Greenhouse Gas Reduction Fund
Solar for All
Solar for All, Virginia Energy (SAVE)
Work Plan
Project Period: 09/01/2024-08/31/2029
Work Plan Submittal: 10/11/2024

Project Title: Solar for All, Virginia Energy (SAVE)
Grant Number: 84089801
Organization Name: Virginia Department of Energy
Geography: Commonwealth of Virginia
Definition of LIDAC: Virginia Energy is using EPA's definition of LIDAC, which encompasses the following four categories, as defined in the Solar for All NOFO: (a) communities identified as disadvantaged by the CEJST mapping tool; (b) a limited number of additional communities identified as disadvantaged by the EJScreen mapping tool; (c) geographically dispersed low-income households; and (d) properties providing affordable housing.

Introduction

Section 1: Project Description

1.1 Overview

The Solar for All: Virginia Energy Program (SAVE or Program) will seek to enable energy savings and increase resilience by expanding access to solar and solar plus storage funding for Low-income and Disadvantaged Communities (LIDAC). SAVE will provide access to solar for more than 15,400 households and reduce carbon dioxide (CO2) emissions by approximately 112,900 tons per year. Solar for All funds will be used to transform the low-income (LI) solar market in Virginia by leveraging additional private capital and supporting solar business formation and expansion. SAVE will address existing market barriers to LIDAC solar development by reducing upfront costs, enabling broader access to leasing and power purchase agreements (PPAs), increasing access to financing for LI homeowners, and removing barriers to interconnection. SAVE will channel funds through multiple sub-programs to incentivize direct ownership, third-party ownership, and subscriber-based solar.

1.2 Project Outputs, Outcomes, and Linkage to the U.S. EPA's Strategic Goals

Environmental Results - Outputs and Outcomes
The SAVE program has been modified to reflect the reduction of funding of 37.6% and change in economic conditions from the time of the initial proposal by reallocating households between the subprograms in a manner to balance household savings, number of households served, and overall emission goals. Assumptions that have been modified and that impact our updated workplan and/or budget include:

- We expect: Residential Solar - 69.63 MW (new installed); Residential Serving Solar - 28.48 MW (new installed)

- Interest rates for solar system for low-income and disadvantaged communities are closer to 9% than the original modelled 7%. While this number will adjust with respect to national interest rates and potentially incentives from other nationwide programs, we have updated our estimates especially for single-family direct ownership based on residential loan numbers.
- The $/W installation cost estimates were updated to reflect increases in labor and materials costs. The original proposal was based upon $3.06/W for residential installations. The revised models indicate a range between $2.95 and $3.25/W with a median of $3.10/W for Virginia.
- The single-family direct-ownership program has decreased in proportion but increased the amount from $5,000 to $7,500 per household to ensure >20% savings. With utilization of the ITC and the grant provided by SAVE, we expect up to 50% bill savings in some instances. The caps on all upgrades have similarly increased.
- The total amount of funding in single-family third-party ownership has increased from $15M to $16M to reflect the ability to serve more households with grants from $5,000 to $5,500 per household to achieve at least 20% savings.
- Multifamily on-site solar has decreased proportionally but increased per household from $5,500 to $6,250. This will allow for the combination of increased costs and potentially some deeper savings for households.
- Community/shared solar off-site has decreased less proportionally (28.6%) to reflect the ability to serve more households with amounts from $5,000 to $5,500 per household to achieve at least 20% savings.

Summary of Programs and Environmental Outputs:

Table 1. Residential Solar (Rooftop or ground-mount adjacent to property) expected outcomes

Program	Households Served	Total MW Installed	CO2 (tons)	CO2e (metric tons)
SF DO	3,200	20.48	22,530	22,493
SF TPO	3,200	20.48	22,530	22,493
MF SPS*	4,480	28.672	31,540	31,489

Table 2. Community or Shared Solar (250 kW - 5MW per installation) expected outcomes

Program	Households Served	Total MW Installed	CO2 (tons)	CO2e (metric tons)
CS/SS	4,550	28.48	36,310	36,241

Table 3. Total Program expected outcomes

Overall Virginia Solar For All	Households Served	Total MW Installed	CO2 (tons)	CO2e (metric tons)
All Programs	15,430	98.1	112,910	112,716

The average installation is 6.4 kWdc based off of modeling of bill savings (using NREL SAM) but may go as high as 8 kWdc, leading to an upper estimate of 122.6 MW of installed rooftop and community solar. All solar generation, except potentially shared solar, will be new solar generation. All avoided emissions were calculated using EPA AVERT Web Edition. Multiple locations were selected for the state but yielded comparable results due to similar policies and regional grid. Conversions to CO2e were calculated using the EPA Greenhouse Gas Equivalencies Calculator with an assumption of lbs of NO2 emissions avoided from AVERT representing NOX emissions avoided. No other avoided gasses were included in the CO2e estimate.

The average household will have a solar installation of 6.4 kW and expect 20% bill savings. As of the submittal of the workplan, we are basing the savings off of an average annual Dominion Energy Virginia bill of $1,379, leading to a $275 per year savings for a typical household. For single-family direct ownership and third-party ownership, the savings may be more than this amount, but there are limitations such as tax liability for ITC use. Savings may also be more substantial in other utility territories with higher service rates.

Virginia Energy estimates SAVE will create approximately 1,950 jobs, with >1,200 direct jobs (80% installation, 20% other) and 750 indirect and induced jobs.[1] VCU estimates for every dollar of distributed solar investment, an additional $0.60 is added to the state economy.[2] Over $90M of solar will be installed due to the financial assistance from this program without including storage and enabling upgrades.

Linkage to U.S. EPA's Strategic Goals:
This award supports the following goals and objectives of the FY 2022-2026 EPA Strategic Plan.

- Goal 1: Tackle the Climate Crisis
    - Objective 1.1: Reduce Emissions that Cause Climate Change

Section 2: Project Design Plan

2.1 Activities to be Conducted

Meaningful Benefit Plan

Delivering Meaningful Financial Savings
A minimum of 20% net electricity cost savings will be realized by participating households, on average. Financial Assistance (FA) will be available for LIDAC households for single-family, CS/SS, and multi-family solar. Further information on FA design is provided in the FA Strategy.

Solar developers requesting FA shall be required to collect and report the customer's total project costs, projected savings, including ongoing payments for solar equipment, and the prior 12 months of electricity bills (or proxy data if data is not available) as proof of potential to achieve

[1] https://www.seia.org/research-resources/solar-market-insight-report-2020-year-review
And Virginia Commonwealth University, Assessing the benefits of distributed solar in Virginia, v.1.2
[2] Virginia Commonwealth University, CURA Solar Fact Sheet

required savings. During the planning period, Virginia Energy will determine how it will assess realized bill savings against program targets. Results of this program performance evaluation will be used to make program adjustments.

Accounting for additional costs in bill savings
The Code of Virginia establishes that solar energy equipment up to 25 kW shall be exempt from state and local taxation.[3] SAVE will work with localities to encourage local solar tax exemptions are adopted. CS/SS projects supported by SAVE funding will be required to provide subscription fees and/or utility bill credits that ensure the minimum 20% savings to customers.

Ensuring savings for master metered systems
To qualify for SAVE FA, owners of master-metered multi-family properties will be required to submit plans for and records of delivering benefits to residents equivalent to 20% of annual electricity costs of the property. Allowable benefits shall align with HUD's May 2023 guidance on the treatment of solar benefits. Such options may include, but are not limited to, bill credits for the value of the energy savings, direct cash payments, or savings-funded building upgrades. Housing providers will be required to sign an affidavit or promissory note declaring that residents shall receive benefits equating to the value of the energy savings.

Refinement of finance model estimates
To meet the required 20% savings, incentives for each FA program will be refined during the SAVE planning phase to account for changes in utility rates, interest rates, and solar development costs, as well as refinement to incentive program designs. Incentives may also be adjusted based on anticipated access to ITC bonuses for LI and energy communities and domestic content requirements. Virginia Energy will re-assess incentive levels at the beginning of year three and year five.

Increasing low-income and disadvantaged community households' access
To ensure the benefits of solar development reach the least served areas of the Commonwealth, Virginia Energy will ensure that 40% of benefits enabled by SAVE will flow to Justice40 communities. Virginia Energy will conduct targeted education and outreach with agency and community-based partners, track the flow of benefits, and make annual adjustments to financial and technical assistance programs, as necessary, to stay on track to achieve this goal. The Reporting Plan specifies Justice40-related metrics Virginia Energy will track and use to inform program adjustments. Virginia Energy has also developed a GIS-based Virginia DAC Designation Tool that allows solar developers and households to view DAC communities and enter addresses to ascertain geographic eligibility to assist enabling projects in DACs.[4]

SAVE will increase accessibility to residential-serving solar by deploying project funds in support of a variety of solar financing and ownership models. By providing a portfolio of programs, SAVE offers LIDAC households the opportunity to select the solar access pathway that best fits their needs and maximizes savings. FA for enabling upgrades will address costly barriers to accessing solar while improving housing quality. Technical assistance and targeted outreach will ensure that FA is not only available and affordable, but accessible as well. Details

[3] https://law.lis.virginia.gov/vacode/title58.1/chapter36/section58.1-3661/
[4] https://experience.arcgis.com/experience/66ec6fada98c4d158f2c94b2d56f8c9a?data_id=widget_27_output_config_0%3A0

on these comprehensive offerings and activities are in the Financial Assistance and Technical Assistance Strategies.

Enhancing Resiliency and Providing Grid Benefits
The MF-SPS Program will offer FA for battery energy storage systems where energy resilience is shown to be of substantial benefit to target populations. Funding selection criteria may include, but are not limited to, exposure to extreme temperature or weather event risks, medically dependent residents, occupant average age, and frequency of power outages. In evaluating relative need for storage incentives by different applicants, Virginia Energy will consider frequency and duration of local grid disruption and potential for storage to relieve local grid constraints, among other factors to be determined in the planning period.

Households and multi-family property owners participating in SAVE will also be informed of and connected to available energy efficiency and demand response program opportunities. These programs can reduce and shift their load in a way that increases their ability to withstand grid disruption by minimizing the grid-supplied energy required to sustain critical operations and can provide opportunities for additional cost savings.

Building Equity through Ownership
A 2019 report from Zillow indicated that properties with rooftop solar installations sold for 4.1% more than comparable residences without them. For a median-valued home, that equates to roughly $9,300.[5] To maximize energy savings and build community wealth within LIDAC communities, SAVE will enable opportunities for direct ownership as well as buyout opportunities for third-party owned systems. Developers will be encouraged to provide defined purchase options during the qualification process.

SAVE will provide FA to cooperatively owned CS/SS projects that provide subscribers with joint ownership and decision-making power. Virginia Energy will promote cooperative ownership by including ownership and involvement of community representatives as a factor in sizing a grant for a project. For customer-owned SF or MF projects, Virginia Energy will encourage solar installers to provide the owner with a third-party certificate that shows the value add of the solar asset and additional energy-related upgrades. This market-facing documentation can help ensure the owner is appropriately compensated for their investment when selling, buying and/or refinancing.

Investing in Quality Jobs and Businesses
SAVE programs will promote high quality jobs in the residential-serving solar industry through program requirements for participating contractors, workforce development grants, and the launch of a Clean Energy Business Accelerator focused on serving disadvantaged businesses. All workforce developed activities will be informed by input from the Clean Energy Workforce Advisory Group.

Program requirements

To promote the creation of good jobs and career pathways within the solar industry, Virginia Energy will require strong labor standards from participating contractors. Specifically, Virginia Energy commits to requiring that contractors participating in SAVE programs will pay prevailing

[5] https://www.zillow.com/research/solar-panels-house-sell-more-23798/

wage and receive accompanying benefits, as required to comply with the Davis-Bacon provisions of the grant.

In Virginia, no person can be compelled, as a condition of employment, to join or not to join, nor to pay dues to a labor union.[6] While residential solar has largely been non-union work in Virginia, there are many unions present and active in the state, several of which have significant potential for growth given the occupations involved in residential solar deployment. Virginia Energy will proactively explore this opportunity for partnership.

In evaluating prospective contractor partners for program implementation, Virginia Energy will prioritize the inclusion of disadvantaged businesses. Prospective contractors will also be required to submit a workforce hiring plan as part of the prospective contactor application. This plan must describe the contractor's approach to hiring individuals from the local areas where they plan to install projects as well as hiring people from disadvantaged communities and workers displaced from fossil fuel industries.

Solar projects leveraging the Commercial ITC and that have maximum net output of over one MW must also meet apprenticeship requirements to access the full base ITC. Specifically, taxpayers must ensure a certain percentage (depending on when construction began) of total construction labor hours for a project are performed by an apprentice and must meet the required minimum overseer-to-apprentice ratio. Through SAVE, Virginia Energy will ensure companies have access to state resources through the Department of Labor and Industries' Registered Apprenticeship program among other resources for creating successful apprenticeship programs.

Workforce development program
Virginia Energy will invest $4.5M into training a ready workforce to support installation of SAV-supported projects, bolstering and filling gaps in the existing workforce development ecosystem. This program is described further in the Technical Assistance Strategy.

Clean Energy Business Accelerator
Virginia Energy and the Virginia Department of Small Business and Supplier Diversity will co-host a new Clean Energy Business Accelerator.[7] The Business Accelerator will provide hands-on support to small solar businesses, with a focus on disadvantaged businesses. This program is described further in the Technical Assistance Strategy.

Financial Assistance Strategy

Addressing Virginia's Diverse Housing Market Through SAVE

Two thirds of LI households in Virginia (those earning up to 80% AMI) live in single family properties, and slightly more than half are renters.[8] Given the diversity of housing types and ownership status for Virginia's LIDAC households, Virginia Energy is committed to implementing programs that provide solar solutions for homeowners and renters in single- and multi-family housing. The SAVE portfolio of programs and budget breakdown is designed to

[6] https://law.lis.virginia.gov/vacode/title40.1/chapter4/section40.1-58/
[7] https://www.epa.gov/sites/default/files/2021-03/documents/best-practice-guide-for-procuring-services-supplies-equipment.pdf
[8] https://www.energy.gov/scep/slsc/lead-tool

provide a diverse solution set to address these diverse opportunities and challenges for accessing cost-saving solar, storage, and enabling upgrades.

The SF-TPO and SF-DO Programs described below are designed to serve the 86% of LI owner-occupied households living in single-family housing. The MF-SPS Program and CS/SS Programs described below are designed to serve the 60% of LI renter households living in multi-family buildings. The CS/SS Program described below is also designed to serve the 40% of renter households living in single-family properties. At least 40% of total SAVE FA will be deployed to support residential-serving solar in Justice40 communities. Details on how Virginia Energy will track, achieve, and report on this commitment are in the Meaningful Benefits Plan and Reporting Plan.

Table 4. Summary of type and estimated level of financial assistance, incentive range, and caps.

Program	Total Financial Assistance	Type of Financial Assistance	$/W Incentive Range	$/Unit Incentive Cap – Solar and Storage	$/Unit Incentive Cap – Enabling Upgrades
SF-TPO	$16M	Capacity-Based Grant	$0.68-$1.10	$5500	$1563
SF-DO	$24M	Capacity-Based Grant	$0.94-$1.50	$7500	$1875
MF-SPS	$28M	Revolving Loan Fund (solar/enabling upgrades) and Grants (storage)	$0.78-$1.25	$6250 (Storage: $10000 max per unit; $1785 avg.)	$1563
CS/SS	$25M	Capacity-Based Grants	$0.55-$1.10	$5500	N/A
GIIF	$9M	Capacity-Based Grants	N/A	N/A	N/A

Financial Assistance for Single-Family Third-Party Owned Solar Leases and PPAs

Type of Financial Assistance for Solar

The SF-TPO Program will offer $16M in capacity-based grants, up to $5,500 per household, to PPA and lease providers. During the planning period, Virginia Energy will explore the feasibility of providing tiered incentives to achieve even greater savings for the lowest-income participants.

The program will establish a network of certified PPA and lease providers. PPA and lease providers must provide equipment maintenance throughout the contract period (which Virginia Energy will monitor through random audits of asset performance) as well as equipment removal and responsible disposal at the end of the contract period.

Virginia Energy will encourage participating providers to offer attractive system buyout options to customers. Virginia Energy's program administrator(s) will assist interested participants in accessing a lump sum payment for the stream of future SREC payments that can be used towards the purchase price of the system. Modeling by Virginia Energy indicates that for the average

customer, annual loan payments for system buyout will be less than half of their annual electric bill savings.

Financial Assistance for Enabling Upgrades
SAVE will offer an additional $5M in grants to be used for roof replacement, electrical system upgrades, tree trimming, or health and safety upgrades necessary to complete solar installations for households earning up to 80% AMI. This supplemental funding will cover enabling upgrades for a subset of eligible participants.

Virginia Energy recognizes the value of investing in the energy efficiency of buildings to minimize the energy load to be met with solar. However, given the significant need for non-efficiency enabling upgrades necessary to install solar, Virginia Energy will focus on integrating with energy efficiency-focused programs, as described in the deployment strategy.

Leveraging of Other Funding
Third-party system owners will monetize the commercial ITC, SRECs and accelerated depreciation benefits, reducing system installation and buyout costs. Homeowners opting to purchase a solar asset after 5 or more years may have access to a lump sum payment for the stream of future SREC payments to reduce their purchase price.

Virginia Energy anticipates SF-TPO providers with experience serving LIDAC households will access bridge financing and low-interest revolving loan funds under the GGRF National Clean Investment Fund (NCIF) competition, in addition to participating in programs that facilitate access to secondary market investors. The FA offered through the SF-TPO Program will complement this larger and longer-term funding.

Eligibility and Targeting
This program is primarily designed for households which cannot monetize the ITC due to a lack of tax liability or do not have access to upfront capital for system installation. All households earning up to 80% AMI are eligible for leases and PPAs, and households earning up to 100% AMI and located in DAC census tracts are eligible for leases.[9]

Deployment Strategy
Through a Virginia Public Procurement Act-compliant process, Virginia Energy will contract with a third-party program administrator of the SF-DO Program.[10]

Virginia Energy will collaborate with many partners to ensure that households supported by SAVE are also aware of and assisted in accessing energy efficiency programs. Key programs include utility energy efficiency programs, federal energy efficiency tax credits, IRA Home Energy Rebates, and WAP. Virginia Energy will coordinate with Virginia's Department of Housing and Community Development (DHCD), which administers the Commonwealth's WAP, to integrate WAP and SAVE program delivery for WAP-eligible residents. Virginia Energy will be sponsoring the state's new IRA Home Energy Rebate programs and is committed to creating program synergies that maximize overall benefits to residents. While the low-income definitions

[9] Incentives for PPAs only provided to households earning up to 80% AMI because currently only LI Virginians in investor-owned utility service territory are able to enter into PPAs, per Code of Virginia | § 56-594.02-A.3.
[10] Code of Virginia | § 2.2-4300 Virginia Public Procurement Act

vary in each of these programs, Solar for All generally requires higher income (80% AMI vs 60% SMI) than these programs, and possibilities for program synergies will be explored during the planning period.

Financial Assistance for Single-Family Direct Ownership of Solar

Type of Financial Assistance for Solar

The SF-DO Program will offer $24M in capacity-based grants, up to $7,500 per household. The grant will buy down the upfront cost of the project such that households will realize 20% bill savings net of monthly loan payments, on average. The program will establish a network of certified solar installers and lenders.

Approved lenders to provide solar loans that will cover project costs not covered by the grant or other funding sources. Virginia Energy will work with lending partners, consumer advocates, and other stakeholders to establish requirements for provision of financial coaching and other consumer education as well as to explore alternative underwriting approaches (e.g., no credit or income requirement) that would expand eligibility of borrowers with low or no credit score. Solar installers will provide warranties that include no-cost maintenance on underperforming equipment (which Virginia Energy will monitor through random audits of asset performance) as well as maintenance contract options for customer-owned systems. Virginia Energy will explore the option of including solar insurance during the planning period.

Financial Assistance for Enabling Upgrades

The SF-DO Program will offer an additional $5M to be used for roof replacement, electrical system upgrades, tree trimming, or health and safety upgrades necessary to complete solar installations for households earning up to 80% AMI. This supplemental funding is estimated to cover enabling upgrades for a subset of eligible participants. For energy efficiency improvements, Virginia Energy will focus on integrating with energy efficiency-focused programs, as described in the deployment strategy.

Leveraging of Other Funding

The SF-DO Program will provide participating homeowners with guidance on accessing the residential ITC and Virginia's solar property tax exemption, as determined during the planning period.

Virginia Energy is hopeful that the solar lending facilitated through the SF-DO Program may be made even more affordable by a national loan loss reserve for consumer clean energy loans established through NCIF, in addition to participating in programs that facilitate access to secondary market investors.

Eligibility and Targeting

The SF-DO Program is primarily designed for households which can monetize the 30% solar ITC, which is more likely the higher range of the income eligibility. All households earning up to 80% AMI, and households located in DAC census tracts earning up to 100% AMI, are program eligible.

Deployment Strategy

Through a Virginia Public Procurement Act-compliant process, Virginia Energy will contract with a third-party program administrator for the SF-DO Program. Virginia Energy recognizes the benefits that would come from partnering with a program administrator with deep experience in inclusive clean energy lending, including that SF-DO funds could support loans that cover energy efficiency and non-energy measures, like roof replacement. This will be valuable for program participants who need financing to cover costs of enabling upgrades. Lender partners may include lenders currently active in solar lending that can expand to serve lower-income or credit-constrained borrowers as well as lenders that are already serving these homeowners but will expand into solar lending (e.g., local credit unions).

Virginia Energy anticipates that few participants in this direct ownership program will be WAP eligible. Virginia Energy will work with DHCD and other key stakeholders to coordinate program delivery to the extent there is overlap in program participation, but the primary focus will be on coordinating with utility energy efficiency programs, IRA Home Energy Rebate programs, and educating homeowners on expanded energy efficiency tax credit options.

Financial Assistance for Onsite Solar and Storage for Multi-family Affordable Housing

Type of Financial Assistance for Solar and Storage

Virginia Energy recognizes that MF affordable housing is a complex market segment, with a diversity of public and private funding sources, building sizes, types of owners and developers, and energy metering arrangements. The MF-SPS Program will provide flexible FA to address these diverse needs and opportunities. This FA will complement the $4.8M in pre-development grants to MF property owners included in the Technical Assistance Plan.

The MF-SPS Program will allocate $28M to a revolving loan fund for low-cost bridge and permanent loans for new onsite solar at multi-family affordable housing properties. The financing will support arrangements including projects directly owned by the property owner, projects owned by third parties holding PPAs with property owners, and onsite projects to which building residents are subscribers. To be eligible, projects must deliver at least 20% savings (or equivalent benefit) to residents, as described in the Meaningful Benefits Plan. While FA details will be finalized during the planning period, Virginia Energy anticipates that MF-SPS financing may be subordinated to other financing and may cover up to 50% of total project costs.
The MF-SPS Program will also offer $8M in capacity-based grants for battery energy storage, to be paired with a limited number of solar projects. In evaluating relative need for storage incentives by different applicants, Virginia Energy will consider frequency and duration of grid disruption in the relevant property's location and potential for storage to relieve local grid constraints, among other factors to be determined with stakeholders in the planning period. Storage installers must provide warranties that include no-cost maintenance on underperforming equipment, which Virginia Energy will monitor through random audits of asset performance.

Financial Assistance for Enabling Upgrades

The MF-SPS Program will allow up to 20% of the financing for an individual project, and up to $5M in aggregate for all projects, to be used for roof replacement, electrical system upgrades, tree trimming, or health and safety upgrades necessary to complete solar installations. Installation of submetering in master-metered properties to enable net crediting will be considered an enabling upgrade.

Leveraging of Other Funding

Property owners and tenants will benefit from the ITC (including relevant bonus credits) either via the property owner monetization for direct ownership, or the third-party monetization for MFSS. Property owners without tax liability can use direct pay and utilize the bridge loan to defray upfront costs.

The MF-SPS Program will be designed to complement the federal Low-Income Housing Tax Credit Program and other state-sponsored housing finance programs such that SAVE funding supplements these other sources of funding to enable project viability and maximize benefits for LIDAC households. MF-SPS projects can also leverage Commercial Property Assessed Clean Energy in jurisdictions that have enabled C-PACE through the Virginia Energy statewide C-PACE Program. Several proposed uses of NCIF funds could also complement this program. Virginia Energy expects that MF lenders active in Virginia will be capitalized through NCIF to expand their clean energy lending activities. Market awareness and lessons learned through SAVE will inform that expansion.

Eligibility and Targeting

Non-profit or tax-exempt owners of housing properties with four or more residential units and rents not exceeding 30% of 80% AMI for at least half of residential units and with an active affordability covenant from an approved federal or state housing assistance program are eligible to apply. This includes the vast majority of projects receiving LIHTCs in Virginia. Non-profit or tax-exempt owners of unsubsidized affordable housing with four or more units and rents not exceeding 30% of 80% AMI for at least half of residential units are also eligible to apply. Virginia Energy will consider allocating a subset of funding in MF-SPS Program FA to projects at public housing properties and will conduct dedicated outreach during the planning period to public housing authorities to determine feasibility.

Deployment Strategy

Through a Virginia Public Procurement Act-compliant process, Virginia Energy will contract with an external administrator for the MF-SPS Program. Virginia Energy will work with the external administrator to spur program demand through close coordination with public agencies, non-profit organizations, and financial institutions that have longstanding relationships multi-family affordable housing developers and owners.

One such entity is DHCD, which is a key affordable housing lender via the Affordable and Special Needs Housing (ASNH) program, among others. Another is Virginia Housing, the Commonwealth's housing finance agency, which also has several financial assistance programs for multi-family housing, including the Low-Income Housing Tax Credit (LIHTC) program.[11] Both the ASNH and LIHTC programs are actively promoting energy efficient buildings, and their project pipelines include many prospective SAVE MF-SPS participants. Virginia Energy also envisions coordinating with private affordable housing lenders, and Community Development Financial Institutions (CDFIs) in particular, to reach prospective program participants as well as co-invest in projects.

Financial Assistance for Community and Shared Solar Projects

Type of Financial Assistance for Solar

[11] Code of Virginia | Virginia Housing Development Authority Act

The Community and Shared Solar (CS/SS) Program will offer $25M in capacity-based grants (or potentially production-based grants, if determined to be feasible within program rules) for community-scale solar projects ranging from 250 kW to 5MW that deliver at least 20% bill savings to LIDAC household subscribers. A formula-based approach will be used to determine the awards size for each capacity-based grant, including factors such as percentage of LI households served, level of savings to be delivered for LI subscribers, ownership and involvement of community representatives and/or disadvantaged businesses, and other available financial assistance (ensuring total funding to a project does not exceed 100% of project costs).

Leveraging of Other Funding
Developers can benefit from the commercial ITC, accelerated depreciation, and sale of SRECs. Those without tax liability can use the direct pay mechanism. Many projects may also benefit from ITC bonus credits that can increase the ITC to up to 70% of project costs. SAVE capacity-based grants will be designed to supplement other sources of funding and ensure developers receive a maximum of 100% of total benefits from all credits, bonuses, and program funds. Virginia Energy will seek to partner with other successful Solar for All applicants, as available, to connect eligible projects with additional FA in the form of pre-development grants, construction financing, ITC and interconnection bridge financing, and permanent debt financing.

Eligibility and Targeting
To apply for funding under this program, developers must propose projects (<5MW) in which at least 49% of subscribing households have household income no greater than 80% AMI, LIDAC subscribers will realize at least 20% bill savings, and at least 50% of the power generated from the system is delivered to residential customers in the same utility territory as the facility. Additional priority may be given for community-based nonprofit owned or disadvantaged-owned and developed projects. During the planning period, Virginia Energy will explore the possibility of encouraging or requiring Community Benefit Agreements (CBAs) during shared solar project siting.

Deployment Strategy
Virginia Energy plans to internally manage the CS/SS program and will coordinate with successful Solar for All and NCIF applicants, as applicable, to ensure that other FA is known to and accessed by developers in Virginia. Virginia Energy will collaborate with IOUs, rural electric cooperatives, municipal utilities, and other stakeholders to define and develop solutions to policy and regulatory barriers to complement CS/SS FA.

Financial Assistance for Grid Infrastructure and Interconnection
Residential solar installations may be subject to significant additional expense if distribution and transmission related infrastructure upgrades are deemed necessary to mitigate any voltage, power quality, and safety related issues. Larger systems face additional challenges with interconnection and grid infrastructure improvements, including interconnection cost transparency, interconnection study timelines, construction improvement timelines, and cost allocation methods.

Virginia Energy will establish a Grid Infrastructure and Interconnection Fund (GIIF) to help address these challenges. The $9M GIIF will provide grants and/or loans (to be determined during the planning period) to cover the interconnection-related or front-of-the-meter grid

infrastructure (e.g., distribution lines, transformers, grid security equipment) costs for select projects eligible for financial assistance under the other SAVE programs.

As part of GIIF administration, Virginia Energy will also assist stakeholder in navigating interconnection requirements and resources, such as ensuring developers are aware of Dominion's hosting capacity map for residential generation that visualizes the remaining capacity for all transformers in Dominion's distribution grid.[12] Virginia Energy will competitively procure a third-party engineering firm to provide technical assistance on the design and administration of the GIIF, including technical review of applications. Virginia Energy and its GIIF partner will work with local utilities to ensure grant funded distribution system upgrades are designed to provide capacity for additional rooftop solar installations in the surrounding neighborhood.

Project-Deployment Technical Assistance Strategy

Marketing, Education and Outreach (MEO) Plan

Virginia Energy will dedicate $4.5M for MEO. The SAVE MEO strategy centers on leveraging partners to reach prospective program participants. Given the growing set of energy improvement incentives available to residents and many competing priorities for customers' attention, Virginia Energy recognizes that MEO messages and materials should provide information on all energy improvement programs to those individuals. Therefore, the SFA MEO funding will be channeled through a new, statewide "one-stop-shop" hosted within Virginia Energy. The one-stop-shop will serve as a central hub for consumers and contractors about why and how to participate in programs providing support for accessing energy efficiency, distributed solar and energy storage, and EV charging projects. It will also provide accurate and standardized materials for use by local governments, CBOs, and other MEO partners. Programs covered will include the portfolio of SAVE programs, Home Efficiency Rebates, Home Electrification Rebates, WAP, utility programs, local energy programs, and clean energy financing options.

Virginia Energy is using Virginia's allocation of Energy Efficiency and Conservation Block Grants (EECBG) to develop and implement a strategic energy MEO strategy, which will establish the objectives, governance, and initial activities of the one-stop-shop. Virginia Energy has already convened an Energy MEO Advisory Group that will continue to expand and inform one-stop-shop development. Virginia Energy considers this a seed investment in the concept, with MEO funding from other programs, including SAVE, funding its expansion. While this initial funding for this one-stop-shop is not permanent, Virginia Energy hopes that the proof of concept encourages consideration of state or utility funding as a permanent source.

The one-stop-shop will launch and maintain a website with information specific to a user's role in one or more programs, e.g., contractor/developer, CBO, locality, laborer, renter, single-family homeowner, or multi-family property owner. The one-stop-shop will have a program sorting tool to further help individuals navigate and take advantage of available programs (e.g., based on their electric provider and estimated income).

[12] Dominion Distribution Grid Hosting Capacity Map

In addition to the website, Virginia's energy one-stop-shop will provide a hotline for assistance in navigating programs and regionally focused expert staff that can coordinate and train local government, nonprofit, and other community-facing staff or volunteers on energy programs. The one-stop-shop administrator will provide funding to partners for participating in marketing and outreach activities. Further details on collaboration between the energy one-stop-shop and more geographically focused partners are provided in the Equitable Access and Meaningful Involvement Plan.

Multi-family Pre-Development Support

Virginia Energy will dedicate $4.8M in pre-development grants to multi-family property owners. These pre-development grants will allow prospective applicants for MF-SPS FA to receive third-party guidance on solar and storage options for their property (based on e.g., metering arrangement and roof/land availability) as well as assistance with system sizing, siting, engineering, and financial planning.

Skilled Workforce Development and Investment Plan

SAVE will promote high quality jobs in the residential-serving solar industry through program requirements for participating contractors, investment in a new workforce development grant program, and launch of a Clean Energy Business Accelerator focused on serving disadvantaged businesses. All workforce developed activities will be informed by input from the agency's Clean Energy Workforce Advisory Group.

Program requirements

To promote the creation of good jobs and career pathways within the residential-serving solar industry, Virginia Energy will require strong labor standards from participating contractors in accordance with federal and state standards while balancing worker compensation and industry success. Standards are described in the Meaningful Benefits Plan.

Workforce development program

Virginia Energy will invest $4.5M into training for residential solar-serving workers in DACs, filling gaps in the existing workforce development ecosystem identified through a Residential Energy Efficiency and Solar Gap Analysis commissioned by Virginia Energy. The program will complement an Energy Efficiency Workforce Development Program that Virginia Energy is launching to ensure a ready workforce to deliver Home Energy Rebate-supported projects.

Clean Energy Business Accelerator

Virginia Energy and the Virginia Department of Small Business and Supplier Diversity (DSBSD) will co-host a new Clean Energy Business Accelerator.[13] The Business Accelerator will provide hands-on support to disadvantaged-owned solar businesses. The Accelerator will provide eligible solar firms with business management support though DSBSD's existing business coaches as well as external partners, such as Virginia's Small Business Development Center. DSBSD business coaches will help eligible businesses access low-cost working capital through the Virginia Small Business Financing Authority's Loan Fund and other small business financing programs. As part of the Accelerator, Virginia Energy and DSBSD will host a cohort-based mentorship program through which participating businesses will receive real-world

[13] Best Practice Guide for Procuring Services, Supplies, and Equipment Under EPA Assistance Agreements; https://sbsd.virginia.gov/virginia-small-business-financing-authority/

guidance from experts in business management generally and strategies for success in Virginia's solar industry specifically (e.g., customer acquisition).

Project Siting and Permitting Support
As previously stated, Virginia Energy and UVA currently provide TA to localities for reducing barriers to solar development using SEP Annual Formula Grants through US DOE to fund a SolSmart TA partnership with UVA, providing no cost TA to local governments to adopt best practices in permitting and inspection processes, planning and zoning, government operations, community engagement, and market development.[14] Virginia Energy also encourages local adoption of the SolarAPP+ software to streamline and automate local residential rooftop solar installations. Currently, two communities in Virginia are using SolarAPP+. Virginia Energy will continue to support communities participating in SolSmart and promote SolarAPP+, with increased focus on DACs. This work, not funded by Solar for All grant funding, will support Solar for All deployment.

Program Planning, Analysis, and Research
Virginia Energy will dedicate $1.9M to program planning, analysis, and research. Under this area of work, the team will allocate funds for technical assistance during the planning year and policy analysis and research. Virginia Energy will pursue research and analysis, with the aid of contracted research partners, on topics that require additional insight and support to ensure successful program implementation. These topics may include but are not limited to net metering, interconnection, market barriers, CS/SS policies, transmission and distribution, and upgrade costs. Virginia Energy will also utilize the support of The National Renewable Energy Laboratory (NREL) for additional technical support.

Virginia Energy will contract a firm with technical expertise to guide and support the program planning year. This firm will aid in administrative planning, technical support, stakeholder engagement, and additional capacity as internal Solar for All staff are hired.

Virginia Energy will utilize its internal policy team to help address non-financial barriers to solar. This work will help address barriers discussed in the Distributed Solar Market Strategy, including policy and regulatory topics such as net-metering caps, virtual net metering, asset leasing and ownership, community solar policies, and allocating transmission and distribution upgrade costs.

Virginia Energy will also use these funds to provide stakeholder participation stipends. These stipends will ensure time spent in stakeholder groups is compensated as needed. These stipends will be managed by our program planning contractor. Additional details on stakeholder participation can be found in the Equitable Access and Meaningful Involvement Plan.

Equitable Access and Meaningful Involvement Plan

Partnerships for Customer Acquisition and Community Education
As stated in the MEO Plan under the Technical Assistance Strategy, the Virginia Energy-hosted energy one-stop-shop will provide a robust website and hotline to help residents navigate energy

[14] SolSmart Designation Criteria

programs as well as regionally focused expert staff that can coordinate and train local government and nonprofit staff on energy programs.

In addition to conducting MEO with and through a broad set of partners, including local need-based assistance providers, Virginia Energy will leverage relationships with other need-based program administrators at state agencies to proactively reach previously income-qualified households. Virginia Energy has existing working relationships with the energy assistance program manager at Virginia Department of Social Services (DSS) and WAP program manager at DHCD. Virginia Energy will expand these interagency relationships to include additional need-based program managers, including for TANF and SNAP. Virginia Energy will establish communication channels between these other need-based assistance programs and SAVE, to include pursuing interagency data sharing agreements to safely share income-verified participant information to inform targeted outreach.

In addition to SAVE MEO efforts that raise awareness about solar and SAVE, solar developers and installers participating in SAVE (in the SF programs, through a competitively selected certified network) will conduct customer acquisition. Companies will not be required to serve all of Virginia, but Virginia Energy will consider Commonwealth-wide geographic coverage when certifying and recruiting developers and installers to participate in SAVE. Prospective certified SF installers will provide a customer acquisition strategy (to include, e.g., group purchase discounts and referral awards) as part of the certification process. Virginia Energy will connect solar companies with the one-stop-shop staff and partners to facilitate collaboration.

20% Savings Calculation

Virginia Energy will design the Solar for All programs to enable at least 20% savings for the typical participating household. The 20% savings will be calculated based on the average monthly electric bill. Whether or not the solar is able to cover 100% of electricity usage, SAVE programs will be designed to reduce the average bill by a minimum of 20%. Savings may include other programmatic and energy benefits as determined during the planning period. Additional modeling and stakeholder engagement will be conducted during the planning period to ensure the savings calculations are achievable for the typical participant. During years 2-5, Virginia Energy will conduct random samplings of households to ensure our savings targets are being met.

Income and Location Verification for Program Eligibility

All households will need to prove income eligibility to participate in a SAVE program. Households earning income up to 80% AMI will only need to prove income eligibility, while households earning 80-100% AMI will need to prove both income and location of residence.

Virginia Energy intends to set income verification requirements that minimize burden on prospective participating households and contractors while also ensuring public funds are responsibly stewarded. A key strategy for doing so is to leverage other, existing income verification processes. Virginia Proof of residence in an affordable housing property (per EPA's definition) will suffice, as will proof of participation in another state or federal need-based program. Virginia Energy anticipates that many prospective participating households earning up to 60% AMI will be able to prove income eligibility by providing a benefit verification letter from in another program. As described above, Virginia Energy will also work with state agency partners to explore establishing data sharing protocols that would enable Virginia Energy and/or

its partners to verify income eligibility without requiring documentation from individual households.

For households that cannot prove residence in an affordable housing property or participation in another state and federal need-based programs, Virginia Energy will accept various other income verification options. Options include providing recent pay stubs, tax returns, W-2 tax statements, IRS Form 1099, or employer proof of income letters. Households may choose which income verification method to use. For households earning 80-100% AMI that also need to provide proof of location of residence, acceptable documentation includes utility bills, tenancy agreements, a valid driver's license, and potentially other official documentation associating customer and address.

Culturally Appropriate and Responsive Outreach to Diverse Communities
Virginia Energy will ensure MEO materials and strategies are culturally appropriate and responsive by incorporating feedback from the Energy MEO Advisory Group and regional one-stop-shop staff. Virginia Energy and the MEO Advisory Group will also work with the EPA Region 3 Environmental Justice Thriving Communities Technical Assistance Center (EJ TCTAC) to seek guidance on community engagement, meeting facilitation, and translation and interpretation services for limited English-speaking participants, thus removing barriers and improving accessibility for communities with environmental justice concerns. The one-stop shop will provide a subset of all materials in several languages and provide additional translations upon request.

Regional one-stop-shop staff and MEO partners will be able to edit standardized program materials or focus on specific program areas in response to local conditions. For example, regional and local staff can incorporate locally available programs into template outreach materials. They may focus on solutions for specific housing types (e.g., manufactured homes or multi-family housing) or focus on certain outreach strategies, like in-person events and direct mail to congregate residents in rural areas with limited broadband internet access. All webinars and videos will include closed captioning to ensure accessibility.

Inclusive Program Design, Operations, and Governance
To inform application design, Virginia Energy received dozens of formal comments from a diverse group of organizations and individuals who also submitted formal letters of support. Virginia Energy will convene a Solar Advisory Group to inform program design and implementation. Virginia Energy will seek a diverse set of perspectives on the Solar Advisory Group, such as individuals representing financial institutions, educational institutions, solar organizations, LIDAC-serving CBOs, local or regional government leaders, consumer advocates, Tribal Nations, and electric utilities.

The Solar Advisory Group will be convened approximately quarterly during the planning period and annually (or more frequently, as requested and necessary) during the implementation period. The group will provide input on FA and TA offerings, MEO plans and materials, and ongoing program evaluation and revision, including ongoing adjustments to program governance processes. Meetings will be open to the public and accept public comment. Virginia Energy will use all input to make final design decisions.

Meaningful Involvement of American Indian Communities

There are seven federally recognized Tribal Nations and three state-recognized Tribal Nations in Virginia. Virginia Energy has met with many representatives of Tribal Nations during the SAVE application development process and will provide program updates and solicit feedback from Tribal representatives throughout the program, including through the invitation to have representation on the Solar Advisory Group.

Virginia Energy will ensure Tribal Nations are served during SAVE implementation. SAVE reports will include the number of tribal identifying households that have received assistance through the program, and those data will be shared with Tribal Nations to inform outreach strategies and impact.

Section 3: Fiscal Stewardship Plan

Policies and Procedures for Preventing Fraud, Waste, and Abuse

Virginia Department of Energy submits an annual assessment to the Virginia Department of Accounts (DOA) which includes the annual audit from the Internal Auditor. This annual assessment is called Agency Risk Management & Internal Control Standards (ARMICS). One of the purposes of ARMICS testing is to monitor the fiscal processes and procedures; mitigate potential organizational risk and fraud risk. Virginia Energy has successfully submitted the reports annually in compliance with the mandates.

Virginia Energy will set caps on the $/W cost of participating solar providers to ensure they are not raising prices due to receiving an incentive. All program income from loan-based offerings will return to the loan fund and continue to be deployed under the same guidelines.

Consumer Protection Plan

Virginia Energy is enthusiastic about expanding access to benefits from solar, including immediate financial savings, wealth building through asset ownership, and forming credit history, while also mitigating potential risks to consumers. The primary consumer protection strategies will be to raise awareness about the potential for solar-related scams and to place industry-leading requirements on solar developers and program implementers.

For the single-family serving programs, Virginia Energy will promote high-quality partners by limiting deployment of SAVE funding to projects developed by a certified contractor network. As part of the certification process, Virginia Energy will ensure business practices comply with (as applicable) the Virginia Consumer Protection Law, financial regulations and statutes enforced by the SCC, and federal laws such as the Truth in Lending Act. Virginia Energy will work with partners to ensure transaction documents are easily understandable and all prospective participants receive a standardized Solar Consumer Protection Guide.[15] Contractors must be licensed and insured and not have a negative BBB rating. During the program planning period, Virginia Energy will also explore requiring that contractors have a recent financial audit and are bonded. Virginia Energy will conduct periodic inspections of installed projects as well as spot-checks of participant bills to ensure that consumer savings are materializing as expected.

[15] Models include the California Solar Consumer Protection Guide, Nevada's Consumer Protections in the Renewable Energy Bill of Rights, and SC Renewable Energy Systems Standard Disclosure Form

Virginia Energy will seek feedback via post-installation surveys, and contractors must have a reliable and effective resolution process in place to address complaints at any point during the solar asset's lifetime. Program participants will also be able to submit complaints via the SAVE website or the energy one-stop-shop. Corrective actions may be administered given recurrent grievances, up to suspension or disqualification from the program.

Specific consumer protections shall include no down payments; industry-standard equipment, workmanship, and roof penetration warranties; system performance/production guarantee; ongoing maintenance options for customer-owned systems; no collateral beyond the solar system; and no penalties for prepayment. All solar installations must utilize equipment that have been tested and certified by a federal Occupational Safety and Health Administration Nationally Recognized Testing Laboratory and installed in compliance with manufacturer specifications. CS/SS programs will not allow upfront subscription or flat monthly fees that do not vary with delivered kWh, cancellation or late fees, participation credit checks, required credit card or bank account enrollment, or unreasonably long initial subscription terms. Such providers must provide consolidated billing where feasible and written communication of billing processes.

Any program implementation infrastructure that involves consumer information will be secured and access to individual records will be on a need-to-know basis. Virginia Energy will work with stakeholders during the planning period to finalize design features that will protect consumers, including exploring best practices identified by solar and consumer advocacy organizations.

Section 4: Timeline and Milestones

Planning Period - Quarter one

Virginia Energy will hire an external program planning consultant, which will manage the stakeholder participation stipend fund. Virginia Energy will also hire two new staff: a SF DO, SF TO, and MF SPS Programs Coordinator and a CS/SS & GIIF Program Coordinator. Virginia Energy will establish the Solar Advisory Group that will provide diverse perspectives on overall SAVE program design, with some participants (e.g., from nonprofit groups) receiving stipends to enable their participation, if requested. Virginia Energy will meet with representatives from Tribal Nations to understand their preferred means of partnership under SAVE and connect with organizations serving Tribal Nations, as requested. Virginia Energy will meet with the EPA Region 3 EJ TCTAC to understand what role that entity can play in supporting meaningful CBO involvement in the program.

Virginia Energy will collect and incorporate input into RFPs for SF-DO, SF-TPO and MF-SPS program administrators and GIFF technical advisor.

Virginia Energy will begin to shape guidelines for the CS/SS Program and will meet with solar developers, rural electric cooperative Boards and municipal utilities, including those providing CC/SS ownership models, to inform CS/SS policy and regulatory priorities and enable cost-saving models. Virginia Energy will meet with electric cooperatives to begin an ongoing dialogue on enabling residential PPAs for their customers and assist rural electric cooperatives in establishing CS/SS programs that deliver 20% cost savings to LIDAC households.

Virginia Energy will meet with both public and private sector labor partners to inform labor requirements for participating firms in each program. Virginia Energy will prepare an initial

research and analysis plan with priority topics to commission research and/or convene working groups around. The plan will be executed and implemented throughout the performance period, as needs arise.

Virginia Energy will develop guidelines for the solar workforce development grant program and work with the Department of Small Business and Supplier Diversity to plan for the Clean Energy Business Accelerator.

Virginia Energy will raise awareness around solar leasing through meetings with industry associations, solar companies and other interested parties. Virginia Energy will host an information session for localities about the SolSmart program, inviting new localities to participate, and will provide solar permitting resources and dedicated TA to a broader set of localities throughout the program.

Planning Period - Quarter two
Virginia Energy will finalize and post RFPs for the SF-DO, SF-TPO and MF-SPS program administrators as well as the GIFF technical advisor, and an evaluation team will determine the top choices. Virginia Energy will hold convenings around grid infrastructure and interconnection, as necessary based on the findings of the SCC-hosting working group, to inform the GIIF program guidelines and interconnection TA.

Virginia Energy will hold scoping meetings to inform development of the Solar for All program management system, including functionality to ensure Virginia Energy can meet all compliance and reporting requirements (e.g., progress toward the Justice40 target).

Virginia Energy's Energy Outreach Coordinator will work with the existing Energy MEO Advisory Group to begin integrating SAVE with other energy programs, including assessing how to ensure SAVE participants are aware of and have assistance accessing available energy efficiency and demand response programs.

Virginia Energy will meet with agency partners administering need-based assistance programs to explore opportunities to integrate with SAVE (e.g., through data sharing, cross promotion) and will finalize income verification requirements for households that are not eligible via participation in another program. Virginia Energy will continue working with DSBSD to plan for the Clean Energy Business Accelerator.

Planning Period - Quarter three
Virginia Energy will hire two new staff: a Solar Workforce Coordinator and an Evaluation, Reporting & Compliance Analyst. Virginia Energy will finalize contracts with the SF-DO, SF-TPO and MF-SPS program administrators as well as the GIFF technical advisor. Virginia Energy and these external partners will host detailed program design workshops with the Solar Advisory Group to inform all programs and provide public comment opportunities on design decisions. Virginia Energy will also convene meetings with additional program-specific stakeholders, including with CDFIs and consumer advocates around responsible lending/contracting in the SF programs and with PHAs and other multi-family property owners to meet diverse needs through the MF-SPS Program.

Virginia Energy will set program incentive levels, using meetings with stakeholders to validate assumptions. Virginia Energy will work with NCIF and CCIA awardees to identify opportunities to align SAVE financial assistance with other GGRF-supported funding and financing. Virginia Energy will develop market transformation metrics and data collection processes to assess program contribution to long-term market transformation.

Virginia Energy's MEO contractor will hire regional MEO coordinators. Virginia Energy will develop MEO materials with user feedback from the Energy MEO Advisory Group and Solar Advisory Group as well as coordinate with other consumer-facing energy programs (e.g., Home Energy Rebates). Virginia Energy will work with the Workforce Advisory Group to finalize the solar workforce development program guidelines, launching the program by the end of the year. Virginia Energy will continue working with VSBFA to establish roles and responsibilities for the Clean Energy Business Accelerator.

Planning Period - Quarter four

Virginia Energy will revise the workplan for submission to the EPA early in quarter four, likely October 2025 (depending on First Amendment approval timeline). Virginia Energy will work with EPA on any edits to finalize the workplan by the end of the planning period.

Virginia Energy will work internally and with external program administrators to finalize all program guidelines in preparation for launch of the portfolio of SAVE programs, coordinating closely with the Solar Advisory Group. Virginia Energy will finalize the program management system to enable full federal grants compliance at program launch.

Virginia Energy will ensure all programs have adequate consumer protections in place and processes, O&M requirements for participating solar developers/installers to ensure projects are maintained to produce the anticipated level of power, and adequate processes for collecting requisite data for performance evaluation and reporting.

Virginia Energy will finalize all SAVE MEO materials utilizing community feedback and the incorporation of SAVE into the energy one-stop-shop, including through a program website, coordinating closely with the MEO Advisory Group.

SAVE Implementation Period - Technical Assistance dispersal (years two – five)

MEO efforts will be ongoing through year five. Virginia Energy will hold quarterly meetings of the Energy MEO Advisory Group to inform ongoing MEO.

MF pre-development grants will become available when the MF-SPS Program launches at the beginning of year two, with grants available on an ongoing basis. Workforce development funding will be available on an ongoing basis, and the program guidelines will be updated based on market needs and Workforce Advisory Group feedback.

The Clean Energy Business Accelerator will support small businesses through year five. The Research and Analysis plan will be updated annually, with needs for research, analysis and other programmatic TA (e.g., market transformation assessment) budgeted each year. All funds will be awarded by quarter three of year five and all commitments liquidated within 120 days after the end of the performance period.

SAVE Implementation Period - Financial Assistance dispersal (years two – five)
Dispersal of financial assistance funds begin for all programs in the first quarter of year two. Virginia Energy anticipates that approximately 25% of financial assistance funds will be allocated each year for each program. All storage and enabling upgrade funds shall be disbursed, as applicable, in conjunction with qualifying solar projects.

Financial assistance from all programs will be dispersed through year five on a rolling first come, first served application basis, with the exception of any carve-outs that are established during the planning period. All funds will be awarded by quarter three of year five and all commitments liquidated within 120 days after the end of the performance period. The RFQs for SF-DO certified lenders and solar installers and for SF-TPO solar lease and PPA providers will be re-issued at the end of the third year to allow for new entrants.

Virginia Energy will re-assess incentive levels at the beginning of year three and year five and will conduct annual assessments of financial assistance to inform program adjustments. Virginia Energy will hold annual meetings, at a minimum, with the Solar Advisory Group to inform ongoing program evaluation and revision, including ongoing adjustments to program governance processes. Outcome evaluations shall be conducted annually as described in the Reporting Plan. At the end of the performance period, Virginia Energy and EPA will negotiate a close out agreement for use of program income from the revolving loan funds.

Section 5: Reporting Requirements

Virginia Energy will report all required project information to EPA through the SEP Grants and Contracts Program Manager and the Office of Financial Services. State Energy Office staff will work with project sub-recipients and contractors to collect, aggregate, and report on program performance in accordance with federal requirements. Semi-annal reports and the Final Report shall include the metrics and reports requested by EPA through the terms and conditions and Closeout Agreement.

Performance reports will assess progress on expected programmatic outcomes. Virginia Energy will include as assessment of financial assistance and technical assistance fund delivery in the reports. The reports will be publicly available and will inform ongoing program adjustments. All evaluations shall be conducted in accordance with the EPA's principles of relevance and utility, rigor, independence and objectivity, transparency, ethics and equity.

In addition to Semi-Annual and Final Performance Reports, Virginia Energy will submit the required semi-annual transaction-level and project-level data in accordance with information collection instruments approved through GGRF Accomplishment Reporting (EPA ICR Number 2783.01, OMB Control Number 2090-NEW).

Section 6: Budget Narrative

6.1 Project Budget

[redacted]

[redacted]

[redacted]

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[redacted]

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Appendix

Example Calculation of Savings (SF-DO Program)

Electricity bill savings (percentages) model results for Single-Family Direct Ownership utilizing 30%ITC within the first four years of the installation towards payments and $7,500 grant. Systems modeled are 5kW, 6.4kW, and 8kW for a typical customer in Dominion Energy Virginia territory (baseline bill with fixed and variable costs and net metering). RECs are included within the model, as well as maintenance costs and P&I payments. Model is NREL SAM with 20-year fixed-rate loan with VA specific tax rates.

5kW	Install Price ($/W):	$ 2.95			$/W:	$ 3.10			$/W:	$ 3.25		
	REC ($/Mwh):	25	30	35		25	30	35		25	30	35
	8.0%	49%	50%	50%	8.0%	45%	46%	46%	8.0%	43%	43%	43%
Interest	8.5%	47%	47%	48%	8.5%	43%	43%	43%	8.5%	40%	40%	40%
(%)	9.0%	44%	45%	45%	9.0%	40%	40%	41%	9.0%	37%	37%	37%
	9.5%	42%	42%	43%	9.5%	37%	37%	38%	9.5%	34%	34%	34%
	10.0%	39%	40%	40%	10.0%	34%	35%	35%	10.0%	31%	31%	31%

6.4kW	Install Price ($/W):	$ 2.95			$/W:	$ 3.10			$/W:	$ 3.25		
	REC ($/Mwh):	25	30	35		25	30	35		25	30	35
	8.0%	50%	51%	51%	8.0%	45%	46%	46%	8.0%	42%	42%	43%
Interest	8.5%	46%	47%	47%	8.5%	41%	41%	42%	8.5%	37%	38%	38%
(%)	9.0%	43%	43%	44%	9.0%	37%	37%	38%	9.0%	33%	33%	34%
	9.5%	39%	39%	40%	9.5%	32%	33%	33%	9.5%	28%	29%	29%
	10.0%	35%	35%	36%	10.0%	28%	29%	29%	10.0%	24%	24%	25%

8kW	Install Price ($/W):	$ 2.95			$/W:	$ 3.10			$/W:	$ 3.25		
	REC ($/Mwh):	25	30	35		25	30	35		25	30	35
	8.0%	50%	51%	52%	8.0%	44%	45%	45%	8.0%	40%	40%	41%
Interest	8.5%	45%	46%	46%	8.5%	38%	39%	40%	8.5%	34%	34%	35%
(%)	9.0%	40%	40%	41%	9.0%	32%	33%	34%	9.0%	27%	28%	29%
	9.5%	34%	35%	35%	9.5%	26%	27%	28%	9.5%	21%	22%	22%
	10.0%	29%	29%	30%	10.0%	20%	21%	22%	10.0%	15%	15%	16%

Example Calculation of Savings (SF-TPO Program)

Based upon a 12,824 kWh yearly energy usage profile with winter and summer peaks, $1,581 electric bill without system. $316 represents 20% savings for moderate bill; $180 for a low-usage electricity customer of 8,649 kWh. These models assume an average rate of return for the developer and savings for the consumer.

	Price per kWh ($) and (total saved in year one $)		
Subsidy	9% IRR	10% IRR	11%1RR
5000	$0.092 ($210)	$0.097 ($171)	$0.100 ($134)
5500	$0.079 ($325)	$0.083 ($287)	$0.087 ($252)