Appendix C. Summary of Program Models and Meeting 3 Discussion Questions

This document was circulated by the Department of Public Service to Act 179 Meeting Series participants in advance of Meeting 3.

This document seeks to synthesize aspects of conversations to date in the first two stakeholder meetings. In particular, the table on pages 3–9 offers a summary of the program models reviewed in Meeting 2 through two lenses:

1. Whether they advance objectives for a successor program as outlined in Act 179 and
2. The three types of program impacts we have discussed (economic, social, environmental)

This table presents a DRAFT summary with initial notes compiled by Department staff based on information presented at Meeting 2 and the information request to distribution utilities about current programs for income-eligible customers.

We hope to continue to refine this table given feedback from participants in this meeting series and additional conversation during our third and final meeting on **Thursday, October 10th**.

Requested Action Items:

- **Prior to Thursday's meeting:** Please review the discussion questions and draft table below prior to Thursday's meeting. This is not critical, but reviewing the material in advance will to support participation in the discussion. If you only have 10 minutes to review, please prioritize reviewing the discussion questions outlined below.

- **Following Thursday's meeting**: By **Friday October 18th:**
    1. Please provide any written comments you have on the draft table below including:
        - What details are missing or need to be refined regarding the program models considered?
        - How should the "Act 179 Objectives" columns be completed for each program, rating the extent to which a program advances each of the three objectives from a scale from 1 to 5 (with 1 meaning "does not advance objective" and 5 meaning "definitely advances the objective")? **This should be done from both the *program participant* and *non-participant* perspectives.**
    2. Share any additional thoughts on the discussion questions below (see page 2).

Discussion Questions for Meeting 3

1. To what extent do program models covered in Meeting 2 advance objectives stated in Act 179 for program participants? For non-participants? Objectives include:
    - Reducing resident energy burdens
    - Reducing operating costs
    - Encouraging electrification & decarbonization of buildings
    - Connecting affordable housing & manufactured home communities (and other frontline & impacted communities) with solar

2. What do program models covered in Meeting 2 do well with regards to:
    - Offering a process to bring additional solar or other renewable energy projects online that could be owned by affordable housing developers (and other frontline & impacted communities);
    - Enrolling eligible customers, including property owners of qualified rental units; and
    - Providing bill credits to program participants

3. Where do you see gaps in the ability for example program models to achieve some or all the objectives outlined in questions 1 and 2? Where do models have to make tradeoffs on achieving one objective to advance another?
    - What other program models might be able to help address these issues?
        - *Some example programs that can help achieve some, but not all, of the stated objectives of Act 179 include:*
            - *Renewable Energy Standard (RES) requirements of utilities including providing 100% renewable energy by 2030/2035 to all customers*
            - *Tier III or Energy Efficiency incentives offered by the distribution or efficiency utilities (supports electrification & decarbonization and/or reducing energy burden)*
            - *Energy Assistance Programs (EAPs) offered by GMP and BED (supports reducing energy burden)*
            - *Low-income rate programs (i.e GMP Shared Solar Tariff; supports reducing energy burden)*
            - *Grant funding (could support several objectives)*

4. What are your recommendations for program models that best meet the objectives outlined in Act 179 based on their impact to Vermont's frontline & impacted communities?

Program Name	Program Description	Act 179 Objectives[1,2] *Note: The cells in these columns have been intentionally left blank. We hope to begin to develop answers to these questions in Meeting 3 and invite participants to provide suggested responses following that meeting (see Page1 "Requested Action Items"). Please rate the extent to which each program advances the objectives from 1 (does not advance) to 5 (definitely advances) for both program participants ("P") and non-participants ("NP"). Please use a comment to provide context as necessary.*				Impacts *Benefits + Costs (Burdens) to Specific Stakeholders*	Incentive or Funding Source + Program Beneficiary
		Reduce resident energy burden	Reduce operating costs	Encourage building elec. & decarb.	Connect affordable housing & manufactured homes with solar		
Baseline – Current Program Examples Based on Virtual Group Net-Metering from Meeting 2							
Evernorth Bay Ridge	150 kW group net-metered offsite solar array developed under virtual group net-metering in combination with rooftop solar (kW?) to serve a mixed-income neighborhood development with 68 affordable apartments and 26 shared equity homes. Rooftop and offsite combined offset	*P:* *NP:*	*P:* *NP:*	*P:* *NP:*	*P:* *NP:*	*Economic* • Tenant Benefit: Reduces monthly utility bill of tenants to zero • Owner Benefit: Offsets 51% electricity consumption, enhances owner ability to invest in heat pumps and related O&M; Better cash flow means greater capacity to take on debt (build more housing)	*Incentive*: Group net-metering compensation rates *Beneficiary*: 1. Housing Developer (Evernorth) and

[1] "The goal of this report is to develop a replacement program for group net metering to **reduce operating costs, reduce resident energy burdens, and encourage electrification and decarbonization of buildings** and enhance the financial capacity of housing providers to electrify the buildings developed or rehabilitated and provide relief to residents of manufactured home communities from their energy burdens."

[2] "Propose comparable successor programs to group net-metering for **connecting affordable housing developments and income eligible residents of manufactured home communities with solar projects in order to reduce operating costs, reduce resident energy burdens, and encourage electrification of buildings.**"

	51% of the neighborhood's electricity usage.					• Owner Cost: Upfront investment in development (~$882k) • Grid Benefit: Generation sited close to load • Utility / Ratepayer Cost/Burden: Power procured at above market (retail-based) rate *Social* • Benefit: Expands access to investment in renewables to multifamily housing / renters *Environmental* • Reported Benefit: Reduces 189 tons of carbon emissions from electrification, 162 tons / year from solar generation • Possible cost: heat pump refrigerant leaks must be avoided	2. Affordable Housing Tenants
SEVCA Community Solar	110 kW group net-metered solar array developed through the virtual group net-metering project. Sited at SEVCA and net-metering credits used to provide a financial benefit for high energy burden, low-income individuals equal to 1.8% of the array's annual generation (recently ~$400/annually).	*P:* *NP:*	*P:* *NP:*	*P:* *NP:*	*P:* *NP:*	*Economic* • Household benefit: Roughly $407/year ($34/month) bill credits • Household benefit: Reduced number households receiving financial assistance from SEVCA • Challenge: Balancing serving more households with meaningful financial benefit *Social*	*Funding & Incentive:* Multiple outside funding sources to cover the developme nt costs (~$300k); Group net-metering

						• Benefit: Increases access to benefits of investing in renewables *Environmental* •	compensation rates *Beneficiary:* SEVCA (wholly owns array) + passes net-metered credits to program participants
Alternative Program Models – Examples from Meeting 2							
VEC Community Solar	VEC Community Solar program allows VEC members to sponsor panels in a VEC-procured solar array. Sponsorships can be for a little as 1 panel up to enough panels to cover an entire electric bill. CSA model where customers invest up front ("pre-pay") and receive more value over time in return.	*P:* *NP:*	*P:* *NP:*	*P:* *NP:*	*P:* *NP:*	*Economic* • Program Participant Benefit: Scalable, fixed monthly bill credit up to entire bill; • Program Participant Cost: Upfront investment to sponsor 1-N panels, financing options available; Greater investment upfront = greater benefit over sponsorship term • Utility / Ratepayer Benefit: VEC procures power at competitive, market rate via a power purchase agreement (PPA) • Grid Benefit: Siting close to load, non-grid constrained – optimize grid efficiency *Social*	*Funding:* Utility (ratepayer) investment in competitively procured (market-rate) solar *Beneficiary:* VEC Coop members

						• Benefit: Increases access - accessible to renters, those without suitable sites, etc (est. can support 1200 homes' annual usage) *Environmental* • Benefit: RECs retired to meet Renewable Energy Standard	

PSD ACRE Pilot & Solar for All (S4A) Extension	Pilot program from utilizing $10 Million of one-time COVID relief ARPA funds to support community renewable energy programs for income-eligible utility customers. Developed with a Request for Proposals to the distribution utilities and includes four different programs run by Green Mountain Power, VEC and WEC, VPPSA, and Stowe Electric.
	
	ACRE with Solar for All funding would extend the pilot with average 20% bill savings for residential bills
		P:
		NP:
			P:
			NP:
				P:
				NP:
					P:
					NP:
						Economic
						• Program Participant benefit:
						  ○ ACRE (ARPA): $12-$45/month bill savings to income-eligible utility customers for 5-10 years for roughly 8000 participants
						  ○ ACRE (S4A): 20% bill savings on average
						• Utility / Ratepayer Benefit: Electricity procured at market rate
						
						Social
						• ACRE ARPA Challenge: Limited community connection to project associated with benefit
						
						Environmental
						• ACRE Solar for All Benefit: estimated to reduce carbon emissions 0.055% for Vermont, 0.05% for the New England Region
							Funding / Incentive: $10 Million ARPA, ~$21 Million Solar for All (EPA CPRG)
							
							Beneficiary: Distribution Utilities (ARPA, S4A) to pass to Program Participants;

PSD Renewable Energy for Communities (RE4C) Proposal	Builds off the ACRE pilot structure. Aimed to require distribution utilities to conduct regular requests for proposals to support specific communities (environmental justice focus populations, affordable housing, schools, municipalities). Sought to provide opportunities for these communities to co-design and/or govern projects, projects selected based on scoring developed during PUC process.	*P:* *NP:*	*P:* *NP:*	*P:* *NP:*	*P:* *NP:*	*Economic* • Utility / Ratepayer Benefit: Centralized, competitive project review would seek to reduce project costs, reducing cost shift to non-participants relative to re-tail rate based compensation • Potential Benefit / Cost Considerations: Scoring criteria could consider how projects would deliver financial savings to program participants, be sited according to grid constraints, value energy based on timing of production, etc *Social* • Benefit: Would create pathway for communities to participate in project development and governance • Possible Cost: Would require community capacity to develop proposal *Environmental* • Possible Benefit / Cost Consideration: Project review criteria could consider siting issues such as preferred sites identified by regional and/or municipal plans	*Funding & Incentive:* Utility (ratepayer) investment, likely above-market cost unless grant funding (ex. EPA Solar for All) can bring down the cost *Beneficiary:* Distribution utility qualifying customer participants

NY Value Stack + NY Sun	NY Value Stack and NY Sun are two programs in NY. NY Value stack compensates projects up to 5MW (including storage) based on where and when projects generate electricity (energy value only). This includes all virtual group systems and non-residential >750 kW. Can include other projects under max size. NY-SUN addresses other policy objectives and will support development of 10 GW by 2030. Projects can be up to 7.5MW in size. Provides an upfront per Watt incentive with a variety of adders to further incentivize projects for siting (ex. brownfields), workforce and prevailing wages, multifamily affordable housing, inclusive community solar (LMI, disadvantaged communities ("DACs"), affordable housing, nonprofits / public facilities within and serving DACs) dedicating at least 40% capacity to those populations.	*P:* *NP:*	*P:* *NP:*	*P:* *NP:*	*P:* *NP:*	*Economic* • Utility / Ratepayer Benefit: Transparently calculated energy value based on wholesale prices, timing, and location of energy production (NY Value Stack). Supports market-based valuation of energy • *Social* • Benefit: Creates pathways for variety of communities to participate in project development and governance; Adders under NY SUN for projects which support prevailing wages and workforce • Possible Cost: Would require community capacity to develop proposal • *Environmental* • Possible Benefit / Cost Consideration: Project valuation under NY SUN consider siting locations such as brownfields, etc •	*Funding & Incentive:* (subject to confirmation) NY-SUN supported by New York Clean Energy Development Fund, from a public benefits fund (ratepayer funded)

MA SMART (Solar Massachusetts Renewable Target Program)	The Solar Massachusetts Renewable Target Program (SMART) has a program capacity of 3200 MW for projects up to 5MW. 5% of the 3200 MW is reserved for "low-income community shared" projects which must allocated at least 50% of energy output to eligible customers. The program capacity is allocated via declining block incentives (i.e. initial projects receive greater incentive than later projects). Incentive rate (kWh) based on capacity block, utility service territory, energy, and policy values. Specific adders ranging from $0.0023-$0.06 exist for locations, off-takers (low income property, low income community shared solar, public entity), storage, and pollinators, among others.	*P:* *NP:*	*P:* *NP:*	*P:* *NP:*	*P:* *NP:*	*Economic* • Participant Benefit: Financial incentive (kWh rate) for projects benefiting specific communities (low income properties, low income community shared solar, public entities) • Utility/Ratepayer Cost/Burden: Economic incentives are included in the kWh rate paid for energy, which would cost shift to non-program participants *Social* • Benefit: Creates pathways for variety of communities to participate in project development and governance; • Possible Cost: Would require community capacity to develop proposal • *Environmental* • Possible Benefit / Cost Consideration: Compensation adders to disincentivize siting on Greenfields and incentivize siting in desirable locations (agricultural, solar canopy, landfill, brownfield, building mounted, floating solar); Adders to support pollinators	