energy credits created by projects in the Program, or should they be sold or retired by participating utilities to maximize the economic benefit provided to participants.

It would be appropriate for utilities to retain and retire the renewable energy credits from these projects in compliance with state requirements. This treatment is consistent with the treatment of net metering RECs retained by utilities. This approach maximizes the financial benefit to participants while ensuring that these projects contribute to the state's renewability.

6. Should the Program include energy storage or smart grid components?

Not at this time. Incorporating storage and smart grid components to the program increases complexity and has the potential to slow deployment. These technologies are unlikely to reduce customer costs and will only serve to dilute the financial impacts of the program.

7. What other Program designs should the Department consider?

VPPSA urges the Department to design a program that leverages the unique strengths and expertise of each party involved. Utilities have expertise in power supply, procurement, and project development. As such, the DUs would be well-positioned to solicit projects and contract for the output. Vermont's social service agencies have expertise in serving low-income populations. Determining program eligibility and income verification are **not** responsibilities that should fall to the utilities. Similar to fuel assistance and

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other social benefits programs, this responsibility should sit with the state agencies that have access to income data for other purposes.

One strategy that should be considered is disbursing the funds on a pro rata basis to the states 17 distribution utilities for the development of community scale solar projects for their customers. This approach would avoid concerns around grid impacts of siting. Utilities could elect to jointly procure projects, but there should not be a mandate for statewide procurement.

Thank you for your consideration of these comments. VPPSA looks forward to collaborating with the Department on the design and implementation of an Affordable Community-Scale Renewable Energy Program for Vermont.

Sincerely,

Melissa Bailey
Manager of Government and Member Relations
Vermont Public Power Supply Authority

Clean Energy Development Fund

Request for Information Response
Submitted by VGS

Program Title: Community Based Clean Heat Initiative for Low-Income Customers

Summary:

This proposal would encourage community partnership with VGS to support local "Clean Heat" energy projects where low-income residents could meet their home heating needs using clean energy without having to pay the premium associated with renewable fuel. CED proceeds would be used to lock in renewable volumes for low-income customers at no additional cost to the customers, which, in turn, would support project viability.

The program would spur the creation of new Vermont-based Clean Heat projects, including: Renewable Natural Gas (RNG) produced at local farms, wastewater treatment plants, and industrial food waste digesters; Green Hydrogen created from excess solar and wind electricity; utility-scale geothermal projects; district energy; or a combination of these renewable energy sources.

VGS just commissioned Vermont's first RNG digester in Salisbury in July, in partnership with Vanguard Renewables and Middlebury College. VGS serves many communities who share a commitment to aggressive climate goals. We believe this program would support these communities' goals as they seek to reduce emissions from existing heat sources and bolster long-term efforts to create a sustainable supply of homegrown energy.

Background:

In 2019, VGS announced a plan to become NetZero by 2050. These are among the most aggressive climate goals for a gas utility nationwide. Near-term strategies to achieve our goals include development of Clean Heat projects in partnership with municipalities, and to increase our RNG supply to 20% by 2030. We were the first gas utility in the nation to offer a RNG retail tariff in 2018, and we now have PUC approval to add 2% additional RNG each year as part of our recently approved Alternative Regulation Plan. We are currently working with partners to develop farm cluster, municipal waste, and industrial food digester projects that will produce local RNG. We are also in the process of assessing the feasibility of other Clean Heat projects, including Green Hydrogen, geothermal projects, and district energy. We believe these CED dollars would help drive more homegrown Clean Heat projects to benefit low-income Vermonters in key communities as the state makes progress toward its climate goals.

1. ***Program Goals***
   The goal of this program would be to engage one or more communities in a project to develop homegrown Clean Heat Projects at no additional cost to any low-income customer in those

municipalities or throughout VGS footprint. VGS has roughly 1,100 customers on our low-income rate. These customers receive a 20% discount on their natural gas service. The CED funds could be used to purchase renewable credits specific to the locally-developed Clean Heat project, which would serve as a known revenue stream to support the project's implementation. The renewable credits could effectively offset a low-income customer's entire carbon footprint related to thermal. The metrics for the program could include Low-income customers participating (# and %), total volume of RNG/clean heat consumed, investments leveraged ($ of investment), and GHG/carbon reduction (overall and per household). We can also report on Energy Burden reductions, number of households with black, indigenous and Vermonters of color, and other criteria that the CED program requested.

2. ***ARPA Eligibility***
   We believe this program will address the low-income and the community-based criteria, as well as other ARPA guidelines that will be addressed in the final program development.

3. ***Straw-Program Design***
   Step 1: VGS would solicit community partners, consistent with the stated goals of the Affordable Community-Scale Renewable Energy Program and CED.

   Step 2: VGS would issue an RFP for a Clean Heat project/developer in that community, including the estimates of private investment committed to the project. Of note, we have several project concepts that would be strong candidates.

   Step 3: VGS would select a project in conjunction with the serving community.

   Step 4: Once the project was permitted, constructed and online, VGS would begin issuing credits using CED funds to the low-income customers in the community. We would also use the project as a pathway to reach low-income customers and encourage more enrollment in existing weatherization programs.

   Step 5: VGS would report annually on our progress and metrics. VGS will also retire all of the Renewable Attributes (i.e.: RECs) associated with the Clean Heat delivered to these customers.

   Step 6: VGS would transition these customers to a similar Clean Heat discount program once the ARPA funds has expired, subject to PUC approval.

Contact Information:

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August 18, 2021

Andrew Perchlik
Vermont Department of Public Service
112 State Street
Montpelier, VT 05620-2601
Transmitted via Email to: Andrew.Perchlik@vermont.gov

Re: Response to Affordable Community-Scale Renewable Energy Program Request for Information (RFI).

Dear Mr. Perchlik:

Thank you for the opportunity to comment on July 19, 2021 Request for Information (RFI) relating to the design and implementation of Affordable Community-Scale Renewable Energy Program (ACSREP). Vermont Electric Cooperative (VEC) offers these comments from a position of experience in developing and managing VEC's Co-op Community solar program for the past five years. In cooperation with private project development partners and our member subscribers, the VEC Co-op Community Solar program currently includes three well-sited community scale projects with over 20% of the panel capacity sponsored by 220 VEC members.

VEC has a direct interest in the success of the ACSREP since VEC service territory contains eight of the ten towns, and three of the five counties, with the greatest energy burden in Vermont as identified in Efficiency Vermont's 2019 Vermont Energy Burden Report. The appropriation of $10 million dollars statewide to welcome income-qualified Vermonters into the renewable energy future is a unique opportunity that we are committed to supporting.

As you make final decisions about allocation of these funds, we urge you to focus on these three primary priorities.

1. **Maximize the amount of the appropriated dollars that will directly benefit income-qualified Vermonters**.
   Maximize the amount of funds that are put towards bill credits for income-qualified electric users. Minimize the amount of funds for project development or administrative costs.

2. **Deploy the funds as soon as possible.**
   Utilize new "shovel ready" renewable projects that are already sited and permitted, but not yet commercially operational as of July 1, 2021 (the effective date of the Appropriation legislation). Don't wait to find and develop sites that will delay the deployment of funds to income-qualified Vermonters who continue to struggle to pay their bills. These funds will do most good the sooner they are allocated.
3. **Do not require other Vermonters who may also be financially struggling to have to pay more because of the ACSREP.**

Use the ARPA money to help Vermonters who need assistance. Don't require Vermont utilities to contribute additional ratepayer dollars towards the program since ratepayers who do not qualify or are not able to secure a spot in the ACSREP, also are experiencing financial strain right now.

We understand that there are other important and complementary goals that should be considered as part of this program, but we believe the three outlined above are most important and most supportive of the legislated goals.

What follows is a specific VEC proposal followed by responses to the specific questions outlined in the RFI. VEC can provide detailed information on the structure of our existing Community Solar Program as may be helpful. Much of that information is available on our website: https://vermontelectric.coop/co-op-community-solar

VEC Proposal

VEC believes that the best way to meet the priority goals is for some or all of the ACSREP funds to be utilized for new renewable energy projects that were permitted, but not yet commercially operational, as of July 1, 2021. These new projects would expedite program launch and implementation and ensure that more of the allocated funds would be available to those that need assistance as soon as possible. Distribution utilities that do not have a new "shovel ready" local renewable project available can either individually or join as a group to develop an alternative project as generally outlined in the RFI.

The benefits of this approach include:

- **Accelerated start date.** Instead of 2-3 years, support for many eligible participants can start immediately.
- **More dollars going directly to Vermonters who need support.**
  For example, allowing VEC to utilize a new local renewable project that is being operated under PPA with a private partner would allow 100% of the dollars allocated to VEC members to be used directly to enroll members in ACSREP, maximizing bill credits to them.

Overall program design:

- Equitably allocate the $10 million to each Vermont distribution utility based on load. Contribution share to the EEU is a simple way to determine allocation.
- Each utility then identifies a new renewable energy project (must not have been commercially operational prior to July 1, 2021) from which they will purchase or generate energy and enroll their income-qualified customers in panel sponsorship. The new renewable energy project could be a local distribution utility project or a shared group project in any service territory.
- Each distribution utility will work with the state agencies and local community action agencies to identify and enroll households in their program.
- Participants will receive solar bill credits of $50 per month throughout the 10-year life of the program. This would total $600 in annual bill credits per household, or $6000 in bill credits per household over the life of the 10-year program.
  At this bill credit level, the $10 million appropriation (without subtracting any administrative costs) could offer 1,667 Vermont households meaningful electric bill support for 10 years.

- If preferred, bill credit levels could be lowered to accommodate more households with lower credits or increased with higher bill credits for fewer participants. Minimizing administrative costs would allow support for more households under all scenarios.
- Each distribution utility will either generate or purchase their share of the renewable energy at market-based rates. For example, in the outlined scenario, each utility will procure $50 monthly of renewable energy from their designated project for each program participant in their utility.
- If a participant moves out of the service territory or is no longer income-qualified, the distribution utility can easily substitute the next eligible customer to replace the original participant for the remainder of the 10-year term.
- Each distribution utility is compensated for their bill credit share from the state appropriation.

VEC sees this as a simple and beneficial path forward for the ACSREP and respectfully requests that VEC's share of the ACSREP dollars be permitted to be used this way. The project will be successful if we can offer financial relief for a significant number of our lower-income and energy insecure members while engaging them in the transformation towards a cleaner energy future.

Responses to specific questions

Draft Program Components & Evaluation Metrics

1.Provide a reduction of 20% to 50% in participating low-income customer's monthly utility bills.
o Evaluation Metrics: Number of low-income households served, income level of households served, level of energy burden of households served, amount of monetary assistance provided annually, $ per participant/yr., and % discount for the average participant.

A simple and relevant metric would be the # of income-qualifying households that obtain meaningful assistance. We recommend a set and consistent dollar amount per household for clarity and ease of (bill credit) implementation. $50 per household per month for up to 10 years would make a meaningful difference to most households, and in many cases would provide a 50% reduction in their monthly bills.

2. Include a funding mechanism that would allow the Program to receive funds for the development of additional renewable energy projects in the Program beyond the $10 million of ARPA funds.
o Evaluation Metric: Was such a mechanism established and is it generating sufficient revenue to develop additional projects**?**

We do not have recommendations for a funding mechanism for ongoing program development. VEC viewed ACSREP as a one-time special allocation and setting up a program to ensure effective use of those dollars is the priority right now. If the program proves to be effective, it can be expanded or replicated as additional funding opportunities become available.

3. Reduce greenhouse gas (GHG) emissions from energy generation.

While this is a critical in all we do, this goal will be best met if we ensure well-sited and well-designed projects. This should be part of the permitting process for any projects not yet sited and should weigh into program design.

4. Increase social equity.
o Evaluation Metrics: Energy burdens of participants related to state average; number of households of black, indigenous, and Vermonters of color participating – total and as %, $ and % of cost savings

for these households compared to participant averages; number of renters vs. homeowners served; number of participants from underresourced communities.

The eligible participants will be income qualified so income equity is a core component of basic program design. We recommend that other diversity and inclusion goals can be incorporated into a comprehensive and thoughtful outreach strategy in cooperation with our local community partners.

5. Have equitable geographic distribution of participants.

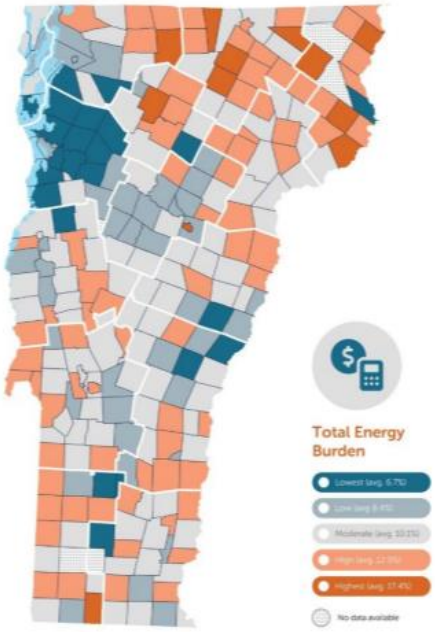
o Evaluation Metric: geographic location of participants, updated annually.

The ideal program would ensure participation distribution that is based on % of households with the highest energy burden in each utility service territory. Unfortunately, since distribution utility service territories do not track neatly along town lines, and to maintain administrative simplicity, we support distribution based on an existing and commonly used distribution method such as each utility Energy Efficiency Charge contribution to the Energy Efficiency Utility. Perhaps there could be an adjustment or adder to this distribution starting point to support towns with the highest total energy burden.

Table 2. Highest burdened Vermont towns

Town	Median Household Income	Electricity Spending	Thermal Spending	Transportation Energy Spending	Total Energy Spending	Total Energy Burden
Lemington	$26,094	$919	$1,804	$2,569	$5,292	20%
Irasburg	$35,446	$1,234	$1,990	$2,583	$5,807	16%
Johnson	$36,833	$1,208	$2,232	$2,577	$6,017	16%
Troy	$38,152	$1,137	$2,129	$2,586	$5,852	15%
Lunenburg	$36,125	$1,028	$2,020	$2,469	$5,518	15%
Barre City	$35,225	$1,110	$1,965	$2,227	$5,302	15%
Morgan	$35,000	$675	$1,910	$2,647	$5,232	15%
Brighton	$34,737	$768	$1.958	$2,465	$5,191	15%
Albany	$35,268	$1,013	$1,585	$2,636	$5,234	15%
Montgomery	$41,513	$1,042	$2,263	$2,806	$6,111	15%
Readsboro	$35,625	$1,019	$1,598	$2,616	$5,234	15%
Granby	$33,125	$797	$1,501	$2,558	$4,856	15%
Vermont	*$57,513*	*$1,150*	$2,050	*$2,638*	*$5,837*	*10%*

Source: 2019 Efficiency Vermont Energy Burden Report



6. Coordinate with existing low-income energy assistance programs.

o Evaluation Metric: Survey results with participants, low-income advocates, and representatives of assistance programs.

A successful program will necessitate close cooperation with the entities that provide direct assistance to the income-qualified community as a core part of program design. VEC has collaborated with the three Community Action agencies on grant proposals for an income-qualified "VEC Community Solar Invitation" program which is similar in many respects to ACSREP. The proposal involved the Community Action Agencies consulting with VEC on final program design and helping to identify and prioritize program participants based on final income eligibility criteria. The agencies and the approximate relative percentage of VEC members in each of their service territory include Champlain Valley Office of Economic Opportunity (67 percent), Northeast Kingdom Community Action (21 percent), Capstone Community Action (12 percent).

7. Be simple and easy for those eligible to enroll.
o Evaluation Metrics: Time it takes to enroll; % of enrollments vs. total amount eligible; # of complaints and results of participants surveys.
This should also be a core program component but should not involve a specific evaluation metric aside from qualitative feedback.

8. Provide economic development from the installation and operation of renewable energy plants in Vermont.
o Evaluation Metric: Economic development impacts in dollars (state and local to the project area) and in sector market development.
Helping people to pay their bills over a ten-year period will have direct economic benefit to local households and supports spending in the local economy which results in an economic multiplier effect. In addition to this highest priority long-term economic benefit, the shorter-term economic benefit from the development of community scale projects is important to track and document.

9. Leverage other funds to the greatest extent possible.
o Evaluation Metric: Ratio of dollars expended, and dollars leveraged.
Leveraging additional funds would be beneficial but is not a top tier goal. The higher priority goal, and the metric we recommend, is to maximize the direct benefit to the income-qualified households, whether by maximizing the amount of the appropriated dollars providing a direct benefit or by leveraging additional dollars if this does not involve a cost shift to other ratepayers. In the proposal offered by VEC, 100% of the appropriated funds would go to directly benefit income-qualified participants with no cost shift to other ratepayers.

10. Minimize the amount of funds spent on administration.
o Evaluation Metric: Ratio of total dollars expended to dollars spent on administration.
We agree this is a high priority metric that can be easily tracked as suggested here.

Specific Questions the possible Program components & Metrics:

1. ***Which of these program components should be the primary goals of the Program? Which are the most important?***

- Maximize the amount of the appropriated dollars that will directly benefit income-qualified households.
- Deploy the funding as soon as possible.
- Design program so there is not a cost shift to non-participants.

2. ***How should the Program weigh these program components when choosing among different proposed renewable energy.***
   We believe the three recommended top priorities are all achievable and don't require differential weighting.

3. ***Should there be goals regarding the siting of the renewable energy projects in the Program?***
   The proposal we outline could include new projects that have obtained permits prior to July 1, 2021 but were not yet operational. If new sites are being considered for permitting and

operation it is essential that these are well sited in accordance with the VELCO system constraint map so as not to exacerbate the SHEI constraint problem.

4. ***How should the Program be designed to collect the data needed for the evaluation metrics?***
The evaluation metrics should be simple and not add cost and complexity to any program design. The Program should be designed modeled on VEC's Cooperative Community Solar program with a market based priced PPA, no cost shift to non-participants, set panel credits, and simple bill credit administration.

5. ***How should the Program identify and encourage participation of low-income Vermonters in the Program?***
The State of Vermont now has considerable experience reaching out to the income-qualified community due to the variety of COVID assistance programs targeted to this community. There are numerous potential partners that can help identify and encourage participation of income-qualified Vermonters including the local Community Action Agencies and the participating distribution utilities. All these entities have mailing lists, phone lists, email lists, and a variety of outreach tools (newsletters, social media, and bulk text, email and call systems) that can be utilized. We expect there will be more applicants then there is opportunity and expect the program to fill quickly.

6. ***Should the Program have a specific goal to identify and encourage participation from under-served and under-resourced communities?***
If the program design stays focused on supporting those with the highest energy burden that goal will be achieved.

7. ***Should the Program have a goal to identify and encourage participation from Vermonters that are Black, Indigenous, or people of color?***
We believe that the outreach strategy should be thoughtfully developed and implemented with key community partners to ensure equitable opportunity, diversity and inclusion of program participants.

8. ***Which are the most important evaluation metrics of success for this Program?***
-Maximize the amount of the appropriated dollars that directly benefit income-qualified households.
-Deploy funding as soon as possible.
-Design program so there is no cost shift to non-participants. (No additional costs to utility rate-payers).

Department Straw Program Proposal

There are many good components included in the Department straw proposal. We agree the program should be community scale, market-based priced, and managed through the local distribution utilities. Specific comments on some of the identified items:

1. **An RFP for new renewable energy projects. The Department, possibly through a third-party contactor, would sign a long-term fixed-price contract for the energy produced by the project(s).**
   We recommend that distribution utilities that have new projects or PPA's for projects that were not commercially operational prior to July 1, 2021 be allowed to use those projects for their (ACSREP) share. We also believe that the distribution utilities that do not currently have projects can work together, without incurring the cost of a third-party contractor, to procure any needed new renewable energy.
2. **Projects would be selected based on price of energy delivered as well as the other goals of the Program and feasibility of the proposed project.**
   Agree.
3. **The renewable energy from the selected project(s) would be sold to Vermont's electric distribution utilities at a discounted rate. The utilities would use this low-cost renewable energy to credit participating customers' bills to lower the customer's energy costs.**
   As stated, VEC would like to be allowed to use a new, local, shovel ready renewable project for our member sponsorships. That said, it is not entirely clear in the flowchart or proposal what a discounted rate means or how the costs/payments would flow. VEC would not support incurring the cost of both procuring the renewable energy and the cost of providing bill credits to participants. This would not be a fair or sustainable model. Additionally, in our opinion the appropriation of the ACSREP dollars was not intended to require additional expenditures from the other rate-payers in the state. We support the ACSREP fitting in with the current systems and administrative models in place at the distribution utilities.
4. **Eligibility for the bill credits would be limited to low-income households defined as those with incomes less than 80% of the State-wide median income level based on household size (*current median income for a two-person household in VT is $67,300*).**
   There are many options for eligibility thresholds and ideally the threshold will be consistent with other operating programs. For ACSREP it might be best to parallel and integrate with other active programs run by the community action agencies for fuel or food assistance.
5. **The utilities, working with the State and other partners would identify low-income households as well as those that meet other goals of the Program to participate. The utilities would enroll these eligible customers into the Program and provide a credit on the participating customer's monthly bill. a. How the utilities offer, enroll, and unenroll customers in the Program under the Public Utilities Commission's rules and regulations needs to be determined.**
   Income-qualified household can be offered opportunity to enroll in the program with the support of their respective local Community Action Agency and distribution utility. These entities work closely throughout the year to support income-qualified Vermonters with paying bills and obtaining fuel assistance. Program enrollment can be a very simple process and can use VEC's Co-op Community Solar program enrollment and administration as a model. https://vermontelectric.coop/co-op-community-solar
6. **The renewable energy credits (RECs) created by the renewable energy generated may be sold or retired by the utilities to reduce the cost and/or meet regulatory requirements while maximizing the financial benefit available to the Program participants.**
   We recommend that the utility that is purchasing the energy receive and retire the RECs used for the ACSREP to ensure that the renewable attributes of the energy are maintained.
7. **Any revenue collected by the Program would go towards covering administrative costs and for the development of additional renewable energy projects within the Program.**

It is unclear from the straw proposal what revenue might be collected.

Specific Questions on the Straw Proposal:

1. What problems do you see with the straw Program proposal?

As outlined above, we do not believe the intent of the appropriation was for distribution utility ratepayers who are not participating in the program to incur additional costs to support the program. It is unclear from the straw proposal how that result would be achieved.

We recommend that the straw proposal be updated to clarify that distribution utilities can implement the ACSREP program for their qualified members, within their share of the appropriation allocation, through their own new renewable energy procurements. This would ensure that the administrative costs would be minimized and the support for the income-qualified participants would be maximized.

2. What is the best mechanism to distribute benefits to participants statewide?

The best mechanism would be for the state to distribute funds to the distribution utilities who would in turn administer the bill credits.

3. Other than price, what other project characteristics should be considered in the selection of projects?

In addition to price the other project characteristics should be projects that are shovel ready and well sited.

4. Is there a better eligibility for what qualifies for low-income? Should there be a design component that provides a greater benefit to the very-low income or those with very high energy burdens?

As discussed above, for administrative simplicity and cost it would be best to set a clear and well-defined income threshold that mirrors with other active programs.

5. How should the Program address any environmental attributes created by selected projects? For example, should the program require the retirement of renewable energy credits created by projects in the Program, or should they be sold or retired by participating utilities to maximize the economic benefit provided to participants.

As stated above, utilities should obtain and retire the RECs used for the ACSREP.

6.Should the Program include energy storage or smart grid components?

We appreciate storage and smart grid as potential program goals, but since these are new and emerging systems this could add time, cost, and complexity to the program. The primary goal must be in support of income-qualified Vermonters.

7. What other Program designs should the Department consider?

Please see VEC's program proposal starting on pages 2-3.

Additional recommendations

-For simplicity and clarity, we recommend setting a consistent 10-year program term. In VEC's Co-op Community Solar program most applicants opt for the 10-year over the 20-year option.

-The distribution utilities do not have access to income information, so we suggest a self-certification and audit system like is being used for arrearage grant assistance programs currently running, or third-party review and approval of income disclosures.
- There may be some benefit to creating a centralized application portal so that participants would have one point of entry and then be immediately directed to their respective utility, but a statewide portal is not a necessity if it would add to administrative costs.
- We recommend that the distribution utilities that do not have a "shovel ready" project be able to collaboratively work together to develop and issue an RFP for a new renewable energy project. Utilities have expertise to do this in an efficient and low-cost manner and can identify preferable locations for grid efficiency. This will ensure well sited and cost-effective projects and maximize the amount of allocated funds that can go directly to income-qualified households.

Thank you for the opportunity to comment. We look forward to working with you as you proceed with this important program.

Sincerely,

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Two Rivers-Ottauquechee
REGIONAL COMMISSION

Andrew Perchlik
VT Public Service Department
112 State Street
Montpelier, VT 05620-2601

Dear Mr. Perchlik,

Thank you for the opportunity to comment on the Department of Public Service (the Department) request for information (RFI) regarding the Affordable Community-Scale Renewable Energy Program (Program). The Two Rivers-Ottauquechee Regional Commission (TRORC) is pleased that Vermont is utilizing American Recovery Plan Act (ARPA) funding in this creative way, providing financial assistance to Vermonters with low-income, while simultaneously furthering the state's energy and climate goals and meeting environmental justice and equity objectives. TRORC urges the Department to consider the two key recommendations below in order to maximize the benefits of this opportunity.

1. A portion of the funding should be used to support ownership of local, renewable energy resources among Vermonters with low-income. These Vermonters have largely been shut out of the critical transition to clean, renewable energy and the substantial benefits that come with owning these resources. Bill credits may be the best option for some Program participants, but the Program should strive to encourage and enable direct ownership by participants by significantly, or even completely, buying down the cost of the array(s).
2. Participants should be empowered to choose how to treat the renewable energy credits (RECs) from the Program. To some, maximizing the financial benefit of participation may be the top priority, and selling the RECs or allowing the utility to retire them may be the best option. To others, using renewable energy and/or playing a direct role in mitigating greenhouse gas emissions may be a top priority in addition to saving money. These participants should be allowed to keep and retire the RECs.

These two recommendations are fleshed out further below in response to some of the specific questions posed by the Department's RFI. Text from the RFI is italicized and in quotations for clarity. TRORC has chosen not to address some of the metrics/questions included in the Department's RFI, and these metrics/questions are therefore not shown in these comments.

<u>Draft Program Components & Evaluation Metrics</u>

The Department's Proposal: *"1. Provide a reduction of 20% to 50% in participating low-income customer's monthly utility bills.*

o Evaluation Metrics: Number of low-income households served, income level of households served, level of energy burden of households served, amount of monetary assistance provided annually, $ per participant/yr., and % discount for the average participant."

TRORC's Response: The "amount of monetary assistance provided annually, $ per participant/yr., and % discount for the average participant" metrics demonstrate a focus on a 3rd party investor-owned model. These metrics could be changed to "amount of monetary savings provided annually, $ per participant/yr. in savings, and % reduction in electricity bills for the average participant" to allow for

an ownership model, wherein assistance would be provided in the form of a one-time grant to buy down the cost of ownership, and participants would realize savings through solar ownership.

The Department's Proposal: *"3. Reduce greenhouse gas (GHG) emissions from energy generation.*
o Evaluation Metrics: Tons of GHG emission reduced per $ expended and tons of GHG emission reduced."

TRORC's Response: This metric is critical. However, there should be a separate metric for tons of GHG emissions reduced **by participants** (i.e., enable participants to retire RECs from the Program and track REC retirements on behalf of participants) in order to evaluate the direct environmental benefit of the Program to participants.

The Department's Proposal: *"4. Increase social equity.*
o Evaluation Metrics: Energy burdens of participants related to state average; number of households of black, indigenous, and Vermonters of color participating – total and as %, $ and % of cost savings for these households compared to participant averages; number of renters vs. homeowners served; number of participants from under-resourced communities."

TRORC's Response: GHG emissions reduced on behalf of participants should be an additional metric for increasing social equity. Participants should have the option to retire their RECs and not be required to give RECs to the utility or sell them out of state. Earlier net-metering programs did not penalize participants for retaining the RECs from their solar arrays, and most net-metering participants have historically been wealthier Vermonters. This program should not only lower energy burden, but also increase access to the renewable and environmental attributes of solar power for Vermonters with low-income.

<u>Specific Questions about the possible Program components & Metrics:</u>

The Department's Question: *1. Which of these program components should be the primary goals of the Program? Which are the most important?"*

TRORC's Response: Bill assistance is important, and provides needed relief for Vermonters struggling with energy burden. However, these one-time funds are a critical opportunity to assist low-income Vermonters in *owning* renewable energy. Ownership increases the wealth, long-term savings, and control over energy resources that participants gain from this program. Bill credits may be the best option for some, but a strong focus should be placed on helping participants get the most out of renewable energy through ownership. In this same vein, allowing participants access to the environmental attributes of the community array(s) should be prioritized. If the RECs are given to the utility or sold out of state, the participants are not using renewable energy or reducing their emissions and therefore only indirectly contributing to the mitigation of climate change.

The Department's Question: *"7. Should the Program have a goal to identify and encourage participation from Vermonters that are Black, Indigenous, or people of color?"*

TRORC's Response: Yes. A 2019 study published in *Nature Sustainability* found wide disparities in the adoption of solar between majority white communities and majority Black and Hispanic communities.

The study even controlled for home ownership, rates of which are significantly lower for people of color, which could have explained some of the inequity. The Program, therefore, should seek to address this disparity and must not assume that it will reach Vermonters that are Black, Indigenous, or people of color without a particular focus on this population.

Straw Program Proposal

The Department's Question: *"1. What problems do you see with the straw Program proposal?"*

TRORC's Response: While the proposal may be the least-cost option for developing community solar arrays, it limits the benefits of participants to a bill credit on their electricity bill. Participants will not have an opportunity to own a share of an array, which could most importantly increase wealth, but also increase engagement with the source of their energy and the benefits of renewables. Simply providing bill credits also limits the direct financial benefits of the Program to participants. Owning a share of the array enables participants to receive the full value of the output of the array, and long-term savings would likely be significantly greater. Further, ownership puts more control in the hands of the community, empowering members to make decisions related to the long-term success and operation of the array.

Additionally, the straw Program proposal appears to give the Department sole discretion in the treatment of the RECs generated by the arrays. As written, the proposal suggests that this decision will be made to maximize the financial benefit to Program participants. This is troubling given that the Program would only be a community solar program if the RECs are retired on behalf of participants. Otherwise, it becomes an electric assistance program, with the renewable energy used either to meet in-state or out-of-state regulatory requirements.

The Department's Question: "*3. Other than price, what other project characteristics should be considered in the selection of projects?"*

Community support, as demonstrated through the action of town Selectboards and Planning Commissions, and/or letters from residents and local organizations. Additionally, and related, the level of engagement with the target community should be considered in the selection process, as evidenced by the number of residents expressing interest in the project and/or a demonstration of successful past projects engaging with residents that would qualify as low-income under the Program requirements.

The Department's Question: "*5. How should the Program address any environmental attributes created by selected projects? For example, should the program require the retirement of renewable energy credits created by projects in the Program, or should they be sold or retired by participating utilities to maximize the economic benefit provided to participants."*

TRORC's Response: Ideally, participants should have the option to keep their share of RECs and choose what to do with them, as net-metering customers were allowed to do prior to the 2017 rule changes. Since the net-metering program has historically benefited more affluent Vermonters, the Program should strive to not only provide a financial benefit to participants, but also give participants the same discretion about REC treatment that (generally) wealthier net-metering customers once

had. The second-best option would be to require the retirement of RECs from the Program. As noted above, allowing the utilities to retire the RECs or selling them means that the Program is not a community solar program. At the very least, should the Department choose to sell the RECs or retire them on behalf of the utilities, the treatment of the RECs should be made explicit and be clearly disclosed to all Program participants before they join the Program.

The Department's Question: *"6. Should the Program include energy storage or smart grid components?"*

TRORC's Response: Only when the energy storage or smart grid components directly benefit Program participants. For example, providing participants with in-home battery storage would be a direct benefit, while deploying large-scale, utility-owned battery storage would be only an indirect benefit and should not be considered.

The Department's Question: *"7. What other Program designs should the Department consider?"*

TRORC's Response: The Department should consider setting aside a percentage of the funding to provide grants to eligible participants to significantly buy down the cost of developing an array that will ultimately be owned by a group of participants. Local community organizations, such as Community Action Agencies, Energy Committees, and in the TRORC region, the Intermunicipal Regional Energy Coordinator program, could do outreach to residents and facilitate the development of community-owned arrays.

Sincerely,

Peter G. Gregory

Peter G. Gregory, AICP
Executive Director
TRORC

August 18,2021
Mr. Andrew Perchlik
Vermont Public Service Department
112 State Street
Montpelier, VT 05620-2701

Re: (RFI) regarding the design and implementation of an Affordable Community-Scale Renewable Energy Program

Dear Mr. Perchlik:

Renewable Energy Vermont ("REV") thanks the Public Service Department (PSD) for the opportunity to comment on the CEDF Affordable Community-Scale Renewable Energy Program RFI.

Comments on Draft Program Components & Evaluation Metrics

1. Provide a reduction of 20% to 50% in participating low-income customer's monthly utility bills.

REV COMMENT: REV strongly suggests that the metrics and eligibility criteria selected be readily available and easy to monitor. While not stated, REV would encourage the PSD to ensure there is no participant income cliff and benefits can be modulated around the 80% MI threshold.

With respect to target discount, there needs to be a balance between a high bill reduction target (which is likely to exhaust the appropriated funds more quickly) and the number of LI customers that might have access to such bill reductions.

2. Include a funding mechanism that would allow the Program to receive funds for the development of additional renewable energy projects in the Program beyond the $10 million of ARPA funds.
   - Evaluation Metric: Was such a mechanism established and is it generating sufficient revenue to develop additional projects?

REV COMMENT: REV agrees with this selected metric. One thing that has been done in other states in the northeast, particularly MA and NY, is placing a nominal fee per unit (kWh) of energy consumed on all Vermonters' electric bills that are not low-income. This could generate a steady source of funds that can be redirected to provide long term discounts to LI Vermonters.

Additionally, to maximize the reach of the program - Section 248 of Vermont Law, commonly known as 'Certificate of Public Good' (CPG) comprises a long and expensive process in the development cycle for renewable energy projects in Vermont. REV recommends providing special consideration to renewable energy projects that participate in the LI program such that projects are able to expedite their CPG process in an effort to lower costs and provide more benefits.

3. Reduce greenhouse gas (GHG) emissions from energy generation.
   - Evaluation Metrics: Tons of GHG emission reduced per $ expended and tons of GHG emission reduced.

REV COMMENT: REV believes GHG reductions (utilizing peer reviewed methodologies based on ISO NE lbs/kWh) calculated with respect to the actual power generation offset is a valuable metric.

4. Increase social equity.
   - Evaluation Metrics: Energy burdens of participants related to state average; number of households of black, indigenous, and Vermonters of color participating – total and as %, $ and % of cost savings for these households compared to participant averages; number of renters vs. homeowners served; number of participants from under resourced communities.

REV COMMENT: REV supports the inclusion of all of these metrics, but encourages the CEDF to base criteria and evaluation on data that is already collected or easy to collect through existing channels.

5. Have equitable geographic distribution of participants.
   - Evaluation Metric: geographic location of participants, updated annually.

REV COMMENT: REV supports this provision and additionally encourages the PSD to encourage the development of multiple projects with geographic and system size diversity.

6. Coordinate with existing low-income energy assistance programs.
   - Evaluation Metric: Survey results with participants, low-income advocates, and representatives of assistance programs.

REV COMMENT: To provide low-cost administration and maximize reach, REV supports the coordination with low-income advocates.

7. Be simple and easy for those eligible to enroll.
   - Evaluation Metrics: Time it takes to enroll; % of enrollments vs. total amount eligible; # of complaints and results of participants surveys.

REV COMMENT: REV believes this is one of the most critical components of the program and ultimate participation.

Some states have Opt-out Community Choice Aggregation vehicle as a highly effective solution in enrolling customers. Opt-out programs enroll customers into a program without their express consent, while guaranteeing that they will always enjoy a financial benefit as long as they do not opt-out. The idea is an efficient method to enroll customers and give them the option to opt-out instead of deploying resources to get their express consent. Vermont's utilization of this will need to reflect the eligible population against the total openings to participate based on current funding.

8. Provide economic development from the installation and operation of renewable energy

plants in Vermont.

- o Evaluation Metric: Economic development impacts in dollars (state and local to the project area) and in sector market development.

REV COMMENT: REV believes this is a foundational component of all local renewable generation and agrees with its inclusion and is willing to support an accurate accounting of the economic benefits.

9. Leverage other funds to the greatest extent possible.
   - o Evaluation Metric: Ratio of dollars expended, and dollars leveraged.

REV COMMENT: In general, REV agrees that the leveraging of other funds is beneficial and should help maximize the net present value of the benefits.

10. Minimize the amount of funds spent on administration.
    - o Evaluation Metric: Ratio of total dollars expended to dollars spent on administration.

REV COMMENT: REV completely agrees and feels this reinforces the need to keep the metrics, the data, and the "billing" simple and aligned with current processes.

GENERAL REV COMMENTS ON THIS SECTION:

REV encourages the CEDF to include three additional components and evaluation metrics.

- The net present value (NPV) of savings to low-income Vermonters should be a key metric. Cumulative savings over 25 years should be evaluated from a NPV to ensure the savings are maximized.
- With the needs for low-income participation and benefits so large and grant funding so scarce, there should be an evaluation of the replicability of the proposed program to realistically meet demand.
- An effective way to ensure the economic and timely use of program funds is to have a criteria for eligibility for renewable energy projects to participate. For example, projects should have site control and an interconnection application in place with the local utility in order to apply to the Program.

Specific Questions the possible Program components & Metrics:

1. Which of these program components should be the primary goals of the Program? Which are the most important?

REV COMMENT: REV feels the most important attributes are NPV of benefits, GHG reductions (utilizing peer reviewed methodologies based on ISO NE lbs/kWh), and reductions in energy bills.

2. How should the Program weigh these program components when choosing among different proposed renewable energy.

REV COMMENT: The selection should be made based on the projects that score highest on the criteria listed and added to by previous REV comments.

3. Should there be goals regarding the siting of the renewable energy projects in the Program?

REV COMMENT: No. Additional layers will only add cost and there is an existing process for siting.

4. How should the Program be designed to collect the data needed for the evaluation metrics?

REV COMMENT: REV strongly believes that the program should leverage existing data to implement and evaluate the program.

5. How should the Program identify and encourage participation of low-income Vermonters in the Program?

REV COMMENT: Vermont has many great state agencies and other organizations focused on serving the low-income community. They all can help recruit and promote the final program.

6. Should the Program have a specific goal to identify and encourage participation from under-served and under-resourced communities?

REV COMMENT: Yes.

7. Should the Program have a goal to identify and encourage participation from Vermonters that are Black, Indigenous, or people of color?

REV COMMENT: Yes.

8. Which are the most important evaluation metrics of success for this Program?

REV COMMENT: REV feels the most important metrics are NPV of benefits, GHG reductions, and reductions in energy bill

Specific Questions on the Straw Proposal:

1. What problems do you see with the Straw Program proposal?

REV COMMENT: REV comments that the robust evaluation metrics of the program development seemed to be reduced to lowest cost per kwh in the straw proposal.

2. What is the best mechanism to distribute benefits to participants statewide?

REV COMMENT: REV believes the utilities are key allies and can help ensure that by utility and by county we can distribute benefits equitably based on percentage of low-income individuals by county.

3. Other than price, what other project characteristics should be considered in the selection of projects?

REV COMMENT: REV recommends utilizing the evaluation metrics outlined in the first section of the RFI (with suggested additions), that balance evaluation beyond simply the lowest price.

4. Is there a better eligibility for what qualifies for low-income? Should there be a design component that provides a greater benefit to the very-low income or those with very high energy burdens?

REV COMMENT: REV supports the concept, but recognizes that low income qualification beyond the standard 80% MI could be difficult to achieve and add burden to administrate.

5. How should the Program address any environmental attributes created by selected projects? For example, should the program require the retirement of renewable energy credits created by projects in the Program, or should they be sold or retired by participating utilities to maximize the economic benefit provided to participants.

REV COMMENT: REV believes the RECs should be available to the utilities to meet their requirements, however if the RECs are sold, any funds raised should be returned to the program to enable more low-income participation in renewable energy generation.

6. Should the Program include energy storage or smart grid components?

REV COMMENT: REV believes those are important elements to consider, but they should only be incorporated if they return additional direct benefits to the low-income community.

7. What other Program designs should the Department consider?

REV COMMENT: REV appreciates the issuance of the RFI and encourages the Department to review potential submissions for innovative, sustainable, and replicable designs.

Respectfully submitted,

Renewable Energy Vermont

August 17,2021

Mr. Andrew Perchlik
Vermont Public Service Department
112 State Street
Montpelier, VT 05620-2701

Re: (RFI) regarding the design and implementation of an Affordable Community-Scale Renewable Energy Program

Dear Mr. Perchlik,

Norwich Solar Technologies ("Norwich Solar") appreciates the opportunity to provide some general comments to the CEDF / PSD low income RFI.

We begin by thanking the Department for both securing these funds and looking for guidance on how best they can serve low-income (LI) Vermonters. While the funds are significant, we also recognize that the needs of low-income Vermonters can far surpass the available funds.

We offer the following general comments to reflect upon in the final design.

1. **Use existing data and delivery services where possible**
   To keep administrative costs low and to expedite benefits to LI Vermonters, Norwich Solar recommends existing LI qualification designation, billing systems, and LI services providers be leveraged and compensated to assist in delivery of benefits.

2. **Engage with low-income Vermonters and advocates to provide services they value most**
   Norwich Solar believes that direct feedback from the LI community can aid in ensuring a well-received program.

3. **Decide whether the broader evaluation metrics or cost per kWh is the primary objective**
   The developed evaluation matrix can potentially deliver greater value than price per kWh alone, and we encourage more discussion and outreach to assist in determining the right balance of objectives. For instance, a program providing lowest price per kWh that cannot be replicated, might be secondary in value to a slightly higher priced program that can be replicated.

4. **Evaluate proposals on the total net present value (NPV) of benefits delivered to LI Vermonters**
   Norwich Solar believes for accuracy and consistency a program's benefits should be measured from a NPV of benefits in 2021 dollars, versus cumulative savings over a 25-year time-period.

5. **Consider 10-20% set aside for onsite storage where vulnerable populations reside**
   One of the questions the RFI raised is whether storage should be a component of the program. Norwich Solar thinks that one unique benefit that distributed generation (DG) paired with storage can provide is greater resiliency for vulnerable communities in the wake of a changing climate. These services could include heating, cooling, and critical services to LI multi-family housing in rural areas that experience frequent outages and have few emergency-shelter options. It would be valuable to the state if some of the funds could assist and demonstrate the value to these communities.

6. **Evaluate proposals on the ability to be replicated without additional grant funding**
   While Vermont is fortunate to have these funds appropriated, funds to support LI programs are difficult to maintain. Norwich Solar strongly encourages that additional weight be provided to programs that can leverage these funds (with other funding) to ideally create the basis for a replicable program.

7. **Support the development of multiple projects across the state and utilities**
   To more closely connect the LI community to the generation projects they participate with, and to promote broader economic development, Norwich Solar recommends that multiple projects be selected across the state.

We thank you for the opportunity to comment.

Respectfully,

Jim Merriam
CEO

ELIZABETH MILLER
VP, Sustainable Supply & Resilient Systems

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August 18, 2021

Andrew Perchlik
Director, Clean Energy Development Fund
VT Public Service Department
112 State Street
Montpelier, VT 05620-2601

VIA EMAIL: andrew.perchlik@vermont.gov

Re: GMP Request for Information Response – Affordable Community-Scale Renewable Energy Program

Dear Andy:

Thank you for the opportunity to provide comments in response to the Department of Public Service (Department) Request for Information (RFI) regarding the design and implementation of an Affordable Community-Scale Renewable Energy Program (Program). Green Mountain Power (GMP) looks forward to working with the Department and our fellow distribution utilities (DUs) to support the creation of renewable energy projects for Vermonters with low income as set forth in the appropriation enabling this program.

Overview

GMP approaches this program development focused on helping more Vermonters access more renewable energy, more cost effectively. Our comments are structured with a few key goals in mind:

- Provide an opportunity for more income qualified customers to participate in renewable energy programs
- Provide a benefit to Vermonters with low income that matches or exceeds our current Energy Assistance Program (EAP)
- Minimizes negative impact on non-participating customers
- Minimize administrative burden and costs to maximize the benefits to low income Vermonters
- Deploy the funding as quickly as possible, using it directly for program participants
- Develop new distributed solar in Vermont

We note that the quickest way to deploy these funds to Vermonters who qualify would be to apply it to projects already in process or in operation. Given the desire to also aid economic development through new project construction, developing a select number of larger projects with the fewest

obstacles to construction and operation would provide the biggest benefit with the lowest administrative costs possible to reach the most Vermonters with low-income.

Drawing on lessons learned by states deploying similar programs, such as the Connecticut SCEF, we suggest that DUs flow the funds directly to give a specific credit to eligible customers. The credits would then be rolled out to customers over a defined period, such as 10-15 years.

GMP would expect to use our existing EAP list to begin outreach and expand to include eligible Vermonters based on SNAP, LIHEAP, and other assistance programs through partnership with state and community administrators of these programs. This may allow an approach that would support program sustainability; GMP may in the future be able to utilize funds appropriated for this program alongside already-collected EAP money to deliver benefits to more eligible customers.

Components and Evaluation Metric Priorities

Which of the program components should be the primary goals of the Program? Which are the most important?

GMP supports all 10 program components and evaluation metrics listed in the RFI. We prioritize a program that is simple and easy for those eligible to enroll; deploys funds directly to customers to the greatest extent possible; and minimizes the amount of funds spent on administration and project costs. The most important evaluation metrics for this Program are the number of customers enrolled, and low or no impact to non-participating customers. Given the stated program goal of additionally evaluating the amount of distributed solar built, would also be important.

How should the Program be designed to collect the data needed for the evaluation metrics?

In order to provide the data needed to evaluate the Program, DUs could collect data on energy generation and resource metrics and report to the Department on a periodic basis. Data regarding income and demographic metrics for participating customers could be collected in coordination with the Department, the Economic Services Division (ESD) of the Department for Children and Families, and any community action agencies involved in customer outreach. GMP does not collect income information regarding its customers.

How should the Program identify and encourage participation of Vermonters with low income?

GMP plans to identify and encourage participation of low-income Vermonters in the program by first beginning recruitment within our EAP program list and expanding from there. As of June 30, 2021, GMP has 10,207 customers enrolled in EAP. GMP and other DUs can also partner with ESD and community action agencies to identify participants in WARMTH/LIHEAP or other public assistance programs.

Should the Program have a specific goal to identify and encourage participation from under-served and under-resourced communities? Should the Program have a goal to identify and encourage participation from Vermonters that are Black, Indigenous, or people of color?

In order to identify and encourage participation from under-served and under-resourced communities as well as Vermonters who are Black, Indigenous, or people of color, we encourage the Department to commit a portion of funds to support that outreach process. Incorporating the feedback of these communities in project selection also would be a great way to ensure

equity by honoring their input regarding renewable development in state. Outreach materials should be designed to include multiple languages and should be distributed in coordination with community groups.

Response to Straw Proposal

GMP believes that the simplest, and most cost-effective approach to procurement would be to allow the DUs to run their own procurement process. DUs could collaborate on soliciting common projects with credits shared among DU customers. While DUs also could work together with a single administrator such as VEPP, Inc., GMP sees no barriers to facilitating the participation of Vermonters in other DU territories directly with the other DUs, ultimately reducing administrative costs.

Funds for customer credits could be distributed to DUs in a number of ways, for example based on load share, or instead by proportion of qualifying customers in each DU territory, or by level of qualifying customer participation. Customer eligibility should be consistent with the changes to 30 V.S.A. § 218(e) from Act 42 of 2021 (185% of the poverty line).

Project criteria could consider use of energy storage, though overall cost-effective renewable energy installation likely should be the highest priority to ensure maximum value for participating customers. For projects selected by the Program, the environmental attributes should be addressed by having participating utilities retire them as Tier 2 resources.

As an example of how this type of program could work, GMP provided to the Department earlier this year a low-income renewable program design that would use external funds (such as grants or other appropriations like available here) to buy down the PPA rate and create customer credits. That design is based in part upon GMP's small Solar Electric Assistance Program with The Housing Foundation, Inc., which currently provides a $0.09/kWH credit up to 300kWHs for low-income customer usage based upon the use of a small grant that enabled installation of solar at a housing development.

Suggested Alternative Design Proposal

GMP would propose a similar approach to that outlined above, which also borrows feature of the Connecticut SCEF model,[1] with a few changes better suited to Vermont:

- DUs could procure larger projects, up to 5,000 kW (AC), through a traditional RFP process.
- Once the appropriate projects are selected, taking into account all criteria mentioned in the RFI such as location, the DUs would engage in a standard purchase power agreement (and could work with one another to allocate within any PPA to allow multiple DUs to participate).
- The DUs would then use their portion of the program funds to create a credit that would then apply to their eligible customer bill.

GMP would be interested to work with the Department and other stakeholders to determine the best approach to the amount of credit available to customers. Our goal would be to make this

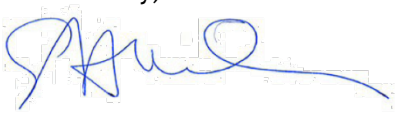
[1] The Connecticut SCEF Program "seeks the deployment of new or incremental Class I renewable generation projects ranging in size from 100 to 4,000 kW (AC) for a 20-year term. Eligible projects are chosen through a competitive bidding procurement process each year, for a total of 6 years," run by the utilities. The current SCEF credit is 2.5 cents/kWh multiplied by the previous 12-month average bill and lasts for 20 years.

program equal to or slightly better than the existing EAP currently offered by GMP which provides a roughly 25% credit on the qualified customer bill.

Additionally, as mentioned previously, if there is an interest in standing this program up as soon as possible, we could utilize a portion of existing solar resources not allocated elsewhere to match with participating customers while the procurement process to develop new solar takes place, ultimately transitioning over to the new solar upon completion of the project(s).

Thank you for the opportunity to provide comments in response to this RFI. GMP looks forward to working with the Department, Clean Energy Development Fund, and other DUs to design and implement the Affordable Community-Scale Renewable Energy Program to maximize its benefits.

Sincerely,



Liz Miller
VP Sustainable Supply & Resilient Systems

RFI: Affordable Community-Scale Renewable Energy Program
from Elizabeth Ferry, Local Town Energy Committee Member

Introduction

Jeff Goebel, founder of the Community Consensus Institute, works in the US and around the world to build consensus on sustainability issues. He notes that we often assume that we have neither the time nor the money to "do it right," and so, instead, we do it over and over.

I encourage the Public Service Department and other stakeholders to take the time to think broadly and imaginatively. Please create a program that truly meets the intended goals. Please do not replicate ones that already exist and fail to meet the ever-increasing challenges of the day.

Summary

1. I presume that it is your intention to create a program that is clear, transparency, and inspires participation and emulation.
2. I presume that the top priorities are to include low-income Vermonters in an inclusive and equitable effort to
   (a) increase renewable energy generation in a manner that will (see b and c)
   (b) meet the state's environmental goals of reducing GHG emissions and
   (c) scale back our unsustainable "overshoot" or overconsumption of planetary resources.
3. The program currently seeks to lower participants' monthly electric bill. We can meet that objective and go farther to address the issue of Overshoot. *We need to find multiple ways to reduce their high energy burden, thereby reducing their monthly consumption*. The program would be strengthened and make real change if included, for example, access to weatherization for homeowners and weatherization incentives for apartment buildings that rent to low-income tenants.
4. The permanent retirement of RECs is necessary for this to be truly a renewable energy project for the benefit of Vermont.

Comments on the Straw Program Proposal —*text in blue*

The Department's straw proposal is to select community-scale renewable energy projects primarily based on price,

Obviously, price is a consideration. But do not make the mistake of making it the top priority. Instead, design the program that Vermonters *want* and that will *meet our needs*; then figure out the most economical manner to deliver that good and worthy plan.

Nature has it's own accounting system. Now, after 50 years of ignoring the science of climate change, we are facing the price, on Nature's term's, a price that will increase with time.

I urge you to set your primary objective in relation to nature's systems — the reduction of GHG emissions and sustainable use of resources — in order to stabilize the climate. Only then will we have the conditions for creating a stable, inclusive, and equitable society. These considerations are far more pressing than dollars and cents.

and make the energy produced by these projects easily available to eligible low-income customers state-wide,

Yes

with a focus on those with high energy burdens,

Refocus/rewording: finding multiple ways to reduce their high energy burden

through our Vermont electric distribution utilities.

Yes

The Department's straw proposal for the Program includes the following:

1. *An RFP for new renewable energy projects.* Yes. *The Department, possibly through a third- party contractor, would sign a long-term fixed-price contract for the energy produced by the project(s).* This sets the scene for an investor-based business model. This raises serious concerns. Whether an intended or unintended consequence, this positions Is high-income individuals to benefit from a program that, publicly understood, is designed to benefit low-income Vermonters.
2. *Projects would be selected based on price of energy delivered as well as the other goals of the Program and feasibility of the proposed project.* Other goals must include environmental goals (such as not destroying forest or prime ag land to create installation sites) and local economic benefit (such as use of local labor for installation).
3. *The renewable energy from the selected project(s) would be sold to Vermont's electric distribution utilities at a discounted rate. The utilities would use this low-cost renewable energy to credit participating customers' bills to lower the customer's energy costs.*
4. *Eligibility for the bill credits would be limited to low-income households defined as those with incomes less than 80% of the State-wide median income level based on household size (current median income for a two-person household in VT is $67,300).*
5. *The utilities, working with the State and other partners would identify low-income households as well as those that meet other goals of the Program to participate. The utilities would enroll these eligible customers into the Program and provide a credit on the participating customer's monthly bill.*
    a. *How the utilities offer, enroll, and unenroll customers in the Program under the Public Utilities Commission's rules and regulations needs to be determined.*
6. *The renewable energy credits (RECs) created by the renewable energy generated may be sold or retired by the utilities to reduce the cost and/or meet regulatory requirements while maximizing the financial benefit available to the Program participants.* I emphatically disagree with selling the RECs; it would defeat the purpose of increasing Vermont's renewable energy production. For this program to be credible, the RECs must be retired by the utility company, ensuring that the creating of renewable energy from these arrays counts towards the mandated VT state goals.
7. *Any revenue collected by the Program would go towards covering administrative costs and for the development of additional renewable energy projects within the Program.*

Specific Questions on the Straw Proposal:

1. *What problems do you see with the straw Program proposal?*

A. The Public Utilities Commission has agreed to the utilities' various requests for changes that signal that they do now want more distributed community sized solar arrays. Fundamental to moving this proposal ahead would be support small-scale renewable energy generation, whether it is part of this Program or not.

B. Currently, it is difficult to design a community-scale project that makes financial sense, given rulings by the PUC.

a) Vermont Law School has developed an alternative model.

b) Question for Clarification: It is my understanding that Green Mountain Power retires the RECs for small-scale projects. Is this accurate? Is retirement a permanent attribute or can it be reversed? If RECs can be sold when a utility surpasses the 10% threshold, then the legislature needs to increase the percentage to greater than 10.

c) Unless the RECs are permanently retired, the energy generated will not count towards Vermont's goals and, instead, will benefit another New England state. I do not believe that Vermonters want this one-time investment of money and Vermont land to bypass our citizens. The PSB's stance on this needs to be made clear to the public in order to be transparent and credible.

C. The Program currently seeks to increase low-income participation in renewably generated energy, and reduce the financial monthly cost of those individuals. So far, this broadens participation and reduces individual costs, an improved extension of the *status quo.* However,

With regards to addressing Overshoot, it is not enough to lower the monthly bill; *we need to reduce monthly consumption.* The program would be strengthened and make real change if included access to weatherization for homeowners and weatherization incentives for apartment buildings that rent to low-income tenants.

2. *What is the best mechanism to distribute benefits to participants statewide?*

No comment.

3. *Other than price, what other project characteristics should be considered in the selection of projects?*

A. Environmental considerations: such as not destroying farmland or forest

B. Economic considerations: such as employing local Vermont-owned companies

C. Reduction in overall energy consumption, not just less financial outlay for the same amount of energy used. (See 1C above)

4. *Is there a better eligibility for what qualifies for low-income? Should there be a design component that provides a greater benefit to the very-low income or those with very high energy burdens?*

No comment.

5. *How should the Program address any environmental attributes created by selected projects? For example, should the program require the retirement of renewable energy credits created by projects in the Program, or should they be sold or retired by participating utilities to maximize the economic benefit provided to participants.*

RECs should be retired by the utility. To do otherwise is to contradict what I believe are intended to be embedded values: benefit low-income Vermonters; a pathway for them to be true participants in the state-wide effort to address climate change; use Vermont land to host renewable energy generation.

Selling the RECs strips the energy of its "green" attributes, creates investment advantage for high-income people, and serves New England communities outside of Vermont. This works against the values of clarity, transparency, and credibility that I believe the PSB wants to uphold.

To anyone who advocates for this latter path, I ask: Do you want Vermont to be the Green Mountain State or the Solar Panel state? When we sell RECs, we increase the number of solar installations that will be needed to meet our goals as well as other states. I do not want the working landscape of Vermont to be sacrificed as "low hanging fruit" so that other entities — states or corporations — can claim our RECs while sidestepping their own responsibility to address climate change.

6. *Should the Program include energy storage or smart grid components?*
   To the degree that it will address Overshoot and "work smart" with what we have, Yes.

7. *What other Program designs should the Department consider?*
   No further comment. Thank you for your time and consideration.

Thank you, too, for your commitment and dedication to working out these pressing, thorny issues. Our choices now have incredibly long-term implications.

— Elizabeth Ferry
Barnard, Vermont

conservation law foundation

For a thriving New England

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August 18, 2021

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Clean Energy Development Fund
Public Service Department
112 State Street
Montpelier, VT 05620-2601

Via email: Andrew.Perchlik@Vermont.gov

re: Request for Information Regarding the Design and Implementation of An Affordable Community-Scale Renewable Energy Program

Dear Mr. Perchlik and Members of the Clean Energy Development Board,

Thank you for the opportunity for Conservation Law Foundation ("CLF") to respond to the Request for Information ("RFI") on the design and implementation of an Affordable Community-Scale Renewable Energy Program (the "Program"). CLF has reviewed the RFI, relevant statutory provisions, and related materials. Based on that review, CLF urges the Clean Energy Development Board (the "Board") and the Department of Public Service (the "Department") to design the Program to meaningfully reduce greenhouse gas ("GHG") emissions and provide for the long-term benefit of Vermonters with low-income by investing in low GHG energy sources. Equity should be a central component of the Program's objectives because black, indigenous, and people of color ("BIPOC") Vermonters disproportionately live with low-income, and because Vermonters with low-income bear disproportionate burdens from climate change. CLF also urges the Board and Department to ensure that the financial benefits from the Program accrue in-full to Vermonters with low-income. CLF encourages the Board and Department to consider whether the Program could be structured in a way that deepens savings for Vermonters with low-income and reaches more such Vermonters over time by reinvesting proceeds from the sale of renewable energy credits ("RECs") back into the Program. CLF's suggestions are addressed in more detail below.

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CLF is a nonprofit, member-supported, regional environmental organization working to conserve natural resources, protect public health, and promote thriving communities for the benefit of all people in the New England region. We use the law, science, and the market to create solutions that preserve our natural resources, build healthy communities, and sustain a vibrant economy. CLF works to reduce GHG emissions by promoting policies that support clean energy development and that end the use of GHG emitting energy sources.

RFI 1 – DRAFT PROGRAM COMPONENTS & EVALUATION METRICS

The Program Should Responsibly Reduce GHG Emissions, Prioritize Equity, and Provide Long-Term Benefit for Vermonters with Low-Income

The $10,000,000 investment under consideration is of great importance to Vermont doing its part to responsibly reduce GHG emissions and provide long-term benefits for Vermonters with low-income. Because BIPOC Vermonters disproportionately live with low-income, and people with low-income bear disproportionate burdens from climate change, the Program is also an opportunity to prioritize equity. When considering investments, the Program should give great weight to GHG reductions, equity, and long-term benefits to Vermonters with low-income.

The Program Should Prioritize Reducing Vermont's GHG Emissions

The Program should fulfil Vermont's responsibility to reduce GHG emissions and should thus prioritize GHG reductions. On August 7, 2021, the Intergovernmental Panel on Climate Change ("IPCC") released its' Sixth Assessment Report.[1] The IPCC has unequivocally concluded that global warming of 1.5°C and 2°C – the highest levels of warming permitted under the Paris Climate Agreement[2] – will be exceeded within the coming decades largely due to already emitted GHG emissions.[3] We know that "[t]here will be an increasing occurrence of some extreme events unprecedented in the observational record with additional global warming, even at 1.5°C of global warming."[4] And we know that "every additional 0.5°C of global warming

[1] *See* IPCC, *AR6 Climate Change 2021: The Physical Science Basis* (2021) (hereinafter, the "IPCC Report"), https://www.ipcc.ch/report/ar6/wg1/#SPM.

[2] *See* United Nations, Climate Change, The Paris Agreement (last visited August 13, 2021), https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement.

[3] *See* IPCC Report, Summary for Policymakers at 15-18.

[4] *Id.* at 19.

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causes clearly discernible increases in the intensity and frequency" of such occurrences.[5]

The IPCC was also clear that to fend-off the worst consequences of climate change, GHG emissions must be rapidly reduced *now* and become *net-negative*[6] by approximately 2050.[7] This decade is humanity's final opportunity to avert the worst impacts of climate change. Vermont has already committed to binding GHG reductions. *See* Act No. 153 Sec. 3 (2020) (hereinafter, "Act 153" or the "GWSA"). The Program presents a tremendous opportunity for Vermont to fulfil its GHG reduction requirements and do its part to avert the worst impacts of climate change.

The Program should thus prioritize GHG emissions reductions. Doing so is consistent with related legislative guidance. The Vermont Legislature has found that "a failure to substantially reduce emissions over the next ten years will . . . increase the costs of decarbonization" and "risks significant economic damage to Vermont." *See* Act 153 Sec. 2(3). Conversely, by investing in responsible GHG reductions, Vermont will "position its economy to benefit and thrive from the global transition to a decarbonized planet." *See* Act 153 Sec. 2(2). Vermonters' long-term wellbeing requires meaningful investments in the lowest GHG emitting energy sources and energy storage devices now available. The Program presents an opportunity to make such investments.

The Program Should Prioritize Equity and Invest in <u>Long-Term</u> Benefits for Vermonters with Low-Income

The Program is also an opportunity for the State to prioritize long-term benefits for Vermonters living with low-income, of whom BIPOC Vermonters comprise a disproportionate number. Section 8015(c) of Title 30 specifies that the provision of "long-term benefit" to Vermonters is a core purpose of the Clean Energy Develop Fund. And the Legislature has specified that the Program should benefit "Vermonters with low income." *See* Act No. 74 Sec. G.600(a)(5) (2021) (hereinafter, "Act 74"). BIPOC Vermonters disproportionately live with low-income[8] and the Program should thus be structured to equitably address such disparities. As such, *equity* and *long-term benefits* for Vermonters with low-income should be central considerations

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[5] *Id.*

[6] The IPCC defines "net negative CO2 emissions" as being "reached when anthropogenic removals of CO2 exceed anthropogenic emissions." *See* IPCC Report, Summary for Policymakers at 15 n.23.

[7] *See, e.g.*, *id.* at 15-18.

[8] *See, e.g.*, Talk Poverty, Poverty by State, Vermont (2020), https://talkpoverty.org/state-year-report/vermont-2020-report/.

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underpinning the Program's investment decisions.

Those considerations are supported by Vermont law. The Vermont Legislature has found that the "climate crisis disproportionately impacts rural and marginalized, disenfranchised, and disinvested communities" in Vermont, which is why Vermont "must prioritize the allocation of investment of public resources to these communities." *See* Act 153 Sec. 2(5). Long-term benefits equitably afforded to such communities should be central considerations of the Program.

Additional Comments Concerning RFI 1

Below are several additional comments responsive to the RFI 1:

- As noted, the Program's primary goals and considerations should be the reduction of GHG emissions for the long-term and equitable benefit of Vermonters with low-income. To achieve this goal, the Program should consider life cycle GHG emissions caused by different investment options and select investments from among the lowest GHG emitting options. The Program should provide for electricity at a meaningfully discounted rate to Vermonters living with low-income and do so in a manner that addresses the disproportionality of BIPOC Vermonters living with low-income.

- The Program should weigh GHG emissions and air pollution *heavily* when considering investment options. Responsible climate solutions require investments in low carbon and clean energy sources. But not all "renewable" energy is low carbon or pollution free. Unfortunately, biomass electricity generation facilities emit climate-change causing emissions when they combust their fuels.[9] Such emissions are sustained over the decades-long lifetimes of each facility – thereby adding carbon to the atmosphere now and into the future. The combustion also emits fine particulate matter that is harmful to human health.[10] And the (re)sequestration of carbon in new tree growth is slow when

[9] *See* Peter Raven, *et al*, *Letter Regarding Use of Forests for Bioenergy* (Feb. 11, 2021), https://s3.eu-central-1.amazonaws.com/euobs-media/614ae43ad6355fa0101da2818a484c09.pdf; *see also* Thomas Buchholz, *et al.*, *Greenhouse Gas Emissions of Local Wood Pellet Heat from Northeastern US Forests* at i, 11, 15-16 (2017); Mary S. Booth, *Trees, Trash, and Toxics: How Biomass Energy Has Become the New Coal*, PARTNERSHIP FOR POLICY INTEGRITY, 5 (April 2, 2014), https://www.pfpi.net/wp-content/uploads/2014/04/PFPI-Biomass-is-the-New-Coal-April-2-2014.pdf; GHGOnline, Methane Sources – Biomass Burning (last visited July 27, 2021), http://www.ghgonline.org/methanebioburn.htm.

[10] *See* American Lung Association, *Public Policy Positions on Energy and Transportation* (June 22, 2019), https://www.lung.org/policy-advocacy/public-policy-positions/public-policy-position-energy;

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compared to the rapid rate at which carbon is emitted from combustion.[11] Renewable natural gas ("RNG") and biodiesel also emit meaningful GHGs when they are created, combusted, and when fugitive GHGs leak during production, transportation, and storage.[12] They generate pollutants harmful to human health.[13] And they rely on existing fossil fuel infrastructure that enables and prolongs the use of fossil fuels. While these GHG-emitting energy sources may play a role in displacing fossil fuels from certain high-heat industrial processes and other use-cases where clean electric alternatives are particularly difficult to implement, they are unfortunately not well suited for community-scale projects or climate action investments.[14]

- The Program should consider the whole cost of GHG emissions prior to making investment decisions. Technologies that produce GHG emissions externalize vast costs to human life, health, security, nutrition, livelihood, and our shared environment.[15] Vermont industries that rely on a cyanobacteria-free Lake Champlain, snowfall, and maple sugaring bear tremendous costs caused by GHG emitting energy sources.[16]

American Lung Association, *Particle Pollution* (last visited July 27, 2021), https://www.lung.org/clean-air/outdoors/what-makes-air-unhealthy/particle-pollution; Helinow J. Johnson, *et al.*, *How Harmful Is Particulate Matter Emitted from Biomass Burning? A Thailand Perspective* (2019) ("A large body of epidemiological evidence has clearly demonstrated that short- and long-term exposure to particulate matter (PM) is associated with increased morbidity and mortality.").

[11] John D. Sterman, *et al*, *Does replacing coal with wood lower CO2 emissions? Dynamic lifecycle analysis of wood bioenergy*, ENVIRON. RES. LETT. at 6 (2018).

[12] *See, e.g.*, Emily Grubert, *et al*, *At Scale, Renewable Natural Gas Systems Could Be Climate Intensive: The Influence of Methane Feedstock and Leakage Rates*, ENVIRO. RESEARCH LETTERS at 1 (2020); *see also* John M. DeCicco, *et al*, *Carbon Balance Effects of U.S. Biofuel Production and Use*, CLIMATE CHANGE (2016).

[13] *See* Brady Anne Seals & Andree Krasner, *Health Effects from Gas Stove Pollution*, Rocky Mountain Institute (2020); Sasan Saadat, *et al*, *Rhetoric Vs. Reality: The Myth of "Renewable Natural Gas" for Building Decarbonization*, Sierra Club & Earth Justice at 2 (2020).

[14] *See* Saadat, note 13, *supra*.

[15] *See, e.g.*, State of Vermont, Climate Change in Vermont (last visited August 16, 2021), https://climatechange.vermont.gov/our-changing-climate/what-it-means; *see also* R. Daniel Bressler, *The Mortality Cost of Carbon*, NATURE COMMUNICATIONS (2021); Watts, *et al*, *The 2020 Report of The* Lancet *Countdown on Health and Climate Change: Responding to Converging Crises*, THE LANCET (2020).

[16] *See* note 15, *supra.*; *see also* IPCC Report, Summary for Policymakers at 20 & 25 ("Additional warming is projected to further amplify . . . loss of seasonal snow cover . . . (*high confidence*)" and

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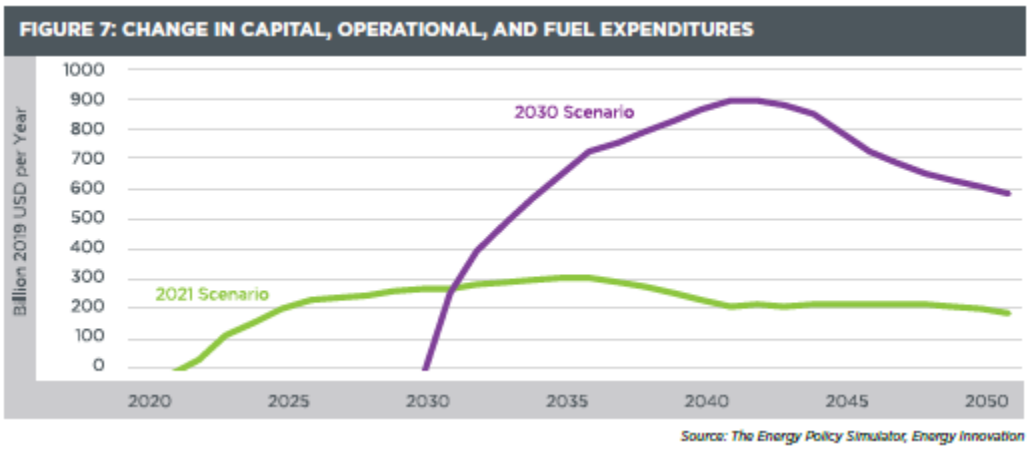
Vermonters who breath fine particulate matter emitted from combusted fuels – and the public health systems who treat them – also bear externalized costs.[17] The Program should consider the costs of carbon to accurately assess potential investments.

- The Program should heavily weigh the Legislature's finding that a failure to responsibly invest in significant GHG reductions now will result in far greater costs paid in the future. *See* Act 153 Sec. 2(3). That finding is supported by research. "[D]elayed action . . . would also result in a great deal of stranded assets — if we continue to buy and build polluting power plants, factories, and equipment for the next decade, and then decide we must make the clean energy transition fast to avoid climate damages, we will need to retire much more polluting equipment before the end of its functional life. And that isn't cheap."[18] To provide for the long-term benefit of Vermonters with low-income, the Program should invest now in clean technologies that will remain viable in a decarbonized economy. Delaying such investments, even to 2030, would be costly:



See Harvey, *supra* note 18.

"[t]here is *high confidence* in an earlier onset of spring snowmelt.").

[17] *See* notes 10, 15 & 16, *supra*, for some of the many relevant examples of externalized costs.

[18] *See* Hal Harvey, *et al*, *The Costs of Delay*, Energy Innovation Policy & Technology at 14 (2021), https://energyinnovation.org/wp-content/uploads/2021/01/Cost_of_Delay.pdf.

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RFI 3 - STRAW PROPOSAL ON PROGRAM DESIGN

The Program Should Follow Statutory Guidelines

The funds underlying the Program are intended to be utilized as a climate action investment in renewable energy projects capable of providing long-term benefits to Vermonters with low-income. In Act 74, the Vermont Legislature appropriated $50,000,000 towards "CLIMATE ACTION INVESTMENTS." *See* Act 74 Sec. G.600. Of those total funds, $10,000,000 are to be used on the Program in a manner that is "consistent with the parameters of the Clean Energy Development Fund" and "to support the creation of renewable energy projects for Vermonters with low-income." *See* Act 74 Sec. G.600(5). One of the core purposes of the Clean Energy Development Fund is to promote "the *long-term benefit* of Vermont consumers." *See* 30 V.S.A. § 8015(c) (emphasis added). Thus, taken altogether, the $10,000,000 appropriation should be utilized as:

- A climate action investment
- To support renewable energy projects
- Capable of providing long-term benefits
- For Vermonters with low-income

The Program Should Not Place Undue Weight on Price Alone

The Program should not "select community-scale renewable energy projects primarily based on price," as the RFI suggests. *See* RFI at 5. As an initial matter, Neither Act 74 nor § 8015 of Title 30 require that the Program be primarily based on price. The Board and Department should not self-impose that condition. Doing so may cause unintended harms:

- Focusing primarily on price wrongly shifts the Program's focus away from its primary purpose of mitigating climate change. The $10,000,000 appropriation to the Program is plainly intended for "CLIMATE ACTION INVESTMENTS." *See* Act 74 Sec. G.600. To mitigate climate change, deep GHG emissions reductions are required now.[19] A responsible climate action investment is thus one that meaningfully reduces GHG emissions, even if immediate costs are marginally higher than costs associated with GHG emitting energy sources.[20] A community-scale renewable energy project should be

[19] *See, e.g.*, Act 153 Sec. 2(1); *see also* IPCC Report.

[20] As discussed on pages 5-6 and in notes 15-17, determining the true price of a technology requires

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selected in large part based on its strength as a climate action investment, not its price alone. *See* Act 74 Sec. G.600.

- Focusing primarily on price risks unintentionally perpetuating systemic inequalities where Vermonters with low-income bear disproportionate burdens during Vermont's transition away from GHG emitting energy sources. The Program should consider equity and long-term benefits, not merely price. By its terms, the present appropriation is intended to benefit "Vermonters with low-income." *See* Act 74 Sec. G.600(5). And BIPOC Vermonters disproportionately live with low-income.[21] A program that provides only the cheapest form of renewable energy to Vermonters with low-income is a program that may disproportionately burden historically marginalized communities. As noted, some renewable energies emit significant GHGs and produce harmful pollutants that negatively impact human health.[22] And investing in GHG-emitting energies now likely will strand those assets and soon require costly additional investments.[23] Clean renewable energy – such as solar coupled with electricity storage – does not emit GHGs or produce harmful air pollution and is unlikely to generate stranded costs. Wealthier Vermonters can afford to acquire the benefits of cleaner air from more financially secure long-term investments, like solar. Vermonters with low-income likely cannot afford those benefits and will thus rely on the Program for affordable renewable energy. If the Program selects energy sources based primarily on price – without focusing on equity or long-term benefits – the Program risks placing disproportionate burdens on Vermonters with low-income, such as increased air pollution and future costs arising from stranded GHG-emitting assets requiring replacement.

The Program Should use the IPCC's Definition of "Feasibility"

The RFI's Straw Proposal indicates that a project will be reviewed based on the "feasibility of the proposed project." *See* RFI at 6. Without a clear definition of *feasibility*, one person's subjectivity may lead them to conclude a project is infeasible while another person's subjectivity causes them to conclude the same project is feasible. To the extent the Board and Department choose to evaluate projects based upon "feasibility," they should promote objectivity by

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internalizing costs incurred by GHG and pollution emitting energy sources. And as discussed on page 6 and note 18, delaying investments in clean technologies, even until 2030, will incur far greater costs.

[21] *See* note 8, *supra*.

[22] *See* pages 4-5 & notes 9-14, *supra*.

[23] *See* Harvey, *supra* note 18.

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committing to use and then adhering to the IPCC's definition of that term:

> The 'feasibility' of adaptation and mitigation options or actions within each system that together can limit warming to 1.5°C within the context of sustainable development and efforts to eradicate poverty requires careful consideration of multiple different factors. These factors include (i) whether sufficient natural systems and resources are available to support the various options for transitioning (known as *environmental feasibility*); (ii) the degree to which the required technologies are developed and available (known as *technical feasibility*); (iii) the economic conditions and implications (known as *economic feasibility*); (iv) what are the implications for human behaviour and health (known as *social/cultural feasibility*); and (v) what type of institutional support would be needed, such as governance, institutional capacity and political support (known as *institutional feasibility*). An additional factor (vi – known as the *geophysical feasibility*) addresses the capacity of physical systems to carry the option. For example, whether it is geophysically possible to implement large-scale afforestation consistent with 1.5°C.[24]

The Board and Department Should Ensure that the Financial Benefits from the Program Accrue In-Full to Vermonters with Low-Income

CLF urges the Board and Department to provide oversight to ensure Vermonters with low-income enjoy the full benefits of the Program. For example:

- The RFI states that "renewable energy from the selected project(s) would be sold to Vermont's electric distribution utilities at a discounted rate. The utilities would use this low-cost renewable energy to credit participating customers' bills to lower the customers' energy costs." *Id.* This is a commendable goal. To help achieve that goal, there should be oversight ensuring the Program's financial benefits in fact accrue to Vermonters with low-income specifically instead of unintentionally accruing to ratepayers generally.

- The RFI states that "renewable energy credits (RECs) created by the renewable energy generated may be sold or retired by the utilities to reduce the cost and/or meet regulatory requirements while maximizing the financial benefit available to the Program participants." *See* RFI at 6. This is also a commendable consideration. However,

[24] *See* IPCC, FAQ Chapter 4 (last visited August 14, 2021), https://www.ipcc.ch/sr15/faq/faq-chapter-4/.

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additional consideration around the sale of renewable energy credits ("RECs") may improve the long-term efficacy and scope of the Program for the benefit of Vermonters with low-income. For example, the Board and Department may consider whether revenue generated from the sale of RECs could be reinvested into the Program. Reinvesting proceeds from the sale of RECs back into the Program could help bring new energy online, grow the Program, and thus reach additional Vermonters with low-income and provide greater energy savings to those Vermonters over time. Reinvestment could also help grow the Program without additional appropriations or taxes.

- Vermonters with greater financial need should realize proportionally greater cost reductions under the Program. The Program should provide progressive savings, with the lowest-income Vermonters receiving greatest cost reductions under the Program.

Thank you for your consideration. Please do not hesitate to reach out if I may be of assistance.

Sincerely Yours,

Chase S. Whiting, Staff Attorney
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August 18, 2021

Andrew Perchlik
Vermont Public Service Department
112 State Street
Montpelier, VT 05620-2601

Re: Request for information on the design and implementation of an Affordable Community-Scale Renewable Energy Program

Dear Mr. Perchlik,

Burlington Electric Department ("BED") submits the following comments in response to the Department of Public Service's ("Department's") July 19, 2021 request for information ("RFI") on the design of the Vermont Clean Energy Development Fund's ("CEDF") Affordable Community-Scale Renewable Energy Program ("Program"). BED's comments on the draft Program's goals and evaluation metrics, eligibility of the Program for American Rescue Plan Act of 2021 ("ARPA") funds and the Department's straw proposal are outlined below.

I. Draft Program goals and evaluation metrics

1. Which of these program components should be the primary goals of the Program? Which are the most important?

The primary goals of the program should be to provide a climate benefit and opportunity for low-income Vermonters to participate in renewable energy generation. This is in keeping with the stated goals of the appropriation for the Program in Vermont Act 74 of 2021.[1] Other proposed metrics such as the amount by which low-income Vermonters' electric bills will be reduced are also important, but the primary design should focus on providing emissions reduction and wider opportunity for low-income Vermonters to benefit from renewable energy. While bill *reductions* should not be a metric for evaluating program success, any final program should provide some financial benefit for participating customers.

[1] Vermont Act 74 of 2021 Section G. 600 (a)(5) $20,000,000 to the Department of Public Service of which $10,000,000 is to be used on the Affordable Community-Scale Renewable Energy Program, consistent with parameters of the Clean Energy Development Fund, to support the creation of renewable energy projects for Vermonters with low-income.

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2. How should the Program weigh these program components when choosing among different proposed renewable energy.

The Program should be made available to the greatest number of eligible participants and that should be the primary metric, rather than seeking to maximize a particular electric bill cost reduction.

3. Should there be goals regarding the siting of the renewable energy projects in the Program?

At a minimum, siting should be done so as not to exacerbate existing transmission constraints within the Sheffield Highgate Export Interface ("SHEI"). There could also be value in siting the Program's facilities near Program participants' loads, to the extent feasible, to create a sense of participant ownership of the generation facilities.

4. How should the Program be designed to collect the data needed for the evaluation metrics?

Sufficient data should be available on production and cost impacts to permit evaluation of economic, climate, and system impacts.

5. How should the Program identify and encourage participation of low-income Vermonters in the Program?

The Department could borrow from the VCAAP model in which the Department provides a centralized application process and public outreach efforts that are supported by individual distribution utilities' efforts. BED notes that while it may be possible to identify income-eligible customers, BED would not provide this information or directly enroll eligible customers in the Program in the absence of a customer-initiated application process.

6. Should the Program have a specific goal to identify and encourage participation from under-served and under-resourced communities?

If it is determined that a goal of the Program is to serve "under-served" and "under-resourced" communities in addition to meeting the statutory low-income Program requirement, interpretations of these terms could include prioritizing the siting of Program facilities in utility territories that do not already offer the opportunity for low-income customers to participate in affordable renewable energy programs or where the demographics of "under-served" and/or "under-resourced" customers are determined to be relatively higher.

7. Should the Program have a goal to identify and encourage participation from Vermonters that are Black, Indigenous, or people of color?

Yes.

8. Which are the most important evaluation metrics of success for this Program?

As mentioned in BED's responses to #1 and 2 of this section, the primary metrics for Program success should be the Program's climate impact and Program participation by eligible low-income Vermonters.

II. Program's Eligibility for ARPA Funds

BED agrees with the Department's determination that the Department's proposed Program meets the ARPA fund requirements.

III. Department's Straw Proposal

1. What problems do you see with the straw Program proposal?

As mentioned above, the Program could borrow elements of the Department's VCAAP model as well as incorporating any lessons learned from that program. BED would not provide customer income data to the Department to identify eligible participants or directly enroll those participants. Instead, BED would only conduct outreach to customers generally to encourage eligible applicants to apply through a centralized customer-initiated Department application process. Currently, BED verifies customer income for other program eligibility by self-certification only.

2.What is the best mechanism to distribute benefits to participants statewide?

Benefits of program should be distributed throughout Vermont and distributed to each utility in proportion to its number of eligible customers.

3. Other than price, what other project characteristics should be considered in the selection of projects?

To avoid exacerbating SHEI constraints, and the costs to all customers (including low-income customers) of poor siting choices, locational considerations must be incorporated into the project selection process, as price-focused project selection has led to development of projects where land is the cheapest and the transmission impacts are the greatest. One way to incorporate locational price impacts into the bids could be to add the proposed mitigation adjustor cost discussed in Commission Case Numbers 20-3304-PET and 19-0855-RULE to the cost of any proposed project bid within SHEI.

4. Is there a better eligibility for what qualifies for low-income? Should there be a design component that provides a greater benefit to the very-low income or those with very high energy burdens?

The income eligibility criteria should be consistent with those proposed in Commission Case No. 20-0203-INV: Investigation into the establishment of reduced rates for low-income residential ratepayers of Vermont electric utilities. In that case, GDS recommends that GMP change the income

qualification threshold for its Energy Assistance Program to 185% of federal poverty level for consistency with Vermont's other social support programs. BED is also currently using 185% of federal poverty level for eligibility for its temporary energy assistance program.

5. How should the Program address any environmental attributes created by selected projects? For example, should the program require the retirement of renewable energy credits created by projects in the Program, or should they be sold or retired by participating utilities to maximize the economic benefit provided to participants.

The renewable energy credits ("RECs") created by the Program should be utilized to meet Vermont's Renewable Energy Standard (either Tier 2 or Tier 3) so that the climate benefits of the generation are attributable to Vermont.

6. Should the Program include energy storage or smart grid components?

While energy storage and smart grid components should be considered for proposed projects, these elements should not be required. In the absence of an accompanying plan to size and manage storage so that its charging and discharging provides maximum grid benefits, storage adds limited value at best and at worst could exacerbate grid constraints. Adequate consideration of the intended utilization pattern and control of storage is as important when proposing storage facilities as ensuring that new renewable generation facilities are sited such that they do not exacerbate transmission constraints.

Thank you for the opportunity to comment. Should you have any questions or concerns, please feel free to contact us at any time.

Sincerely,

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Attn: Andrew Perchlik
VT Public Service Department
112 State Street
Montpelier, VT 05620-2601

August 18, 2021

Subject: Response to Request for Information (RFI) regarding the Affordable Community-Scale Renewable Energy Program

Dear Mr. Perchlik,

I am writing from the perspective of an energy and climate change professional with over twelve years of experience in the sustainability industry, as well as the project manager of Peacham, Vermont's 150 kW community solar effort, currently in the planning and feasibility phase.

In response to the specific questions on the RFI Straw Proposal, please consider the following:

1) Ensure "renewables" is defined specifically with additionality for Vermont in mind and that renewable power does not include hydroelectric power.

2) Prioritize projects benefiting VT environmental justice (EJ) communities (i.e. those historically hurt by PFAS contamination, extractive fossil fuel based industries, etc.) as part of the project characteristics to be considered.

3) Ensure special funding is made available to affordable (smaller-scale) community-led projects, like ours in Peacham, and not just allocated to utilities for their LMI programs, or utility-scale projects.

Many thanks for your consideration and please let me know if you have any questions.

Sincerely,

Allison Webster
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