STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Petition of New York State Energy Research and Development Authority Requesting Additional NY-Sun Program Funding and Extension of Program Through 2025.	**Case: 19-E-0735**

Joint Petition for Approval of an Expanded Solar For All Program For Providing Community Solar to Low-Income Customers

New York State Energy Research and Development Authority
Niagara Mohawk Power Corporation d/b/a National Grid

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I. Introduction

The New York State Energy Research and Development Authority (NYSERDA) and Niagara Mohawk Power Corporation d/b/a National Grid (National Grid or the Company) hereby petition the New York State Public Service Commission (the Commission) for approval of an Expanded Solar For All program (E-SFA) to provide community solar and associated guaranteed bill savings to low-income customers. The Commission, when adopting Community Distributed Generation (CDG) in New York, intended to create "opportunities for participation in solar and other forms of clean distributed generation to utility customers that would not otherwise be able to access that generation directly."[1] However, to date, apart from NYSERDA's Solar For All program, low-income households have been mostly left out of community solar and its benefits.

In its Order Extending and Expanding Distributed Solar Incentives, the Commission encouraged NYSERDA to collaborate with one or more utilities to propose a program for utility enrollment of low-income customers.[2] The Commission similarly encouraged National Grid to work with NYSERDA and other stakeholders to consider innovative approaches to increase low-income customer participation in CDG projects.[3] NYSERDA seeks to collaborate with National Grid to create a community solar program focused on low-income customer participation where:

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[1] Case 15-E-0082, Proceeding on Motion of the Commission as to the Policies, Requirements, and Conditions for Implementing a Community Net Metering Program, Order Establishing a Community Distributed Generation Program and Making Other Findings (the CDG Order), issued July 17, 2015, p.3.
[2] Case 19-E-0735, Proceeding on Motion of New York State Energy Research and Development Authority Regarding Additional NY-Sun Program Funding and Extension of Program Through 2025, Order Extending and Expanding Distributed Solar Incentives (the 6 GW Order), issued May 14, 2020, p.27.
[3] Case 19-M-0463, In the Matter of Consolidated Billing for Distributed Energy Resources, Order Regarding Consolidated Billing for Community Distributed Generation (the Net Crediting Order), issued Dec.12, 2019, pp.26-27.

National Grid automatically enrolls Energy Affordability Program (EAP) customers into the E-SFA; NYSERDA and National Grid enroll CDG projects into the E-SFA; National Grid allocates the dollar value generated by the participating projects between payment to the project owners and bill credits to E-SFA customer share; and, National Grid then aggregates the bill credits generated by all the enrolled projects and distributes the credit value evenly among all participating customers.

The Climate Leadership and Community Protection Act (CLCPA) mandates that disadvantaged communities receive at least thirty-five percent of the benefits associated with New York's clean energy investments.[4] Over the years, and through NY-Sun and other programs, NYSERDA has rolled out several initiatives to serve low-income households. And now, in compliance with the CLCPA directive, NYSERDA has dedicated $200 million to serve low-income customers, affordable housing, and environmental justice and disadvantaged communities.[5]

In January 2018, National Grid launched the EAP to help income-eligible customers manage their home energy bills. National Grid works closely with the Office of Temporary and Disability Assistance (OTDA) to identify customers who have received a Home Energy Assistance Program (HEAP) grant. The low-income customers who receive a HEAP grant are automatically enrolled in the EAP and receive a monthly bill credit.

Leveraging NYSERDA and National Grid's commitments to serve low-income customers and approximately 600 MWdc of the existing community solar pipeline in the Company's service territory,[6] the proposed E-SFA, when adopted by the Commission and fully implemented, aims to provide approximately $10 per month in electric bill savings for all of the approximately 159,000 EAP customers. National Grid will continue to recover the costs of the bill credits and the payments to participating CDG providers through the Value Stack surcharge according to existing methods for determining in- and out-of-market components. The E-SFA will be structured such that the costs of the initiative and incremental benefits provided to participating customers will be funded by the value created from efficient implementation of the

[4] New York Environmental Conservation Law § 75-0117.
[5] The 6 GW Order, p.23.
[6] At this time, there are 317 community solar projects totaling over 1,300 MWac at a mature stage of development in National Grid territory. Even more capacity is at an earlier stage of development. This pipeline presents a remarkable opportunity to expand low-income customer participation in CDG. NYSERDA and National Grid propose leveraging approximately 600 MWdc of this pipeline in the E-SFA program.

program. The E-SFA design will reduce barriers and ensure more equitable access to solar energy, establish a transparent eligibility threshold, offer seamless enrollment, provide clear communication and customer education, capture project development cost savings, and most importantly, offer a stable and meaningful monthly bill credit to all EAP customers.

II. Background

Low-income customers are less likely to access clean and renewable energy opportunities for their homes as compared to other customers. Many factors, including rental or multi-family housing, frequent relocation, insufficient credit scores and lack of access to information, contribute to the limited participation of low-income customers in clean energy programs. New York State and the utilities have taken steps to address this equity gap. This section summarizes the existing regulatory and programmatic efforts to improve low-income customer access, submits evidence of low participation rates among low-income customers despite these efforts, and sets guiding principles for the E-SFA program design.

a. Statutory Foundation and Regulatory Programs:

New York State has enacted a statutory foundation and encourages regulatory mechanisms to achieve clean energy equity, affordability, and accessibility for all New Yorkers, including low-income and other disadvantaged communities:

- **CLCPA:** Passed by the legislature in 2019, the CLCPA codified several ambitious electric sector targets including 100% zero-emission electricity by 2040, 70% renewable energy by 2030, 9,000 MW of offshore wind by 2035, and deployment of 6,000 MW of distributed solar by 2025. The CLCPA also enshrined New York's commitment to clean energy equity by requiring that disadvantaged communities receive at least thirty-five percent of the benefits of spending on clean energy and energy efficiency programs.

- **NY-Sun:** Launched in 2012 and expanded in 2020, NYSERDA's NY-Sun program aims at driving the development of 6 GW of distributed solar by 2025 through incentives, consumer education, technical assistance to local governments, training, reduction of installation soft costs, and initiatives to improve access to solar electric energy for low-income customers. To respond to the CLCPA mandates, in May 2020 the Commission authorized a new Solar Energy Equity Framework dedicating no less than $200 million

for projects benefitting low-income customers, affordable housing, environmental justice communities and disadvantaged communities.

- **CDG:** In 2015, the Commission established the CDG program to enable customers to participate in local clean energy projects without having to install a generation facility on their property.[7] The CDG program allows residential and commercial customers that do not have appropriate physical space or financial means to support rooftop solar to nevertheless access clean energy.
- **Net Crediting:** Under conventional CDG implementation, customers received two bills: a monthly utility bill with a credit for their share of the energy produced by the CDG facility, and another bill from the owner of the CDG for the subscription costs. This two-bill experience created customer confusion and led many CDG projects to exclude customers that did not have a good credit history. In 2019, the Commission authorized Net Crediting to enable a single-bill solution by allowing CDG projects to go through the utility to directly apply monetary credits on the customer's utility bill and receive compensation from the utility for the customer's share of the CDG subscription costs.[8] Net Crediting simplifies the customer experience and eliminates the need for credit checks, expanding CDG access to customers with poor credit history.
- **EAP:** Authorized in 2016, EAP is designed to limit energy costs for low-income households to an average of no more than six percent of a household's income.[9] Participating low-income customers receive tiered discounts based on their estimated income and energy burden. Low-income customers already receive a HEAP grant, a federal grant for energy assistance, and are automatically enrolled in EAP.

b. Solar For All

The proposed E-SFA program builds upon the foundation of NYSERDA's Solar For All program, the largest program in New York to date expanding community solar access to low-income customers. In 2018, NYSERDA launched Solar For All, a no-cost community solar

[7] The CDG Order.
[8] The Net Crediting Order.
[9] Case 14-M-0565, Proceeding on Motion of the Commission to Examine Programs to Address Energy Affordability for Low Income Utility Customers, Order Adopting Low Income Program Modifications and Directing Utility Filings, issues May 20, 2016.

subscription program for low-income utility customers that set an initial goal of 10,000 participants by the end of 2020. NYSERDA contracted with nine competitively selected CDG projects to provide no-cost subscriptions to participating customers. To participate in Solar For All, customers were required to verify income and electric usage eligibility. Participating customers receive an allocation of CDG bill credits that reduces their monthly electricity costs between approximately $5 to $15 for up to 10 years. Solar For All's CDG project procurement yielded projected discounts (contracted price paid by NYSERDA compared to the projected value of CDG credits generated) in excess of program targets. This success demonstrates the potential to create and capture significant CDG project development savings through thoughtful program design and to, in turn, deliver the value of those savings to low-income program participants (*see* Guiding Principles below).

At the initiation of Solar For All, NYSERDA implemented a broad, multi-pronged outreach strategy to engage eligible customers and encourage them to sign up for the program. These efforts have included digital and print marketing; direct mail campaigns to eligible customers in coordination with the OTDA; outreach by community-based organizations under contract with NYSERDA; and referral partnerships with local governments, affordable housing providers, social services agencies, and utility energy assistance programs. However, after one year of program implementation, the rate of customer enrollment was significantly below program goals. In response to this challenge, in 2019, NYSERDA conducted an end-to-end process analysis and customer feedback review and determined that the following factors contributed to slow uptake of the program:

- Customers found the requirement to demonstrate income and electric usage cumbersome. Many customers expressed frustration that they were required to re-verify their eligibility for a low-income energy assistance program after recently having done so for HEAP, EmPower, or other means-tested programs.
- Customers were worried that the relatively modest savings offered by Solar For All would reduce or potentially negate the existing relief they receive from HEAP or other utility bill assistance.
- Credits from community solar vary from month to month due to the variability of the electricity generated by the assigned community solar project. Customers expressed a preference for consistent discounts, since many are on fixed incomes, and planning both

their spending and savings is more useful than variable discounts for their budget planning.

Following this assessment, NYSERDA revised Solar For All requirements, application processes, and outreach materials to increase the program's accessibility and ease of use for the customer. These efforts resulted in increased application numbers, with by far the most impactful change being the inclusion of CDG credits from Solar For All as a cost-savings measure under the NYSERDA EmPower program– effectively, the automatic enrollment of a large portion of new participants in the State's flagship low income energy efficiency program. However, in light of the Solar For All program goals, the number of participants in Solar For All relative to the total number of low-income customers remains low. As of January 14, 2021, 3,615 customers have enrolled in and are receiving CDG credits from Solar For All. While this number meets or exceeds the impact of virtually every other comparable, low-income community solar program in the United States,[10] the program model continues to fall short of meeting the needs of low-income New Yorkers and the mandates of the CLCPA.

These results highlight, and additional stakeholder and subject matter expert discussions emphasize, a core truth about means-tested programs designed to support low-income customers: every support program (HEAP, SNAP, TANF, etc.) has an application process that requires significant time and energy to complete, which in and of itself can be a significant barrier to participation. NYSERDA has therefore concluded that consolidation of the application processes, where only one application is required to automatically enroll in all low-income energy programs, is a critical step to deliver much-needed benefits in a way that is fair and accessible to customers.

c. Other Solar Equity Programs

In preparing the E-SFA program design, NYSERDA and National Grid reviewed the results and lessons learned from the following solar equity programs in New York.

- **National Grid's Fruit Belt Neighborhood Solar REV Demonstration Project:** In 2015, National Grid installed solar PV systems on 69 low-income single-family homes, three faith-based non-profit buildings and two community non-profit buildings located

[10] *See* Attachment A, U.S. Examples of Community Solar Programs That Serve Low- to Moderate-Income Communities.

within the Fruit Belt neighborhood in Buffalo.[11] All solar PV systems were connected "in front of the meter," meaning they injected power directly into the distribution grid. National Grid aggregates the energy generated from the PV systems, assigns value using a standard compensation mechanism and then distributes the value in bill credits among the 130 participants. While the program successfully demonstrates interest from LMI customers to participate in a clean energy program, it raised awareness of the detrimental impact of high customer acquisition costs on successful program performance.

- **Con Edison's Shared Solar Pilot:** In 2017, the Commission approved Consolidated Edison's Shared Solar Pilot allowing the utility to procure and install 3 MW of CDG solar generation on Consolidated Edison's property for the benefit of customers participating in the utility low-income affordability program. This pilot aims to provide a monthly credit of approximately $5 for up to 1,600 customers in Consolidated Edison's service territory.[12] Consolidated Edison is currently working to implement the program and address challenges related to engineering and interconnection requirements.[13]

In addition to these solar equity programs in New York, NYSERDA and National Grid considered relevant insights and best practices from solar equity programs from other states, as discussed in detail in Attachment A.

d. Disparity In Low-Income Customer Participation In CDG

Community solar continues to offer potential to provide clean energy access and associated cost savings to low-income households. However, despite the regulatory and programmatic efforts discussed above, this potential largely remains untapped. As of third quarter 2020, approximately 12,500 (or 0.84%) of National Grid's residential customers were enrolled in CDG projects. Of those customers, less than six percent (705) were EAP recipients. As of February 15, 2021, the NYSERDA Solar For All program had 1,581 low-income National

[11] Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision, National Grid Fruit Belt Neighborhood Solar, REV Demonstration Project, Buffalo, New York, Final Report, March 22, 2019.
[12] Case 16-E-0622, Petition of Consolidated Edison Company of New York, Inc. for Approval of a Pilot Program for Providing Shared Solar to Low-Income Customers, Order Approving Shared Solar Pilot program with Modifications, issued August 2, 2017, p.3.
[13] Case 16-E-0622, Petition of Consolidated Edison Company of New York, Inc. for Approval of a Pilot Program for Providing Shared Solar to Low-Income Customers, Quarterly Report of Program Expenditures and Activities through September 2020, November 30, 2020.

Grid customers enrolled in active CDG projects. It is therefore likely that the overwhelming majority of EAP customers currently benefiting from CDG are doing so via the current Solar For All program, rather than the private CDG market.

In late 2020, NYSERDA collected anonymized geographic information on a large, representative sample of the current pool of CDG subscribers in Upstate New York. This analysis found that approximately 8% of CDG subscribers within the sample resided in census block groups in disadvantaged communities as compared to approximately 17.3% of the general population in this region.[14] Disadvantaged communities were identified using the interim criteria defined by New York State and the Climate Justice Working Group established by the CLCPA. This geographic distribution did not vary significantly from the distribution of residential rooftop solar customers. As it appears, while CDG subscriptions are intrinsically more accessible to residential customers compared to rooftop solar installation, this accessibility has not translated into actual inclusion of an increased proportion of low-income customers, or improved equity in the distribution of solar benefits to disadvantaged communities.

e. Stakeholder Engagement and Feedback

NYSERDA and National Grid have consulted with a wide range of stakeholders to inform the E-SFA program design. On September 24, 2020, NYSERDA and National Grid hosted a stakeholder webinar that was attended by 324 individuals representing 214 different companies, state and local government agencies, local and national environmental organizations, environmental justice organizations, and other entities. Participants also included representatives of solar developers, community solar customer management and acquisition service providers. The webinar described the proposed program as well as parallel components of the Solar Energy Equity Framework and Inclusive Community Solar Adder. It was followed by a Q&A session during which 63 separate questions or comments were submitted by stakeholders. NYSERDA held informal discussions with individual stakeholders and small groups to address questions raised during the webinar. Acknowledging that stakeholders reserve all formal comments in response to this filing, the E-SFA concept appeared to have been well received by stakeholders.

[14] Disadvantaged Communities. https://www.nyserda.ny.gov/ny/disadvantaged-communities. For the purpose of this analysis, Upstate New York is comprised of all Regional Economic Development Council regions outside of New York City, Mid-Hudson and Long Island.

In particular, the unprecedented goal of providing all EAP participants with guaranteed bill savings through community solar was broadly supported.

National Grid and NYSERDA also utilized National Grid's Customer Council to collect insights on how customers would feel about participating in the program. The Customer Council is a panel of National Grid customers that the Company uses to receive feedback on existing and proposed offerings and services. National Grid and NYSERDA shared a brief description of E-SFA with Customer Council members that are New York residents, low-income, and receive their electricity from National Grid. The customers were then asked to provide feedback on the proposed offering and express any concerns or questions. EAP customers reacted positively to E-SFA and expressed interest in participating based on the savings and ability to use clean energy. They also found the program easy to understand but noted that more details about the program and its impact were important and necessary prior to enrollment. Details that are important to these customers include expected savings amount, potential contractual obligations, and impact on HEAP eligibility. The insights from the Customer Council were instrumental in finalizing the design of E-SFA, and future feedback will be sought on the marketing and education materials.

Two specific concerns were raised during the stakeholder process. First, some solar developers expressed apprehension about the mechanics of the program procurement process for CDG projects. NYSERDA and National Grid have taken this feedback into consideration by including a "Standard Offer" procurement option as discussed in the Program Design section below. Second, some providers of community solar customer acquisition and management services expressed concern that the proposed program will limit the addressable market for their services, and that low-income customers would derive greater monetary and/or experiential value from conventional CDG subscriptions. Based on the evidence of limited participation in CDG from low-income customers, NYSERDA and National Grid concluded that serving all EAP participants through the E-SFA would not significantly impact the market opportunities for community solar service providers. Likewise, based on low-income customer feedback, lessons drawn from Solar For All, and our review of programs nationally and across New York State, NYSERDA and National Grid concluded that the customer experience offered by the proposed program would be substantially more accessible and less burdensome for low-income customers than conventional CDG subscriptions. Finally, while a small subset of eligible customers could

find greater savings with a conventional CDG subscription, the program design section below describes a simple "opt out" process for customers who wish to do so.

f. Guiding Principles

Based on State goals, lessons learned, and market analysis, as discussed above, NYSERDA and National Grid propose an E-SFA program design to be built upon the following guiding principles:

(i) Equitable Access to Renewable Energy: The impacts of climate change and fossil fuel combustion are disproportionately borne by low-income communities, and the benefits of clean and renewable energy deployment should be equitably directed to the members of low-income communities.

(ii) Reducing Barriers to Renewable Energy: Lack of access to capital or insufficient credit scores can prevent low-income customers from benefiting from clean energy solutions. Administrative barriers and a lack of trust in energy products offered by the market also dissuade low-income customers from taking advantage of clean energy benefits. A clean energy solution for low-income customers should be simple, safe, and accessible without regard to credit score or available capital.

(iii) Transparent Eligibility Threshold: An effort to expand clean energy access to low-income customers should offer a transparent eligibility threshold. Establishing a low-income customer's eligibility status is often complex and burdensome. Anchoring the eligibility to a pre-established EAP enrollment and privacy practices surrounding that program will reduce the threshold and process complexities.

(iv) Clear Communication with Customers: Due to the proposed automatic enrollment process for the program, there must be clear communication regarding the purpose, benefits, and impacts of the program so that those enrolled are well informed regarding the program and their ability to participate, as well as options for leaving the program.

(v) Capturing Project Development Cost Savings: The program design and implementation should capture project development cost savings from customer acquisition, enrollment, billing and other process efficiencies, and enhance participating customer bill savings.

To the extent the E-SFA adjustments are needed following initial implementation, NYSERDA and National Grid intend that any such adjustments would be consistent with these principles to the extent practicable.

III. Program Design

a. Functional Overview

This section provides an overview of how E-SFA would function if implemented as proposed. In keeping with the Guiding Principles described above, E-SFA proposes a simple arrangement where:

(i) National Grid will automatically enroll all income-eligible customers participating in the EAP into the E-SFA, and will incorporate customer education about E-SFA into EAP marketing and outreach;

(ii) NYSERDA and National Grid will enroll eligible CDG projects via one of the two options – a "Standard Offer" process or a "Competitive Solicitation" process – as adopted by the Commission and administered by NYSERDA. CDG project owners will remain responsible for the ownership and operation of the project;

(iii) Participating CDG projects will receive a set compensation level from National Grid, defined as a percentage of the Value Stack;

(iv) Participating CDG projects' Value Stack compensation and NY-Sun Block incentive status will be unaffected by their enrollment in the program. Projects may be eligible for added NY-Sun incentives upon enrollment. A project's eligibility for Value Stack elements including the Market Transition Credit, the Community Credit, the DRV and LSRV would be dependent on the timing of the project and interconnection payments;

(v) After compensating CDG projects, National Grid will aggregate the remaining Value Stack credits and distribute bill credits evenly among all E-SFA customers as a fixed monthly credit on customer electric bills; and,

(vi) National Grid will collect the total value of the bill credits generated by participating projects via the existing Value Stack surcharge and according to existing methods to allocate in- and out-of-market costs.

Figure 1 below is a simple program process flowchart identifying National Grid and NYSERDA's roles and responsibilities.

Expanded Solar For All Program Design Flowchart

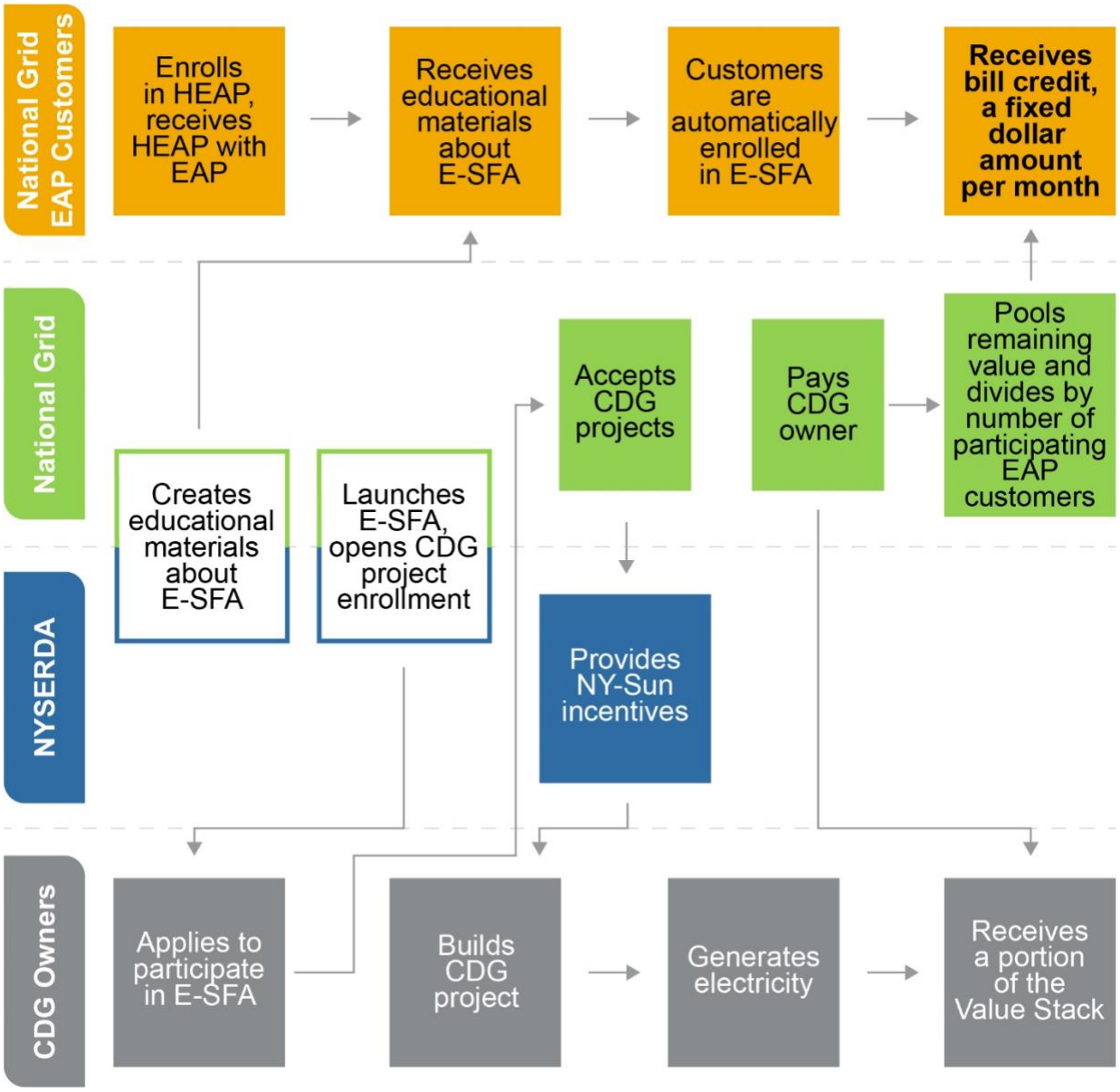

Figure 1

The proposed program design seeks to capture efficiencies from reducing the costs and efforts related to customer acquisition, enrollment and billing for projects, while ensuring wider enrollment of low-income customers. The E-SFA, when fully implemented, will provide an

estimated $10/month in bill credits for each EAP customer. As described in part (III)(b)(vii), below, National Grid's implementation costs will be funded from a Utility Administrative Fee and subsequently reconciled with actual administrative costs, with a portion of the remainder to be returned to all customers through a credit to the Value Stack surcharge. This alignment of interests among customers and National Grid, and the efficient program design that will reduce acquisition costs and enrollment administrative burdens for CDG providers, is expected to result in more benefits flowing to low-income customers even after accounting for implementation costs.

b. Program Design Details and Discussion

This section presents a detailed discussion regarding the E-SFA program design and program elements. Attachment C provides a detailed process description of the E-SFA program mechanics.

(i) Customer Eligibility and Enrollment

At present, National Grid customers that sign up for HEAP go through an Income Verification Process, and once they receive a HEAP grant they are automatically enrolled in the EAP. NYSERDA and National Grid propose to automatically enroll all EAP customers in the E-SFA and require no additional application paperwork or verification process.[15] National Grid will leverage many of the existing processes that have been developed to administer EAP. New customers who are identified as HEAP recipients will be enrolled in E-SFA at the time they are enrolled in EAP. Notification to the customers of their inclusion in E-SFA will be part of the same notification process used by the EAP program. All the automatically enrolled EAP customers will be provided a link through their online National Grid portal to opt-out of the E-SFA program at any time. Customers without access to online resources may call National Grid to unenroll. Customers that no longer meet HEAP eligibility criteria, and therefore would not be EAP eligible, would also automatically lose their eligibility for the E-SFA.

(ii) Customer Education

NYSERDA and National Grid propose to build upon NYSERDA's experience with the Solar For All and National Grid's experience with the Bill Discount programs to develop

[15] NYSERDA and National Grid will also explore opportunities for more streamlined enrollment of EAP customers for no-cost energy efficiency services as part of the Statewide LMI Portfolio.

customer friendly education material and disseminate it through channels that are familiar to the customers. Further, the E-SFA proposes to leverage the existing work of National Grid's customer team and market the program as an additive to the existing benefits customers receive from HEAP and EAP. HEAP and EAP are marketed seasonally so that sign-up aligns with the HEAP enrollment period that opens each winter. National Grid's customer team conducts the outreach in the late summer and early fall by utilizing mailings, email marketing, Customer Advocates, and outreach partners to ensure customers enroll in HEAP/EAP.

The E-SFA messaging will be incorporated into HEAP/EAP messaging. Separate information and education materials for E-SFA will also be developed for the first year to educate customers about the new offer. The strategic plan here is to consolidate messaging that the customers receive on Bill Discount programs. National Grid will also leverage the existing outreach partner and Customer Advocate network to inform about the program, answer questions, and collect feedback.

(iii) CDG Project Eligibility and Enrollment

CDG projects that 1) are interconnecting within the National Grid electric service territory, 2) have made full interconnection upgrade payments, and 3) accept the program terms and applicable National Grid tariff, will be eligible to participate in the E-SFA. The proposed tariff, when adopted by the Commission, will run for 25 years from project interconnection, with all terms subject to subsequent Commission direction. Redlined tariff leaves are included as Attachment D, and clean tariff leaves are provided in Attachment E.

NYSERDA and National Grid have explored two options for project enrollment: 1) a "Standard Offer" process, where projects that meet eligibility criteria may enroll into the program at a predetermined compensation level; or 2) a "Competitive Solicitation" process, where projects submit competitive bids to a periodic Request for Proposals (RFP). NYSERDA and National Grid present both options in this Petition for stakeholder comment and Commission consideration and determination.[16]

Option 1: Standard Offer

Under the Standard Offer option, eligible projects may enroll into E-SFA at a predetermined compensation level. The compensation level offered may vary based on objective

[16] The tariff leaves submitted in Attachments D and E are based on use of the Standard Offer option. Final tariff leaves will reflect the project enrollment option approved by the Commission.

project characteristics and the time at which the project enters the program. Given the number of interrelated project characteristics that will impact any given project's economics and potential contributed bill savings, NYSERDA would administer the Standard Offer, and would develop an Excel-based calculator tool wherein the applicant would enter their project-specific characteristics to determine their compensation, as a percent of the Value Stack, offered by National Grid for participation in the program. As discussed below, the Standard Offer may incorporate additional NY-Sun incentives for certain project categories.

The Standard Offer program design would include at least two "blocks" of available capacity. The total capacity initially offered would be determined based on the projected capacity needed to provide every EAP customer with the targeted savings of $10 per month. NYSERDA and National Grid currently estimate that this will be approximately 600 MWdc. Each block would be made available as a Standard Offer and, once the block is full, a new block would be released. Prior to releasing a new block, NYSERDA and National Grid would evaluate the project pipeline and response to the preceding block and may, if conditions warrant, adjust the compensation level of the Standard Offer and available capacity. Likewise, if a preestablished time limit is passed without a block being filled, NYSERDA and National Grid would reevaluate the Standard Offer and make adjustments to ensure that the Program enrolls sufficient project capacity. As an illustrative example, the Program may offer two blocks of 300 MWdc for no less than six months each. After initial program implementation, additional capacity blocks may be offered if needed to adjust for project attrition, increased EAP enrollment, or other factors.

This program design option is therefore comparable to other open enrollment solicitations, including the NY-Sun Incentive Program declining MW Block structure or the Value of Distributed Energy Resources Market Transition Credit/Community Credit tranche structure. The advantages of this structure are transparency and predictability for NYSERDA, National Grid, and project owners. However, as NYSERDA and National Grid do not have full visibility into the economics of specific projects and portfolios, this structure has a greater potential to overcompensate some projects.

Option 2: Competitive Solicitation

Under the Competitive Solicitation option, project owners would respond to an RFP issued by NYSERDA and would submit bids for compensation, in the form of a percent of the Value Stack. The total capacity initially targeted by the solicitation would be determined based

on the projected capacity needed to provide every EAP customer with the targeted savings of $10 per month. NYSERDA and National Grid currently estimate that this will be approximately 600 MWdc.

The competitive solicitation program design would include at least two solicitation rounds. Prior to issuing a new round of the solicitation, NYSERDA and National Grid would evaluate the project pipeline and response to the preceding round and may, if conditions warrant, adjust the solicitation to ensure that the Program enrolls sufficient project capacity. As an illustrative example, the Program may offer two solicitation rounds six months apart targeting 300 MWdc each. After initial program implementation, additional solicitation rounds may be offered if needed to adjust for project attrition, increased EAP enrollment, or other factors.

This program design option is therefore comparable to the NYSERDA solicitations for large-scale renewables under the Clean Energy Standard, or the initial Solar for All Facilities RFP issued in 2018. The advantages of this structure are the potential for more cost-effective bids and, as a result, lower program costs. However, this structure reduces the level of transparency and predictability for NYSERDA, National Grid, and project owners, particularly given the multi-year development process for CDG projects.

(iv) NYSERDA funding

Most, if not all, of the projects that are expected to participate in the Program will have secured NY-Sun incentives prior to applying to the Program. These incentives include both the NY-Sun MW Block "base" incentive as well as the Community Adder incentive for projects that will not receive the Market Transition Credit or Community Credit as part of the applicable Value of Distributed Energy Resources tariff. Across the approximately 600 MWdc of solar project capacity expected to participate in the E-SFA, NYSERDA estimates that approximately $145 million in NY-Sun incentives will have been secured prior to applying to the Program. Under the proposed program design, projects would still receive these incentives per NY-Sun program rules. Likewise, under the proposed program design, projects that have previously secured the Market Transition Credit or Community Credit would keep that component of the VDER compensation in order to deliver the benefits of those credits to low-income program participants.

NYSERDA's analysis of project and program economics further indicates that additional "adder" NY-Sun incentives for a subset of participating solar projects may be needed to achieve the program goals for savings across the full EAP customer pool. This analysis is highly sensitive to assumed LBMP, DRV, and capacity payments projected within the Value Stack compensation over the life of the Program. The added incentive funds, if needed, would be drawn from the $135 million budget dedicated to Solar Energy Equity Framework approved in the 6 GW Order. NYSERDA will amend the NY-Sun Operating Plan to include details of the adder incentive process for the Program. Under the Standard Offer option discussed above, adder incentives may be offered at varying levels depending on the project's underlying economics and regulatory status. Under the Competitive Solicitation option discussed above, adder incentives may be incorporated into the bid structure.

(v) Bill Credit Allocation

The E-SFA proposes a new approach to allocating value from CDG projects to customers as bill credits. Traditionally, a customer would be paired with a single CDG project. The CDG project would generate value on a monthly basis and the customer would receive a bill credit proportional to the value generated. This model results in variability in the bill credits the customer would see on a month-to-month basis. It also results in inconsistent bill credits between customers paired with different projects. Instead of pairing customers with a single project, the E-SFA proposes to aggregate the Value Stack credits from all participating CDG projects. On an annual basis, National Grid will calculate the projected value to be generated by participating CDG projects that will be available for distribution to E-SFA customers (see Attachment C for more details). The credits will then be distributed evenly among all E-SFA customers as a fixed monthly credit on customer electric bills. In keeping with the Guiding Principles, this method eliminates barriers, provides equitable access to community solar for all participating customers enrolled in E-SFA, and offers consistent and fixed monthly bill credits to participating customers.

(vi) Customer Experience and Customer-centered Bill Design

A common frustration that NYSERDA heard from Solar For All customers is that they found their utility bills confusing, difficult to understand, and have trouble identifying where the Solar For All credits are indicated. The issue of utility bill clarity can be addressed by user-

centered design incorporating education language directly into the bill. National Grid will pay special attention to how the E-SFA bill credit is shown on the customer bill, ensuring that the line item is clear and there is sufficient explanation of its origin and purpose. National Grid proposes to clearly label the E-SFA line item on the utility bill, and then include explanation regarding what the line item is and why customers are receiving the credit. To incorporate the feedback received from Solar For All customers and Customer Council Members, the following features will be clearly explained:

- E-SFA comes from community solar that is built and operated right in New York State.
- E-SFA is additional savings that National Grid is providing to their EAP customers.
- E-SFA is additive to HEAP and EAP, and will not impact any other utility bill assistance that the customers receive.
- E-SFA will be a fixed amount each month.
- Customers can stop receiving E-SFA by contacting National Grid.

A clear explanation of the line item, its origins, and its interaction with other assistance will help customers better understand and feel comfortable with its inclusion on the bill. An example rendering of the line item can be found in Attachment B.[17]

(vii) Utility Administrative Fee

National Grid proposes to collect a Utility Administrative Fee which will be used to offset the incremental costs incurred by National Grid in implementing the E-SFA program. Consistent with the approach for Net Crediting approved by the Commission, this fee initially would be set at one (1) percent[18] of the monthly value of a CDG project's Value Stack credits. National Grid will track its incremental administrative costs of implementing the E-SFA program and will annually report such costs to the Commission.

To the extent National Grid's actual annual incremental administrative costs exceed the amount recovered through the initial one (1) percent Utility Administrative Fee, National Grid would be allowed to adjust the Utility Administrative Fee for the following program year to recover the prior year's shortfall and incremental administrative costs projected for the program

[17] Attachment B rendering is shared simply as an illustration of National Grid's plan for clear customer communication and is not a final bill design or mock-up.
[18] The one (1) percent fee is based on the administrative fee established in the Net Crediting Order, *see supra* n. 3.

year. To the extent that the annual amount recovered through the Utility Administrative Fee exceeds National Grid's actual incremental administrative costs for the E-SFA program in that year, the excess amount recovered will be returned to all customers through a credit to the Value Stack surcharge; provided, however, that to the extent the Company's actual incremental administrative costs are less than one (1) percent of the aggregate Value Stack credits of CDG projects participating in the E-SFA for the given program year, the Company will be allowed to retain 50 percent of difference between the one (1) percent of the aggregate Value Stack credits and its actual incremental administrative costs. This "share the savings" mechanism incentivizes National Grid to operationalize E-SFA in an efficient manner.

(viii) Coordination with Other Programs Serving Low-Income Customers

- *EAP*

Eligible recipients who are enrolled in EAP will be automatically be enrolled in E-SFA. National Grid proposes to calculate the EAP bill savings without the inclusion of E-SFA credits. This will result in the EAP bill savings calculation being unaffected by E-SFA.

- *Energy Efficiency for LMI*

In July 2020, NYSERDA and the state's investor-owned utilities, including National Grid, jointly filed a Statewide Low- and Moderate-Income Portfolio Implementation Plan.[19] This statewide framework will invest nearly $1 billion through 2025 to advance energy efficiency in the LMI market segment and feature complementary programming between the utilities and NYSERDA with the objectives of providing long-term energy burden reductions by increasing the energy efficiency in LMI homes and affordable housing, streamlining program enrollment and reducing administrative burden, and increasing the impact of ratepayer funds. The proposed E-SFA will complement the LMI Portfolio Implementation Plan by delivering additional benefits to low-income customers in the National Grid electric service territory. NYSERDA has successfully demonstrated the current Solar For All community solar offering complements the existing EmPower low-income energy efficiency program. Similar to the current Solar For All structure, the proposed E-SFA design provides fixed bill credits from community solar, regardless of the customer's electric usage. This design element avoids any interference with

[19] Case 18-M-0084, In the Matter of a Comprehensive Energy Efficiency Initiative, Statewide Low- and Moderate-Income Portfolio Implementation Plan, filed July 24, 2020.

energy efficiency investments or behaviors by maintaining the full monetary value of each kWh reduction in customer electric usage, and provides for an effective complement to energy efficiency programs such as EmPower, which deliver the bulk of the affordability impact through thermal load reductions.

While the petition is proposing automatic enrollment of EAP Customers into E-SFA, NYSERDA and National Grid acknowledge that further reducing administrative burden associated with participating in low-income energy efficiency programs will simplify participation and help to further improve energy affordability for low-income customers. However, unlike extending a bill credit to an EAP Customer, energy efficiency programs present additional complexity related to automatic enrollment. The delivery of energy efficiency services requires additional information on the customer and the home before the customer can be enrolled, such as whether the customer is a home owner or renter and the type and condition of the home are critical to determining whether and how the customer can benefit from an energy efficiency program. As part of the development of the Statewide LMI Portfolio, NYSERDA and National Grid will explore the transferability of the principles surrounding the E-SFA enrollment mechanism to streamline and improve the low-income energy efficiency program enrollment experience, including any necessary modifications for energy efficiency programs.

- *HUD Utility Allowance*

Federal law states that the share of rent paid by a resident living in federally assisted public housing should equal 30 percent of the resident's adjusted monthly income.[20] Households residing in individually metered public housing buildings pay for their utility costs directly to the utility company and the public housing agency provides a utility allowance through a reduction in the monthly rent payment. One barrier to participating in an energy cost-savings program is that if there is a decrease in utility costs, the resident could receive a lower reduction in rent and thus not receive a net benefit from the program. In 2019, California's Solar On Multifamily Affordable Housing (SOMAH) program addressed this issue by requesting guidance from HUD

[20] U.S. Department of Housing and Urban Development, *Utility Allowances*, https://www.hud.gov/program_offices/public_indian_housing/programs/ph/phecc/allowances. Note: HUD defines "rent" as both the costs for shelter and utilities.

staff on the treatment of virtual net energy metering (VNEM) credits.[21] In July 2019, HUD released a memo stating that VNEM credits must be excluded when utility allowances are calculated since the credits are not based on the resident's actual electricity consumption.[22] NYSERDA and National Grid will examine any potential impact of the proposed program on the HUD Utility Allowance process and, if necessary, will seek clarification and/or a waiver from HUD in a manner similar to California SOMAH waiver.

- *Community Choice Aggregation (CCAs)*

Efforts are underway in New York State by CCA entities to explore using the "opt out" enrollment structure of a CCA to deliver community solar credits. Although neither NYSERDA nor National Grid are aware of any EAP participants currently included in CCAs, the potential introduction of a guaranteed savings model for CCA members presents the possibility that EAP participants may be eligible for automatic enrollment in E-SFA as well as a local CCA offering. Should these circumstances arise, National Grid and NYSERDA recommend that the Commission explicitly require the CCA provider to demonstrate that EAP/E-SFA participants will receive greater guaranteed savings through the CCA program. In such circumstances, National Grid, at the Commission's direction, would remove the customers from E-SFA upon enrollment in the CCA program.

- *Transition for CDG and Solar For All participants*

For the initial year, EAP Customers already subscribed to a CDG project will be notified at the start of the E-SFA program with the available E-SFA bill credits. As more CDG projects are enrolled in E-SFA, the available bill credits are anticipated to increase. Over time, the E-SFA bill credits may exceed those available through the subscribed CDG projects. Customers may contact National Grid and transition to the E-SFA program at any time.

For the Solar For All program, NYSERDA has contracted with three operational CDG projects in the National Grid territory to provide bill credits to the participants over a 10-year period. As existing participants either migrate to E-SFA or voluntarily leave the program, this

[21] Claproth, Michael, *HUD Changes Policy so Low-Income Renters can Access $100M/Year in Solar PV Benefits* (December 2, 2019), https://chpc.net/hud-changes-policy-so-low-income-tenants-can-access-100m-year-in-solar-pv-benefits/.
[22] U.S. Department of Housing and Urban Development, *Treatment of Solar Virtual Net Energy Metering Credits on Tenant Utility Bills* (July 8, 2019), https://calsomah.org/sites/default/files/docs/SOMAH_HUD_Solar_VNEM_Credits_memo_2019-07-08.pdf.

contracted capacity may become unallocated. National Grid and NYSERDA request flexibility to include this contracted capacity in the E-SFA program subject to terms and processes that may vary from the standard program process proposed in this Petition.

IV. Value Proposition

The E-SFA program aims to provide a number of benefits to low-income customers and CDG project developers, and harness administrative efficiencies and cost savings. In doing that, the program proposes to:

- Build upon lessons learned from the successes and challenges of community solar programs in New York and other jurisdictions, including from an end-to-end process analysis and customer feedback review of the Solar For All Program, as well as from evaluations of programs and projects in several other jurisdictions across the country.
- Preserve low income customers' existing relief from bill assistance programs. That is, savings from the bill assistance programs will not be affected by customer participation in the E-SFA program. Moreover, the E-SFA program proposes to clearly communicate to customers how their participation will interact with their existing bill assistance benefits.
- Provide consistent monthly bill credits and savings to customers, rather than variable credits, which is especially important for customers on fixed incomes.
- Avail bill savings and benefits of community solar to low-income customers.
- Eliminate barriers to entry by automatically enrolling EAP customers into the E-SFA and negating a need for participating customers to reestablish income eligibility.
- Incorporate industry, customer, and stakeholder feedback in its design.
- Capture operational and economic efficiencies related to customer acquisition, enrollment, and billing, and channel them towards creating greater program value.
- Support New York's clean energy and climate goals.
- Provide a model for NYSERDA to potentially collaborate with other utilities and explore using the automatic enrollment model as a guide for streamlining income-eligible energy efficiency programs enrollment.

The E-SFA program includes several expected metrics of success. These will depend on the final program design and actual performance. The values listed below are included as indicative estimates:

- Based on current EAP program size, the E-SFA program is expected to initially serve all 159,632 currently eligible households and plans to keep pace with a growing EAP program in the foreseeable future.
- Savings per participating household per year are estimated to be $100-$120. This is equivalent to 11-13% of the average participating customer's annual electric bill, or 16-20% when combined with the existing EAP bill discount.
- The E-SFA is projected to enroll approximately 600 MWdc of community solar, producing approximately 850-900GWh annually. This is estimated to represent about 80% of the annual kWh consumption of all EAP participants in National Grid territory.
- National Grid would provide consolidated customer acquisition, replacement, billing, and management services, which is expected to produce efficiencies estimated at $40-$60 million net present value over the projected life of the program.

V. Conclusion

The proposed E-SFA offers a predictable and meaningful monthly bill credit to all EAP customers. The program design implements a creative approach to ensure equitable access to solar energy by establishing a transparent eligibility threshold, offering seamless enrollment, providing clear communication and capturing project development cost savings. Accordingly, NYSERDA and National Grid request that the Commission approve: (i) the E-SFA program consistent with the proposed program design; (ii) the participating projects to retain applicable and previously secured Market Transition Credit or Community Credits; and (iii) NYSERDA's request for flexibility to transition Solar For All projects into the E-SFA, in a manner described in this petition.

[Signatures appear on the following page]

April 23, 2021

Respectfully submitted,

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STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

JOINT PETITION FOR APPROVAL OF AN EXPANDED SOLAR FOR ALL PROGRAM FOR PROVIDING COMMUNITY SOLAR TO LOW-INCOME CUSTOMERS	)	**Case 19-E-0735**

VERIFICATION

STATE OF NEW YORK)
) ss:
COUNTY OF NASSAU)

Philip A. DeCicco, being duly sworn, deposes and says:

I am Vice President and Deputy General Counsel of Niagara Mohawk Power Corporation, d/b/a National Grid, the corporation named in the within Petition.

I have read the foregoing Petition and know the contents thereof. They are true to my knowledge and belief.

Philip A. DeCicco
Niagara Mohawk Power Corporation d/b/a
National Grid

Sworn to before me this
22ND day of April 2021

Janet M. Audunson
NOTARIZED PURSUANT
TO NEW YORK
EXECUTIVE ORDER 202.7
DATED MARCH 19, 2020

JANET M AUDUNSON
NOTARY PUBLIC STATE OF NEW YORK
ONONDAGA COUNTY
LIC. #02AU6215112
COMM. EXP. 12-21-2021

Joint Petition for Approval of
Expanded Solar for All Program for Providing Community Solar
to Low Income Customers

LIST OF ATTACHMENTS

Attachment A

U.S. Examples of Community Solar Programs That Serve Low- to Moderate-Income Communities

The programs listed below provide a diverse snapshot of the types of community solar programs being implemented across the U.S. by states, utilities, local governments, and non-profit organizations to serve low- to moderate-income (LMI) customers. The best practices and lessons learned from these and other programs have been considered throughout the development of the Expanded Solar For All (E-SFA) program. For example, one of the most common challenges these programs face is customer acquisition. The initial and ongoing customer outreach and educational efforts required to enroll new customers can be substantial in terms of time and administrative costs. In addition, on the customer side, the application and eligibility process can be time consuming and act as a deterrent to program enrollment. The E-SFA program's innovative automatic enrollment process for Energy Affordability Program (EAP) customers removes a major administrative burden related to customer acquisition and will help to both reduce program costs and create easier program access for participants.

Aside from reducing administrative and customer program barriers, existing programs have shown that the following design elements can be critical to achieving successful outcomes: sufficient outreach to customers about new programs and benefits available; consistent, meaningful savings for subscribers; a strong value proposition to project owners; and the ability to leverage other programs to enhance energy cost savings. Drawing from these lessons, to ensure that customers understand the E-SFA program and how they can opt out, National Grid and its Customer Advocates will provide informational materials and use existing networks for customer outreach efforts. The program aims to provide subscribers with reliable bill savings of $10 per month, which will be shown as a credit on each bill. The program further aims to benefit project owners with both reduced administrative costs and lower risk compared with standard projects, since National Grid will be responsible for customer enrollment and management. The E-SFA program will also allow projects to participate in existing incentive programs, such as NYSERDA's NY-Sun Program, to ensure that they can provide the targeted monthly savings for subscribers.

Existing community solar programs also demonstrate the demand for energy cost savings programs within LMI communities and, in some cases, show that customer interest can exceed

available program capacity. Potential LMI customer demand is an important consideration that can help to determine adequate program scale. Further, solar energy equity programs should be an integral part of any strategy to meet overall clean energy policy goals since they are targeted to communities traditionally unable to benefit from clean energy programs but also often most impacted by the negative effects of fossil fuel use. In designing the E-SFA program, NYSERDA and National Grid examined the number of low-income National Grid customers who do not currently benefit from existing community solar programs and found that less than 10 percent of customers enrolled in the utility's EAP were subscribed to Community Distributed Generation projects. The new program is designed to reach this underserved low-income population consisting of nearly 160,000 customers in the National Grid territory, which would significantly expand solar access and make it the largest low-income solar program in the nation.

(i) Arizona Public Service Solar Communities Program

In 2017, the Arizona Corporation Commission approved Arizona Public Service Company's (APS) Solar Communities Program (initially called AZ Sun II), a $45 million program that funds utility-owned PV system installations on LMI housing, multifamily housing, and non-residential properties (non-profits serving LMI customers, Title I Schools, and rural government buildings) in the APS service territory. Residential participants living in single-family homes receive a $30 bill credit per month for a 20-year period, and tenants of participating multifamily buildings receive a $15/month bill credit.[23] As of September 2020, 700 PV systems had been installed through the program and total installed capacity is expected to exceed 3 MW once all construction has been completed.[24]

To increase participation and installations, APS executed an extensive customer outreach strategy, decreased the allowable system size from 4 kW to 2 kW, allowed roofs facing east in certain areas (in addition to the west- and southwest-facing roofs already eligible for the program), and implemented solar installer metrics to track and reduce interconnection

[23] Arizona Public Service Company, *Solar Communities Program* (see" Residential" and "Multifamily" tabs), https://www.aps.com/en/About/Sustainability-and-Innovation/Technology-and-Innovation/Solar-Communities#Residential.

[24] Arizona Public Service Company, *Quarterly Status Report on APS Solar Communities Program (formerly AZ Sun II)* (September 30, 2020), http://docket.images.azcc.gov/E000009298.pdf?i=1607984105360.

timelines.[25] The utility also leveraged its low-income bill assistance program to contact income-verified customers and streamline the application process.[26]

(ii) Colorado Energy Office Low-Income Community Solar Demonstration Project[27]

Colorado's Low-Income Community Solar Demonstration Project was initiated by the Colorado Energy Office (CEO) which awarded non-profit GRID Alternatives a $1.2 million grant to develop eight solar demonstration projects throughout Colorado with additional investment and programmatic support from non-regulated utility partners. Originally designed to benefit 300 low-income families, the Demonstration Project has helped reduce the energy burden for 380 low-income households. The eight projects ranged in size from 26 to 700 kW, each serving between 7 and 140 LMI households whose average subscription sizes ranged from 2 to 5 kW. Overall, the projects collectively resulted in an average solar benefit of 15 to 50 percent reduction in total utility bill cost, or $10 to $49 per month in savings. Depending on the project, subscription terms range from one to five years and participating utilities will cycle in new subscribers and, in some cases, re-enroll previous subscribers during the 20- to 25-year project life cycle. Notably, each project employed a "barn-raising" community development model in which subscribers were encouraged to provide 16 hours of sweat equity by working alongside GRID Alternatives, the utility, and community partners to build the community solar arrays. This unique model showed that community solar can also be leveraged to achieve other social goals, including training and workforce development.

In its final program report, CEO highlighted the importance of escalation rates and ensuring a balance between projected utility costs and bill savings targeted for subscribers. For example, if bill credits are set at a fixed dollar amount, subscriber savings as a percentage of utility bills will decrease as utility rates go up. A related programmatic best practice noted by CEO is the provision of predictable savings for subscribers. Though many Demonstration Project subscribers had benefitted from weatherization programs, CEO recommends a more direct

[25] Arizona Public Service Company, *Quarterly Status Report on APS Solar Communities Program (formerly AZ Sun II)* (September 30, 2019), https://docket.images.azcc.gov/E000003046.pdf?i=1607984105360.
[26] Arizona Public Service Company, Quarterly Status Report on APS Solar Communities (formerly AZ Sun 11) (December 28, 2018), https://docket.images.azcc.gov/0000194747.pdf?i=1607984105360.
[27] Details on the Colorado program are synopsized, *passim*, from the project final report. Colorado Energy Office, Insights from the Colorado Energy Office Low-Income Community Solar Demonstration Project, Sept. 2017, available at https://www.colorado.gov/pacific/sites/default/files/Insights%20from%20the%20CEO%20Low-Income%20Community%20Solar%20Demonstration%20Project.pdf.

connection to streamline enrollment efforts. CEO also notes that credit carryover between high-production summer months and winter is a key consideration. It recommends a similar carryover regime as is being currently discussed in the VDER proceeding, or alternatively lowering subscribers' utility rate for all power purchased pro rata, based on the expected solar production versus household consumption. The latter approach would provide greater certainty for the subscribers on a monthly basis.

(iii) District of Columbia Solar for All Program[28]

Established in 2016, the District of Columbia's Solar for All program has a goal of benefitting 100,000 low-income households by reducing their electricity bills by 50 percent by 2032. The program is managed by the District's Department of Energy and Environment (DOEE) and provides funding for solar projects installed on single-family homes as well as multifamily and commercial buildings to benefit low-income homeowners, renters, and multifamily residents. To encourage innovation, DOEE awarded grant funding to nine different entities that demonstrated a range of strategies to address barriers and reach low-income communities. For example, Solar United Neighbors of D.C. employed a single-family co-op model which enabled 73 qualifying households to own and benefit from solar installed on their homes. Alternatively, the District's Community Preservation and Development Corporation (CPDC) installed 1 MW of solar PV on 12 affordable housing properties managed by CPDC, benefitting 2,200 housing units by providing new resident services, building improvements, and other resident amenities. An added benefit of the Solar for All program is its solar job training program, Solar Works DC, which aims to train more than 200 D.C. residents and install solar on up to 300 low-income single-family homes.[29]

As of September 2019, the Solar for All program had installed nearly 7 MW of solar and benefitted approximately 8,600 low-income households. The program anticipated an additional 7 MW of installed solar capacity in 2020, which would allow the program to benefit another 2,750 households. In its latest program review filing, DOEE administrators identified site access and customer acquisition as major challenges to the Solar for All program. DOEE notes that they are engaging in further customer education efforts and have begun to establish partnerships with

[28] Fiscal Year 2019 Solar for All Annual Report (Feb. 12, 2020), available at https://lpdd.org/wp-content/uploads/2020/06/Solar-for-All-Annual-Report.pdf.
[29] D.C. Department of Energy and the Environment, *Solar Works DC*, available at https://doee.dc.gov/service/solar-works-dc.

other District Government agencies to leverage their existing processes and systems to address administrative burdens and sign up customers more efficiently.

(iv) Florida Power & Light SolarTogether Program

In March 2020, Florida Power & Light's (FPL) SolarTogether Program was adopted by the Florida Public Service Commission. Under the program's first phase, FPL will build and own 1,490 MW of commercial-scale solar PV systems that will serve all customer classes. As part of a settlement agreement, the program reserves 37.5 MW for low-income customers who will receive a net bill credit of 70 cents per kW over a 30-year period (for a 5 kW subscription share, the customer would receive a monthly net credit of $3.50, which would amount to $1,260 over the life of the program).[30] Depending on the average subscription share, the program could serve as many as 10,000 low-income customers in FPL territory. FPL will also provide free home energy audits to low-income subscribers as part of the program.[31] FPL expects enrollment in the low-income portion of the program to begin in early 2021.[32]

(v) Inclusive Shared Solar Initiative

The National Association of State Energy Officials (NASEO)—in collaboration with the National Energy Assistance Directors' Association (NEADA) and NYSERDA—has launched an Inclusive Shared Solar Initiative (ISSI) which aims to work with stakeholders in state government, low-income communities, solar developers, and financial institutions to replicate, refine, and expand the Solar for All model in new markets.[33] ISSI has issued an RFP to solicit state governments, community groups, and financial institutions that want to host six new, low-income community solar projects from 2020-2022. ISSI will offer funding (up to $90,000 per state to support staff time and expenses[34]) and collaborate with the winners of this RFP process, which are expected to be announced January 15th, 2021. The basis for ISSI lies in part in the New York Solar for All program, which is designed to provide free access to community solar facilities for low-income households. New York's program accomplishes this by providing

[30] Florida Public Service Commission, *Final Order Approving Stipulation and Settlement Agreement* (March 20, 2020), http://www.floridapsc.com/library/filings/2020/01555-2020/01555-2020.pdf.
[31] Ibid.
[32] Florida Power & Light Company, *FPL SolarTogether Frequently Asked Questions: How can I participate in the low-income portion of the FPL SolarTogether program?*, https://www.fpl.com/energy-my-way/solar/solartogether-res/faq.html.
[33] NASEO, Inclusive Shared Solar Project, see webpage at https://www.naseo.org/issues/solar/issi.
[34] See ISSI RFP at https://www.naseo.org/Data/Sites/1/11-24-20_final-issi-state-implementation-partner-rfp-4.pdf.

community solar developers with guaranteed payments on behalf of a set number of low-income participants, essentially making the low-income population the "anchor tenant" for each project. In addition to these pilot projects, the ISSI team will work to facilitate community solar development through the creation of a suite of resources that can be used by other states.

(vi) New Jersey Community Solar Energy Pilot Program

In 2019, the New Jersey Board of Public Utilities (NJBPU) adopted the New Jersey Community Solar Energy Pilot Program. The 3-year pilot program will develop at least 75 MW of community solar per year. Under the program rules, 40 percent of the pilot program's capacity is reserved for projects in which at least 51 percent of the capacity serves LMI communities. In the first year of the pilot, however, all 45 approved renewable energy projects promised to serve the requisite number of LMI customers, surpassing the target set for the program.[35] It achieved this by evaluating the 252 applications using weighted criteria that gave higher preference to projects that would serve LMI customers. In addition, the program's evaluation criteria awarded more points to projects that commit to providing at least 5 to 10 percent in guaranteed savings and offer additional community benefits, such as local job training.[36]

For its second program year, the NJBPU will consider an "opt-out" subscriber enrollment model on a limited scale specifically for LMI municipal projects that will offer consolidated billing.[37] One hurdle to that type of enrollment model in New Jersey is that LMI customers with significant arrearages pose a risk to project revenue certainty since the rules allow customers to be removed from consolidated billing after 120 days of arrearages. Commenters pushed for exceptions to these rules to make project revenue and customer qualification more secure.

(vii) Xcel Energy Rehabilitation and Efficiency: Neighborhood Energy Works Pilot Program

In 2018, the Minnesota Public Utilities Commission adopted Xcel Energy's Rehabilitation and Efficiency: Neighborhood Energy Works (RENEWs), a three-year pilot program to promote energy efficiency and community solar participation for LIHEAP-eligible households who reside in the Railroad Island neighborhood of Saint Paul, MN. The program

[35] NJBPU, Order of 12/20/19, Docket No. QO18060646, available at https://www.nj.gov/bpu/pdf/boardorders/2019/20191220/12-20-19-8D.pdf.
[36] NJBPU, Order 8D of 10/02/2020, Docket No. QO18060646, available at https://publicaccess.bpu.state.nj.us/CaseSummary.aspx?case_id=2106549.
[37] NJBPU, Order 8C of 10/02/2020, Docket No. QO18060646, available at https://publicaccess.bpu.state.nj.us/DocumentHandler.ashx?document_id=1226637.

proposal envisioned the development of a 500-kW community solar garden within the neighborhood to which low-income residents would subscribe. Based on initial estimates, Xcel anticipated the solar garden would serve approximately 100 customers and provide a monthly bill credit between $3 and $4.[38]

The program has faced numerous challenges since its approval, including the withdrawal of Xcel's solar garden construction partner, availability of land for hosting a 500-kW project within the neighborhood, and customer acquisition difficulties related to the energy efficiency component of the program.[39] Xcel is no longer pursuing the construction of a community solar garden and is instead exploring potential solar training opportunities and demonstrations, such as educational solar arrays or solar benches.[40]

National Statutory and Regulatory Landscape

Across the country, a number of states have adopted, or are in the process of developing, laws, regulations, and programs to support LMI community access to clean and affordable energy. For example, Maine's Green New Deal Act includes provisions for solar and heat pump subsidies for low-income customers who are eligible for LIHEAP;[41] Colorado is in the process of developing a Climate Equity Framework that would align the state's climate change response with "principles of racial equity and economic justice";[42] Massachusetts recently adopted legislation that includes $12 million in workforce funding for environmental justice and minority- and women-owned clean energy businesses;[43] the Virginia Clean Economy Act requires that if a utility makes deficiency payments under the state's Renewable Portfolio Standard program, a portion of those payments must go toward job training and renewable energy programs in "historically economically disadvantaged communities";[44] and California has

[38] Xcel Energy, *Program Status Update* (January 29, 2020), https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showeDocketsSearch&showEdocket=true&userType=public (use search box to find Docket 17-527 and January 29, 2020 program status update filing)
[39] Xcel Energy, *Compliance – 2019 Annual Report* (April 1, 2020), https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showeDocketsSearch&showEdocket=true&userType=public (use search box to find Docket 17-527 and April 1, 2020 compliance filing).
[40] Ibid.
[41] An Act to Establish a Green New Deal for Maine, L.D. 1281, §B-4(3).
[42] Colorado Energy Office, *Colorado Greenhouse Gas Pollution Reduction Roadmap*, Public Review Draft (September 30, 2020), *available at* https://energyoffice.colorado.gov/climate-energy/ghg-pollution-reduction-roadmap.
[43] An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy, S.2995, §14.
[44] Virginia Clean Economy Act, H.B.1526/S.B.851, §56-585.4(D)(5).

a number of solar programs, including the Disadvantaged Communities—Single-family Solar Homes program[45] and the Solar On Multifamily Affordable Housing program,[46] which aim to provide financial assistance for rooftop solar installations to low-income customers and multifamily affordable housing.

At the federal level, the Biden Administration has issued a Plan to Secure Environmental Justice and Equitable Economic Opportunity, which would aim to target 40% of the overall benefits of investments across a variety of environmental programs to disadvantaged communities, and includes a number of additional approaches, such as requiring new pollution monitoring within fenceline and frontline communities, and establishing an Environmental and Climate Justice Division within the Department of Justice and an Office of Climate Change and Health Equity at the Department of Health and Human Services, among other actions.[47]
The E-SFA program aligns strongly with the broader state and national efforts underway across the country.

[45] California Public Utilities Commission, Solar in Disadvantaged Communities, https://www.cpuc.ca.gov/SolarInDACs/#DC_SASH.
[46] Solar on Multifamily Affordable Housing, https://calsomah.org.
[47] The Biden Plan to Secure Environmental Justice and Equitable Economic Opportunity, https://joebiden.com/environmental-justice-plan/.

Attachment B

This rendering is shared simply as an illustration of National Grid's plan for clear customer communication and is not intended as a final bill design or mock-up.

SERVICE FOR
Jane Doe
123 Sample Rd

BILLING PERIOD
Apr 20, 2020 to May 18, 2020

PAGE 2 of 4

ACCOUNT NUMBER
00000-00000

PLEASE PAY BY

AMOUNT DUE
$ 7.56

DETAIL OF CURRENT CHARGES

Delivery Services

Electricity Delivery

Service Period	No. of days	Current Reading	-	Previous Reading	=	Total Usage
Apr 20 - May 18	28	74674 *Actual*		74323 *Actual*		351 kWh

METER NUMBER 26507021 NEXT SCHEDULED READ DATE ON OR ABOUT Jun 19

RATE Electric SC1 Non Heat - EAP

Basic Service (not including usage)			17.00
Energy Affordability Credit - Tier 3			-38.00
Community Solar Credit			-10.00
Delivery	0.05614871	x 351 kWh	20.83
SBC	0.005491	x 351 kWh	1.93
Legacy Transition Chrg	0.003305	x 351 kWh	1.16
RDM	0.00056321	x 351 kWh	0.20
Transmission Rev Adj	-0.00329	x 351 kWh	-1.15
Tariff Surcharge	3.09278 %		-0.18
	Total Electricity Delivery		**-$ 8.21**

Supply Services

Electricity Supply

SUPPLIER National Grid

Electricity Supply	0.03232	x 351 kWh	11.34
Merchant Function	0.00171521	x 351 kWh	0.60
ESRM	0.010606	x 351 kWh	3.72
Tariff Surcharge	1.0101 %		0.11
	Total Electricity Supply		**$ 15.77**

Attachment C

E-SFA Program Mechanics

Definitions

The following terms will be used to refer the basic billing components of the E-SFA:

Value Stack – The value of energy generated by a project as dictated by the VDER tariff rate.

Customer Share – The amount of the Value Stack that will be allocated to participating customers.

Credit Pool – The aggregation of all Customer Shares. This pool of value will be distributed evenly to all participating customers.

Program Year – The annual cycle for the program, in line with EAP, running from April 1 to March 31. Program Year 1 is anticipated to be April 1, 2022 to March 31, 2023.

Recalculation Period – Annually, the E-SFA will estimate the amount that will be generated for the Credit Pool for the upcoming year. This will take place prior to the start of each Program Year and will determine the Community Solar Credit that customers will receive.

Community Solar Credit – The amount that will be deducted from customer's monthly electric bill as a result of the E-SFA, and indicated on the customer's bill as illustrated in Attachment B. The Community Solar Credit will initially be targeted at $10 per month.

Floating Credits – Credits generated in a Program Year that are excess of the credits distributed to customers during the Program Year.

Customer Enrollment:

- All EAP customers (with limited exception, as described below) will be automatically enrolled in the program through an opt-out model. Existing EAP customers will be notified at the start of the program of their enrollment into the E-SFA, and provided a description of the program and the benefits it provides. Customer who later enroll in EAP will also, subsequently, be enrolled in E-SFA. Customers who are no longer enrolled in EAP will be automatically unenrolled from E-SFA.

- All E-SFA customers will be provided a link through their online National Grid portal to opt-out of the E-SFA program at any time. Customers also may contact National Grid by phone or mail to unenroll.
- Customers will not be enrolled in E-SFA and another CDG project simultaneously. Eligible Customers who are already enrolled in CDG projects will not be automatically enrolled in E-SFA. Instead, such customers will be notified during each Recalculation Period and given the option to switch to E-SFA, subject to the terms of their existing CDG subscription.
- E-SFA customers that choose to subscribe to a CDG project outside of E-SFA after being enrolled in E-SFA must opt out of E-SFA via the process described above before they can receive bill credits from the CDG project. National Grid will establish a process to allow customers who choose to subscribe to an alternative CDG project to begin receiving credits from that project on the monthly bill immediately following the final monthly bill on which they receive Community Solar Credits through E-SFA.

Project Enrollment and Compensation:

CDG Projects will be enrolled in the program through a NYSERDA-administered process. Enrolled projects will participate pursuant to the terms of the applicable E-SFA program tariff provisions approved by the Commission, with all terms subject to any subsequent Commission action.

Utility Compensation

- National Grid will collect a Utility Administrative Fee which will be used to offset the costs incurred by National Grid in implementing the E-SFA program. If National Grid's actual incremental administrative costs are less than the initial one (1) percent Utility Administrative Fee for a given year, the Company will be allowed to retain 50 percent of the difference between the one (1) percent Utility Administrative Fee and its actual incremental administrative costs for that year.

Recalculation Period:

- During each Recalculation Period, National Grid will estimate the upcoming Program Year's Credit Pool using the following calculation:

$$Credit\ Pool_{[Program\ Year]} = kW * 8760 * 0.14 * \$/kWh * Buffer + Floating\ Credits_{[Program\ Year - 1]}$$

where kW is the capacity of projects enrolled in the program, $/kWh is the average rate paid to solar generators through the Value Stack tariff projected for the upcoming Program Year, and Buffer is a percentage, anticipated to be initially set at 90%, intended to prevent the program from over-estimating the Credit Pool for the Program Year.

- The estimated Credit Pool will be distributed evenly among participating customers and provided in equal monthly bill credits to be applied to each customer's monthly electric bill for the following Program Year according to the following calculation:

$$Community\ Solar\ Credit = Credit\ Pool / (\#\ Customers * 12)$$

- During the Recalculation period, National Grid will seek to maintain a target Community Solar Credit, initially set at $10, by utilizing the Floating Credits from the preceding Program Year and adjusting the Buffer. However, it is anticipated that the Community Solar Credit will be less than the target level for the first one to three Program Years as CDG projects are enrolled and begin operation.
- At the conclusion of the Recalculation Period and prior to the start of the Program Year, a notification will be sent to all relevant customers informing them of the Community Solar Credit amount for the upcoming Program Year.
- If during a Recalculation Period it is found that the Credit Pool was over-estimated for the previous Program Year, that value would be deducted from the current Program Year's estimated Credit Pool and the Buffer value adjusted to compensate. If the Credit Pool is consistently over-estimated, National Grid may reduce the Community Solar Credit for subsequent Program Years.

Program Year Crediting:

- Customers will receive Bill Credits applied to their monthly electric bill for a Program Year, as determined during the Recalculation Period. The customer will see the Community Solar Credit as a single line item on their bill as illustrated in Attachment B.
- The Community Solar Credit will be applied to the customer's electric bill only.
- The Community Solar Credit will be applied only after all other (HEAP, EAP) bill credits are applied.

- If the Community Solar Credit cause the customer's bill to go below zero, or the bill is at or below zero prior to the application of the Community Solar Credit, the excess amount will be held on the customer's account and applied to future bills.
- If a customer account is closed during the Program Year, the remaining Community Solar Credit for that year will be applied to the following year's Recalculation Period.
- If a customer opts-out during a Program Year, a final Community Solar Credit will be applied to the customer's bill for the current month, and the remaining Community Solar Credit for that year will be applied to the following year's Recalculation Period.

Attachment D

GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.5 Expanded Solar For All ("E-SFA") Program

The E-SFA Program is a jointly run program by the Company and NYSERDA. The E-SFA Program will provide a monthly credit to participating customers in the Company's Energy Affordability Program, as specified in Special Provision M of SC1 or Special Provision I of SC1C of the Company's Tariff, from the aggregated Value Stack compensation, as specified in Rule 40.2, calculated from participating CDG projects' net injections as further provided in this Rule 29.5.

29.5.1 Participation Requirements

29.5.1.1 E-SFA CDG Projects

CDG projects participating in the E-SFA Program ("E-SFA CDG Projects") must meet the following requirements to participate:

i) An initial date of interconnection to the Company's electric system that is after Commission approval of the E-SFA Program;
ii) Compliant with the interconnection requirements as specified in Rule 29.1.3 of the Tariff;
iii) Paid in full on any Company invoices related to interconnection costs;
iv) Eligible for, and have the required metering installed for, Value Stack compensation as specified in Rule 40 of the Tariff;
v) Submitted all required information in response to a Standard Offer issued jointly by the Company and NYSERDA, as further described in Rule 29.5.2;
vi) Enrolled in the E-SFA Program by accepting the Compensation Level offered by the Company and NYSERDA resulting from the evaluation of submittals to the Standard Offer as further described in Rule 29.5.2; and
vii) May not have satellites enrolled for participation in their CDG project, as otherwise provided for in Rule 29, nor be an active participate in Rule 29.4, CDG Net Crediting program.

29.5.1.2 E-SFA Program Customers

29.5.1.2.1 Enrollment

The Company will automatically enroll any customer participating in the Company's Energy Affordability Program ("EAP") in the E-SFA Program. E-SFA Program customers may opt-out of the E-SFA Program at any time using the Company's on-line portal or by contacting the Company's Contact Center. E-SFA Program customers will be removed from the E-SFA Program at such time that the customer is no longer a participant in the Company's EAP.

GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.5.1.2.2 Exclusions

Customers who are enrolled in Rule 39.20 of the Tariff, Community Choice Aggregation Program, or who are otherwise enrolled directly with a CDG project or participate in a Remote Net Metered or Remote Crediting project, may not participate in the E-SFA Program.

29.5.2 Standard Offer & Compensation Level

NYSERDA and the Company will offer at least two blocks of available capacity to consider eligible CDG projects for enrollment in the E-SFA Program. Each block will specify the aggregate maximum generation capacity of the CDG projects to be enrolled in that block, as determined by the Company and NYSERDA. The first block's capacity will be enrolled completely before the second block is enrolled.

A Standard Offer will establish a Compensation Level for all CDG projects in a block, as determined by the Company and NYSERDA, based on project-specific characteristics and the Company's targeted credit to E-SFA Program customers. The Compensation Level is defined as the percentage of the CDG project's Value Stack compensation, as determined in accordance with Rule 40, that will be offered to the CDG project for participation in the E-SFA Program. Each block may have a different Compensation Level.

If any block has unfulfilled capacity within a certain time period, adjustments to the Compensation Level for that block of capacity may be offered to encourage further participation. The Company may offer additional blocks beyond the initial two blocks offered, at the discretion of the Company and NYSERDA.

Following receipt of written notification of proposed Compensation Level from the Company or NYSERDA, the CDG project will indicate its acceptance of the Compensation Level and participation in the E-SFA Program by submitting final enrollment forms to the Company.

The E-SFA CDG Project's Compensation Level will be fixed for a period of up to 25 years from the initial date of interconnection of the CDG project to the Company's electric system. The Compensation Level will also expire at such time the E-SFA CDG Project terminates participation in the E-SFA Program or has reached the end of the project's 25-year compensation period. The E-SFA CDG Project may unenroll from the E-SFA Program with a minimum of twelve (12) month notice prior to an April 1 program termination effective date.

GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.5.3 E-SFA Customer Credits

29.5.3.1 On an annual basis, the Company will determine the monthly fixed dollar amount that will be credited to participating E-SFA Program Customer's retail electric charges for the upcoming program year ("E-SFA Customer Credit"). The Company will forecast the dollar amount to be used to establish the E-SFA Customer Credit for the upcoming program year ("Credit Pool") as the share of the forecasted Value Stack compensation of the aggregated participating E-SFA CDG Projects for the upcoming program year that will be allocated to the E-SFA Program Customers ("Forecasted Customer Share"), plus any previous year's reconciliation balance as specified in 29.5.3.2. The monthly E-SFA Customer Credit will be determined as:

E-SFA Customer Credit = Credit Pool / (number of E-SFA Customers enrolled at end of previous program year * 12 billing months)

The E-SFA Customer Credit will be applied to the electric portion of customer's bills, after the application of any other applicable customer bill credits are applied. If the E-SFA Customer Credit causes the customer's monthly bill to be less than zero, the amount less than zero caused by the E-SFA Customer Credit will be banked to the customer's account and applied to future bills. If a customer opts-out during a program year the customer will receive a final credit during the current month of the opt-out and will not receive further credits.

29.5.3.2 Following the first year of the program, the E-SFA Credit for subsequent years will include a reconciliation balance of the previous year's compensation, credits and payments. The reconciliation balance will be determined as i) the actual Value Stack compensation associated with the E-SFA CDG Projects during the previous program year as specified in Rule 40, minus ii) the actual E-SFA Customer Credits provided during the previous program year, as specified in 29.5.3.1, minus iii) the actual E-SFA CDG Project Payments provided during the previous program year, as specified in 29.5.4, minus iv) the actual Utility Administrative Fee determined for the previous program year as specified in 29.5.5. The annual reconciliations will include carrying charges based on the Company's pre-tax WACC and will be added to the Credit Pool used to determine the E-SFA Credit in the following program year as specified in 29.5.3.1.

GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.5.4 E-SFA CDG Project Payment

The Company will pay the E-SFA CDG Project the Value Stack compensation calculated by the Company for the project for the previous month, in accordance with Rule 40, multiplied by their assigned Compensation Level percentage. Payments will be made monthly and separate from the retail bill.

29.5.5 E-SFA Utility Administrative Fee

The Company will collect an E-SFA Utility Administrative Fee to offset incremental costs incurred in implementing and administering the E-SFA Program. The fee will be forecasted for the upcoming program year and will be based initially as one percent of the forecasted annual value of the participating E-SFA CDG Project's total Value Stack credits. On an annual basis, the Company will compare its actual annual incremental implementation and administrative costs of the E-SFA Program for the previous year to the amount collected in that year in the E-SFA Utility Administrative Fee. To the extent that the annual costs exceed the amount recovered, the Company will adjust the E-SFA Utility Administrative Fee for the following program year to recover the difference. To the extent that the annual amount recovered in the E-SFA Utility Administrative Fee exceeds the annual costs, the excess amount will be returned to customers through the annual reconciliation of the Value Stack Surcharge, provided that if the Company's actual incremental costs are less than one percent of the aggregated Value Stack credits of the E-SFA CDG Projects in the program year, the Company will return fifty percent of the excess amount through the Value Stack Surcharge.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

40.2.2 Requirements:

All projects compensated under the VDER Value Stack must be equipped with interval meters, in accordance with Rule No. 25 – Meter, capable of recording net hourly consumption and injection. The customer will be responsible for the cost of such interval meters. Alternatively, customers can arrange for their Facility to be separately metered from their consumption with the additional metering cost to be borne by the customer in accordance with Rule No. 25 – Meter.

40.2.2.1 For new RNM and CDG projects, interval metering must be installed by the time of interconnection.

40.2.2.2 For large on-site projects, where an insufficient meter may be present, interval metering should be installed as soon as practicable.

40.2.2.3 Any mass market customer that opts into the VDER Value Stack tariff must have an interval meter installed before VDER Value Stack compensation can be received.

40.2.3 VDER Value Stack Crediting:

In each billing period, the Company shall pay a credit to the project for net hourly injections from the Facility by summing the credits available from the individual VDER Value Stack components as calculated in Rule 40.2.3.1 for projects that are not paired with energy storage and in Rule 40.2.3.2 for Hybrid Facilities.

~~40.2.3.1 Projects Not Paired with Energy Storage:~~

~~Value Stack Energy Component:~~

~~The Value Stack Energy Component is based on the NYISO day-ahead hourly zonal LBMP, inclusive of losses, applied to the project's hourly net injections in the billing period; losses will vary by voltage delivery level as specified in Rule 39.18.1.1.~~

~~For CDG projects participating in the CDG Net Crediting Program, the applicable Value Stack Energy Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.~~

~~For CDG projects not participating in the CDG Net Crediting Program, as specified in Rule 29.4, the Value Stack Energy Component calculated will be determined for each satellite by multiplying the sum of the hourly components calculated above by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The Energy Component associated with any percentage remaining when the sum of the satellite percentages is less than 100% ("Unallocated Satellite Percentage") will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5~~

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

40.2.3.1 Projects Not Paired with Energy Storage:

i. Value Stack Energy Component:

The Value Stack Energy Component is based on the NYISO day-ahead hourly zonal LBMP, inclusive of losses, applied to the project's hourly net injections in the billing period; losses will vary by voltage delivery level as specified in Rule 39.18.1.1.

For CDG projects participating in the CDG Net Crediting Program, the applicable Value Stack Energy Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable Value Stack Energy Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the Value Stack Energy Component calculated will be determined for each satellite by multiplying the sum of the hourly components calculated above by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The Energy Component associated with any percentage remaining when the sum of the satellite percentages is less than 100% ("Unallocated Satellite Percentage") will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

c. Alternative 3 – The Value Stack Capacity Component compensation will be the product of: i) the project's net kW injection during the hour of the New York Control Area ("NYCA") peak in the previous year, and ii) the effective Alternative 3 Value Stack Capacity rate. The Alternative 3 Value Stack Capacity rate will be determined as the forecasted LBMCP ($/kW-mo.) rate times the sum of one plus the Unforced Capacity Requirement of the NYISO.

A Customer-Generator with an intermittent technology is eligible to elect Alternative 3 and must make such election by May 1 to be eligible to receive the rate beginning June 1 of that year. A Customer-Generator with intermittent technology electing Alternative 3 after May 1 will be compensated under Alternative 1 until April 30 of the following calendar year.

A request for a change in Value Stack Capacity Component compensation submitted by a Customer-Generator with intermittent generation is subject to the following limitations:

i. A project compensated under Alternative 1 may switch to compensation under Alternative 2 or to Alternative 3;
ii. A project compensated under Alternative 2 may switch to Alternative 3;
iii. A project compensated under Alternative 2 cannot switch to Alternative 1; and
iv. A project compensated under Alternative 3 cannot switch to Alternative 1 or Alternative 2.

For CDG projects participating in the CDG Net Crediting Program, the applicable Value Stack Capacity Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable Value Stack Capacity Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the Value Stack Capacity Component will be determined for each satellite by multiplying the applicable capacity components calculated in 40.2.3.1 ii. a, b, or c above by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The Value Stack Capacity Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

iii. Value Stack Environmental Component

The Environmental Component will be calculated by multiplying: i) the sum of the project's total net injections for the billing period (kWh), by ii) the Environmental Component rate established at the time of the project's Eligibility Date. The Environmental Component rate will be the higher of:

a. the Tier 1 Renewable Energy Certificate ("REC") weighted average procurement price from the most recent solicitation as published by NYSERDA; or
b. the Social Cost of Carbon ("SCC"), net of the expected Regional Greenhouse Gas Initiative ("RGGI") allowance values, as calculated by NYS Department of Public Service Staff.

The Environmental Component rate will be shown in a statement filed with the PSC and will be fixed for the entire term of the project's 25-year compensation under the VDER Value Stack where such term begins with the project's interconnection date. Customer-Generators have a one-time, irrevocable election at the time of interconnection to opt out of the Environmental Component to preserve the opportunity to participate in voluntary market environmental and sustainability certification programs by retaining the project's RECs. Customer-Generators who do not exercise this opt-out election will transfer all RECs generated by the project to the Company and the Company will be the Responsible Party within the New York Generation Attribute Tracking System ("NYGATS") for all Tier 1 eligible Value Stack projects receiving compensation under the Environmental Component and will receive all associated RECs. This also applies to Tranche 0 Customer-Generators who opt-in to the VDER Value Stack but do not opt-out of the Environmental Component. Customer-Generators who elect to retain their project's RECs will not receive compensation under the Environmental Component and must designate a Responsible Party within the NYGATS.

~~For CDG projects participating in the CDG Net Crediting Program, the applicable Environmental Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.~~

~~For CDG projects not participating in the CDG Net Crediting Program, as specified in Rule 29.4, the Environmental Component will be determined for each satellite by multiplying the applicable Environmental Component calculated above by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The Environmental Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.~~

~~Projects eligible under Rule 40.2.1.1.2 are not eligible to receive the Environmental Component compensation.~~

~~The Environmental Component is available to Customer-Generators with projects that meet the definition of renewable energy systems in PSL §66-p, unless the resource was eligible before August 13, 2019. Customer-Generators with an Eligibility Date prior to August 13, 2019 are eligible for the Environmental Component if the project is eligible to participate in the CES to receive Tier 1 RECs, according to the CES rules.~~

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

For CDG projects participating in the CDG Net Crediting Program, the applicable Environmental Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable Environmental Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the Environmental Component will be determined for each satellite by multiplying the applicable Environmental Component calculated above by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The Environmental Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.

Projects eligible under Rule 40.2.1.1.2 are not eligible to receive the Environmental Component compensation.

The Environmental Component is available to Customer-Generators with projects that meet the definition of renewable energy systems in PSL §66-p, unless the resource was eligible before August 13, 2019. Customer-Generators with an Eligibility Date prior to August 13, 2019 are eligible for the Environmental Component if the project is eligible to participate in the CES to receive Tier 1 RECs, according to the CES rules.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

iv. Value Stack Demand Reduction Value ("DRV") Component:

Projects Eligible for Value Stack on or before July 26, 2018:

The Demand Reduction Value ("DRV") Component will be calculated by multiplying: i) the average of the project's net kW injections for each of the Company's ten (10) highest peak hours during the preceding calendar year, by ii) the project's applicable DRV Component rate ($/kW-mo.) in effect during the billing period. If an interval meter was not in service for the project at the time of the Company's ten (10) highest peak hours during the preceding calendar year, then the Company will estimate the project's net injections for those hours.

The DRV Component rate will be fixed for the project for three (3) years from the interconnection date, using the DRV Component rate established at the time of the project's Eligibility Date. The project's DRV rate will be adjusted by the Company after three (3) years from the interconnection date to the DRV in effect at that time.

The DRV Component is not applicable to customers who receive the Value Stack MTC Component, which include CDG satellites that are mass market customers and mass market customers who opt into the Value Stack per Rule 40.2.1.8.

Projects may elect to participate in the Company's Commercial System Relief Program ("CSRP"); however, Customer-Generators making such election must forgo DRV compensation. This is a one-time, irrevocable decision that may be made at any point during a project's Value Stack compensation term, in accordance with Rule 62.1. Customer-Generators that choose this election shall not receive DRV compensation for the remainder of their project term.

Projects may elect to participate in the Company's Term-DLM Program or Auto-DLM Program; however, Customer-Generators making such election must forgo DRV compensation for the duration of their participation in either the Term-DLM Program or Auto-DLM Program under Rule 65.1.

For CDG projects participating in the CDG Net Crediting Program, the DRV Component calculated above will only apply to non-mass market satellites and will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable DRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

~~For CDG projects not participating in the CDG Net Crediting Program, as specified in Rule 29.4 the DRV Component will only apply to non-mass market satellites and will be determined for each non-mass market satellite by multiplying the applicable DRV Component rate calculated above by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The DRV Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.~~

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the DRV Component will only apply to non-mass market satellites and will be determined for each non-mass market satellite by multiplying the applicable DRV Component rate calculated above by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The DRV Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.

Projects Eligible for Value Stack after July 26, 2018:

The DRV Component will be calculated by multiplying: i) the project's net injections (kWh) each bill period during the hours of 2:00 pm to 7:00 pm weekdays, non-holidays, between June 24 and September 15 inclusive, by ii) the project's hourly DRV Component rate ($/kWh). The project's hourly DRV Component rate will be determined by multiplying the Company's $/kW-year DRV Component rate in effect at the time of the project's Eligibility Date by ten (10) years and then dividing the result by the total number of eligible hours in the ten-year eligibility period for the project. This hourly DRV component rate will be fixed for the first ten (10) years of the project's operation. At the end of the ten-year period, the hourly DRV Component rate ($/kWh) will be the DRV rate and hours in effect during the billing period.

Projects may elect to participation in the Company's CSRP; however, Customer-Generators making such election must forgo DRV compensation. This is a one-time, irrevocable decision that may be made at any point during a project's Value Stack compensation term, in accordance with Rule 62.1. Customer-Generators that chose this election, shall not receive DRV compensation for the remainder of the project term.

Projects may elect to participate in the Company's Term-DLM Program or Auto-DLM Program; however, Customer-Generators making such election must forgo DRV compensation for the duration of their participation in the Term-DLM Program or Auto-DLM Program under Rule 65.1.

~~For CDG projects participating in the CDG Net Crediting Program, the applicable DRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to all CDG Satellites, as specified in Rule 29.4, except for CDG Satellites of CDG projects that opt into the Company's CSRP, Term-DLM Program, or Auto-DLM Program.~~

~~For CDG projects not participating in the CDG Net Crediting Program, as specified in Rule 29.4, the DRV Component will apply to all CDG Satellites, with the exception of CDG Satellites of projects that opt into the Company's CSRP, Term-DLM Program, or Auto-DLM Program. The DRV Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5~~.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

For CDG projects participating in the CDG Net Crediting Program, the applicable DRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to all CDG Satellites, as specified in Rule 29.4, except for CDG Satellites of CDG projects that opt into the Company's CSRP, Term-DLM Program, or Auto-DLM Program.

For CDG projects participating in the E-SFA Program, the applicable DRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5, except for CDG Satellites of CDG projects that opt into the Company's CSRP, Term-DLM Program, or Auto-DLM Program.

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the DRV Component will apply to all CDG Satellites, with the exception of CDG Satellites of projects that opt into the Company's CSRP, Term-DLM Program, or Auto-DLM Program. The DRV Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

v. Value Stack Locational System Relief Value ("LSRV") Component:

The LSRV Component will only be available to projects located in LSRV areas at the time of their Eligibility Date. Eligible LSRV areas that have been identified by the Company will be available on the Company's website and displayed on a statement filed with the PSC. If a project previously included in an LSRV area's MW capacity limit is canceled or abandoned, that project's proposed capacity shall be returned to the LSRV area's MW capacity limit and the revised remaining capacity will be displayed on a statement filed with the PSC.

Existing Customer-Generators located in an LSRV area that opt into the Value Stack will not receive the LSRV Component.

Projects may elect to participate in the Company's CSRP; however, Customer-Generators making such election must forgo LSRV compensation. This is a one-time, irrevocable decision that may be made at any point during a project's Value Stack compensation term, in accordance with Rule 62.1. Customer-Generators that chose this election, shall not receive LSRV compensation for the remainder of the project term.

Projects may elect to participate in the Company's Term-DLM Program or Auto-DLM Program; however, Customer-Generators making such election must forgo LSRV compensation for the duration of their participation in the Term-DLM Program or Auto-DLM Program under Rule 65.1.

Projects Eligible for Value Stack on or before July 26, 2018:

The LSRV Component will be calculated by multiplying: i) the average of the project's net kW injections for each of the Company's ten (10) highest peak hours during the preceding calendar year, by ii) the project's LSRV Component rate ($/kW-mo.) in effect during the billing period. If an interval meter was not in service for the project at the time of the Company's ten (10) highest peak hours during the preceding calendar year, the Company will estimate the project's net injections for those hours.

The LSRV Component rate will be fixed for the first ten (10) years from the project's interconnection date and the project's applicable LSRV Component rate will be the LSRV rate ($/kW-mo.) as filed by the Company in a statement with the PSC, in effect at the time of the project's Eligibility Date.

~~**Projects Eligible for Value Stack on or before July 26, 2018:**~~

~~The LSRV Component will be calculated by multiplying: i) the average of the project's net kW injections for each of the Company's ten (10) highest peak hours during the preceding calendar year, by ii) the project's LSRV Component rate ($/kW-mo.) in effect during the billing period. If an interval meter was not in service for the project at the time of the Company's ten (10) highest peak hours during the preceding calendar year, the Company will estimate the project's net injections for those hours.~~

~~The LSRV Component rate will be fixed for the first ten (10) years from the project's interconnection date and the project's applicable LSRV Component rate will be the LSRV rate ($/kW-mo.) as filed by the Company in a statement with the PSC, in effect at the time of the project's Eligibility Date.~~

~~For CDG projects participating in the CDG Net Crediting Program, the LSRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.~~

~~For eligible CDG projects not participating in the CDG Net Crediting Model, as specified in Rule 29.4, the LSRV Component will be determined for each satellite by multiplying the project's applicable LSRV Component rate ($/kW-mo.) by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The LSRV Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.~~

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

For CDG projects participating in the CDG Net Crediting Program, the LSRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable LSRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For eligible CDG projects not participating in either the CDG Net Crediting Model, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the LSRV Component will be determined for each satellite by multiplying the project's applicable LSRV Component rate ($/kW-mo.) by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The LSRV Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.

Projects Eligible for Value Stack after July 26, 2018:

Projects eligible for the LSRV Component will be compensated for responding to Company-called events ("LSRV Call Events"). The project's LSRV Component will be the sum of all LSRV Call Event calculations, as specified below, during the billing period. In the event that an LSRV Call Event spans two billing periods, the project will only be compensated once for the LSRV Call Event.

The compensation for each LSRV Call Event will be determined by: i) the project's lowest hourly net kW injection during the LSRV Call Event; multiplied by ii) the project's applicable LSRV Call Component rate as set out below.

The project's applicable LSRV Call Component rate ($/kW) will be the project's applicable LSRV Component rate ($/kW-mo.), as specified below, multiplied by 12 (months) and divided by 10 (annual minimum calls per year).

The project's applicable LSRV Component rate ($/kW-mo.) will be determined as the LSRV rate ($/kW-mo.), as filed by the Company in a statement with the PSC in effect at the time of the project's Eligibility Date and will be fixed for the first ten (10) years from the project's interconnection date.

~~For CDG projects participating in the CDG Net Crediting Program, the LSRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.~~

~~For eligible CDG projects not participating in the CDG Net Crediting Program as specified in Rule 29.4, the LSRV Component will be determined for each satellite by multiplying the project's applicable LSRV Component rate ($/kW-mo.) by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The LSRV Component associated with any Unallocated Satellite Percentage~~

~~will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.~~

~~LSRV Call Events:~~

~~The Company will call LSRV Call Events at least 21 hours in advance of the start of the LSRV Call Event.~~
~~Each LSRV Call Event will be between one (1) hour and four (4) hours in duration.~~
~~LSRV Call Events will generally be within the hours of 2:00 pm to 7:00 pm on non-holiday weekdays between June 24 and September 15 inclusive. The Company reserves the right to call LSRV Call Events outside of these hours if system needs warrant.~~
~~The Company reserves the right to combine LSRV areas into up to four (4) LSRV groups with different four (4)-hour call windows, each of which may be called independently based on sub-system load conditions.~~

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

For CDG projects participating in the CDG Net Crediting Program, the LSRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable LSRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For eligible CDG projects not participating in either the CDG Net Crediting Program as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the LSRV Component will be determined for each satellite by multiplying the project's applicable LSRV Component rate ($/kW-mo.) by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The LSRV Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.

LSRV Call Events:

i. The Company will call LSRV Call Events at least 21 hours in advance of the start of the LSRV Call Event.
ii. Each LSRV Call Event will be between one (1) hour and four (4) hours in duration.
iii. LSRV Call Events will generally be within the hours of 2:00 pm to 7:00 pm on non-holiday weekdays between June 24 and September 15 inclusive. The Company reserves the right to call LSRV Call Events outside of those hours if system needs warrant.
iv. The Company reserves the right to combine LSRV areas into up to four (4) LSRV groups with different four (4)-hour call windows, each of which may be called independently based on sub-system load conditions.
v. The Company will call a minimum of ten (10) LSRV Call Events per year for each LSRV area or group but may issue more depending on system needs. Compensation level for all calls will remain at the same level regardless of frequency.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

vi. Value Stack Market Transition Credit ("MTC") Component:

The MTC Component will only apply to CDG projects with an Eligibility Date on or before July 26, 2018 which also meet the further requirements specified herein.

The MTC Component will apply only to a CDG project's mass market satellites and those mass market customers who opt into the VDER Value Stack compensation per Rule 40.2.1.8. Projects eligible under Rules 40.2.1.1.1 and 40.2.1.1.2 are not eligible to receive the MTC Component compensation. The MTC Component will be calculated by multiplying: i) the sum of the project's total net injections for the billing period (kWh), and ii) the MTC Component rate applicable to the project's assigned Tranche and applicable service class.

For CDG projects participating in the CDG Net Crediting Program, the MTC Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable MTC Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the MTC Component will be calculated for each individual mass market satellite customer by multiplying: i) the sum of the project's total net injections for the billing period (kWh), ii) the MTC Component rate applicable to the project's assigned Tranche and satellite's service class, and iii) the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The CDG project sponsor (CDG Host as described in Rule 29.4) will not be allowed to bank any MTC components related to Unallocated Satellite Percentages. CDG projects receiving MTC compensation cannot opt-into receiving the Community Credit component, as described below.

The MTC Component will be fixed for the project's 25-year compensation term and will be shown in a statement filed with the PSC.

Any high-capacity-factor resource (*i.e.,* fuel cell) CDG project receiving Value Stack compensation with an Eligibility Date on or after August 13, 2019 shall receive an adjusted MTC Component rate determined as the effective MTC Component rate multiplied by an adjustment factor of 0.16. Any high-capacity-factor resource (*i.e.,* fuel cell) CDG project receiving Value Stack compensation with an Eligibility Date before August 13, 2019 shall receive the unadjusted MTC Component.

PSC NO ~~.~~: 220 ELECTRICITY
NIAGARA MOHAWK POWER CORPORATION
INITIAL EFFECTIVE DATE:
STAMPS:

LEAF: 220.7.0.1
REVISION:
SUPERSEDING REVISION:

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

vii. Value Stack Community Credit Component:

The Community Credit Component will apply to non-mass market satellites (as defined in Rule 40.1) in CDG projects with an Eligibility Date on or before July 26, 2018 and to all satellites in CDG projects with an Eligibility Date after July 26, 2018 which also meet the further requirements specified herein. Projects eligible under Rules 40.2.1.4, 40.2.1.1.1, and 40.2.1.1.2 are not eligible to receive the Community Credit Component compensation.

The Community Credit Component will be calculated by multiplying: i) the sum of the CDG project's total net injections for the billing period (kWh), and ii) the project's Community Credit Component rate applicable to the project's assigned Community Credit Tranche as filed by the Company in a statement with the PSC. The Community Credit Compensation for non-mass market satellites in CDG projects with an Eligibility Date on or before July 26, 2018 shall begin starting with the first billing cycle for that project in which the entire billing period is after July 31, 2020.

For CDG projects participating in the CDG Net Crediting Program. the Community Credit Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable Community Credit Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the Community Credit Component will apply to all CDG satellite accounts.

The project's Community Credit rate will be fixed for the first twenty-five (25) years following the project's interconnection date.

The CDG project sponsor (or CDG Host, as described in Rule 29.4) will not be allowed to bank any Community Credit Components related to Unallocated Satellite Percentages.

Any high-capacity-factor resource (*i.e.,* fuel cell) CDG project receiving Value Stack compensation with an Eligibility Date on or after August 13, 2019 shall receive an adjusted Community Credit rate determined as the effective Community Credit rate multiplied by an adjustment factor of 0.16. Any high-capacity-factor resource (*i.e.,* fuel cell) CDG project receiving Value Stack compensation with an Eligibility Date before August 13, 2019 shall receive the unadjusted Community Credit.

PSC NO~~.~~: 220 ELECTRICITY
NIAGARA MOHAWK POWER CORPORATION
INITIAL EFFECTIVE DATE:
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REVISION:
SUPERSEDING REVISION:

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)

40.3 Value of Distributed Energy Resources (VDER) Value Stack Cost Recovery
The VDER Value Stack Cost Recovery provides for recovery of costs incurred by the Company from customers, as approved by the Commission, for compensation provided to eligible projects under the VDER Value Stack Rule 40.2, ~~and~~ the Value Stack Compensation for CDG projects participating in the CDG Net Crediting Program in Rule 29.4, and Value Stack Compensation for CDG projects participating in the E-SFA Program in Rule 29.5.

40.3.1 The VDER Value Stack Cost Recovery is applicable to all customers taking service under P.S.C 220 and 214 Electricity, regardless of supplier. The VDER Value Stack Cost Recovery will be applicable to all delivery customers' load, including NYPA load delivered by the Company and economic development-qualifying load in Rule 34, with the exception of the Environmental Market Value Costs which will apply to all supply customers as specified in 40.3.2.3.

40.3.2 The Recovery of the VDER Value Stack Costs will be determined on a VDER Value Stack component basis for applicable service classes using allocation methods as further described below:

40.3.2.1 Capacity Market Value Cost Recovery

40.3.2.1.1 The Capacity Market Value costs will be determined for the recovery month as the product of i) the sum of all VDER Value Stack project's net injections at the hour of the NYISO system peak during the previous calendar year and ii) the average of the NYISO monthly spot auction capacity prices for the previous calendar year.

40.3.2.1.2 The Capacity Market Value costs will be recovered from all delivery customers, allocated by service class based on the most recent transmission demand allocator (*i.e.*, single coincident peak) from the Company's most current embedded cost of service study (ECOS).

40.3.2.1.3 The Capacity Market Value costs will be recovered on a per kWh basis for non-demand customers and a per kW basis for demand customers.

~~40.3.2.2 Capacity Out of Market Value Cost Recovery~~

~~40.3.2.2.1 The Capacity Out of Market Value costs will be determined monthly as the difference between i) the sum of all VDER Value Stack Capacity Components paid to projects and satellites, where applicable, during the recovery month and ii) the Market Value determined in 40.3.2.1 for the recovery month.~~

~~40.3.2.2.2 The Capacity Out of Market Value costs will be recovered from all delivery customers, with respective costs allocated to the service classes of the projects and satellites, where applicable, who receive the VDER Value~~

~~Stack Capacity Component credits, in proportion to the credits that projects and satellites, where applicable, of each service class receive.~~

~~40.3.2.2.3 The Capacity Out of Market Value costs will be recovered on a per kWh basis for non-demand customers and a per kW basis for demand customers.~~

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)

40.3.2.2 Capacity Out of Market Value Cost Recovery

40.3.2.2.1 The Capacity Out of Market Value costs will be determined monthly as the difference between i) the sum of all VDER Value Stack Capacity Components paid to projects and satellites, where applicable, during the recovery month and ii) the Market Value determined in 40.3.2.1 for the recovery month.

40.3.2.2.2 The Capacity Out of Market Value costs will be recovered from all delivery customers, with respective costs allocated to the service classes of the projects and satellites, where applicable, who receive the VDER Value Stack Capacity Component credits, in proportion to the credits that projects and satellites, where applicable, of each service class receive.

40.3.2.2.3 The Capacity Out of Market Value costs will be recovered on a per kWh basis for non-demand customers and a per kW basis for demand customers.

Attachment E

GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.5 Expanded Solar For All ("E-SFA") Program

The E-SFA Program is a jointly run program by the Company and NYSERDA. The E-SFA Program will provide a monthly credit to participating customers in the Company's Energy Affordability Program, as specified in Special Provision M of SC1 or Special Provision I of SC1C of the Company's Tariff, from the aggregated Value Stack compensation, as specified in Rule 40.2, calculated from participating CDG projects' net injections as further provided in this Rule 29.5.

29.5.1 Participation Requirements

29.5.1.1 E-SFA CDG Projects

CDG projects participating in the E-SFA Program ("E-SFA CDG Projects") must meet the following requirements to participate:

i) An initial date of interconnection to the Company's electric system that is after Commission approval of the E-SFA Program;
ii) Compliant with the interconnection requirements as specified in Rule 29.1.3 of the Tariff;
iii) Paid in full on any Company invoices related to interconnection costs;
iv) Eligible for, and have the required metering installed for, Value Stack compensation as specified in Rule 40 of the Tariff;
v) Submitted all required information in response to a Standard Offer issued jointly by the Company and NYSERDA, as further described in Rule 29.5.2;
vi) Enrolled in the E-SFA Program by accepting the Compensation Level offered by the Company and NYSERDA resulting from the evaluation of submittals to the Standard Offer as further described in Rule 29.5.2; and
vii) May not have satellites enrolled for participation in their CDG project, as otherwise provided for in Rule 29, nor be an active participate in Rule 29.4, CDG Net Crediting program.

29.5.1.2 E-SFA Program Customers

29.5.1.2.1 Enrollment

The Company will automatically enroll any customer participating in the Company's Energy Affordability Program ("EAP") in the E-SFA Program. E-SFA Program customers may opt-out of the E-SFA Program at any time using the Company's on-line portal or by contacting the Company's Contact Center. E-SFA Program customers will be removed from the E-SFA Program at such time that the customer is no longer a participant in the Company's EAP.

GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.5.1.2.2 Exclusions

Customers who are enrolled in Rule 39.20 of the Tariff, Community Choice Aggregation Program, or who are otherwise enrolled directly with a CDG project or participate in a Remote Net Metered or Remote Crediting project, may not participate in the E-SFA Program.

29.5.2 Standard Offer & Compensation Level

NYSERDA and the Company will offer at least two blocks of available capacity to consider eligible CDG projects for enrollment in the E-SFA Program. Each block will specify the aggregate maximum generation capacity of the CDG projects to be enrolled in that block, as determined by the Company and NYSERDA. The first block's capacity will be enrolled completely before the second block is enrolled.

A Standard Offer will establish a Compensation Level for all CDG projects in a block, as determined by the Company and NYSERDA, based on project-specific characteristics and the Company's targeted credit to E-SFA Program customers. The Compensation Level is defined as the percentage of the CDG project's Value Stack compensation, as determined in accordance with Rule 40, that will be offered to the CDG project for participation in the E-SFA Program. Each block may have a different Compensation Level.

If any block has unfulfilled capacity within a certain time period, adjustments to the Compensation Level for that block of capacity may be offered to encourage further participation. The Company may offer additional blocks beyond the initial two blocks offered, at the discretion of the Company and NYSERDA.

Following receipt of written notification of proposed Compensation Level from the Company or NYSERDA, the CDG project will indicate its acceptance of the Compensation Level and participation in the E-SFA Program by submitting final enrollment forms to the Company.

The E-SFA CDG Project's Compensation Level will be fixed for a period of up to 25 years from the initial date of interconnection of the CDG project to the Company's electric system. The Compensation Level will also expire at such time the E-SFA CDG Project terminates participation in the E-SFA Program or has reached the end of the project's 25-year compensation period. The E-SFA CDG Project may unenroll from the E-SFA Program with a minimum of twelve (12) month notice prior to an April 1 program termination effective date.

GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.5.3 E-SFA Customer Credits

29.5.3.1 On an annual basis, the Company will determine the monthly fixed dollar amount that will be credited to participating E-SFA Program Customer's retail electric charges for the upcoming program year ("E-SFA Customer Credit"). The Company will forecast the dollar amount to be used to establish the E-SFA Customer Credit for the upcoming program year ("Credit Pool") as the share of the forecasted Value Stack compensation of the aggregated participating E-SFA CDG Projects for the upcoming program year that will be allocated to the E-SFA Program Customers ("Forecasted Customer Share"), plus any previous year's reconciliation balance as specified in 29.5.3.2. The monthly E-SFA Customer Credit will be determined as:

E-SFA Customer Credit = Credit Pool / (number of E-SFA Customers enrolled at end of previous program year * 12 billing months)

The E-SFA Customer Credit will be applied to the electric portion of customer's bills, after the application of any other applicable customer bill credits are applied. If the E-SFA Customer Credit causes the customer's monthly bill to be less than zero, the amount less than zero caused by the E-SFA Customer Credit will be banked to the customer's account and applied to future bills. If a customer opts-out during a program year the customer will receive a final credit during the current month of the opt-out and will not receive further credits.

29.5.3.2 Following the first year of the program, the E-SFA Credit for subsequent years will include a reconciliation balance of the previous year's compensation, credits and payments. The reconciliation balance will be determined as i) the actual Value Stack compensation associated with the E-SFA CDG Projects during the previous program year as specified in Rule 40, minus ii) the actual E-SFA Customer Credits provided during the previous program year, as specified in 29.5.3.1, minus iii) the actual E-SFA CDG Project Payments provided during the previous program year, as specified in 29.5.4, minus iv) the actual Utility Administrative Fee determined for the previous program year as specified in 29.5.5. The annual reconciliations will include carrying charges based on the Company's pre-tax WACC and will be added to the Credit Pool used to determine the E-SFA Credit in the following program year as specified in 29.5.3.1.

GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.5.4 E-SFA CDG Project Payment

The Company will pay the E-SFA CDG Project the Value Stack compensation calculated by the Company for the project for the previous month, in accordance with Rule 40, multiplied by their assigned Compensation Level percentage. Payments will be made monthly and separate from the retail bill.

29.5.5 E-SFA Utility Administrative Fee

The Company will collect an E-SFA Utility Administrative Fee to offset incremental costs incurred in implementing and administering the E-SFA Program. The fee will be forecasted for the upcoming program year and will be based initially as one percent of the forecasted annual value of the participating E-SFA CDG Project's total Value Stack credits. On an annual basis, the Company will compare its actual annual incremental implementation and administrative costs of the E-SFA Program for the previous year to the amount collected in that year in the E-SFA Utility Administrative Fee. To the extent that the annual costs exceed the amount recovered, the Company will adjust the E-SFA Utility Administrative Fee for the following program year to recover the difference. To the extent that the annual amount recovered in the E-SFA Utility Administrative Fee exceeds the annual costs, the excess amount will be returned to customers through the annual reconciliation of the Value Stack Surcharge, provided that if the Company's actual incremental costs are less than one percent of the aggregated Value Stack credits of the E-SFA CDG Projects in the program year, the Company will return fifty percent of the excess amount through the Value Stack Surcharge.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

40.2.2 Requirements:

All projects compensated under the VDER Value Stack must be equipped with interval meters, in accordance with Rule No. 25 – Meter, capable of recording net hourly consumption and injection. The customer will be responsible for the cost of such interval meters. Alternatively, customers can arrange for their Facility to be separately metered from their consumption with the additional metering cost to be borne by the customer in accordance with Rule No. 25 – Meter.

40.2.2.1 For new RNM and CDG projects, interval metering must be installed by the time of interconnection.

40.2.2.2 For large on-site projects, where an insufficient meter may be present, interval metering should be installed as soon as practicable.

40.2.2.3 Any mass market customer that opts into the VDER Value Stack tariff must have an interval meter installed before VDER Value Stack compensation can be received.

40.2.3 VDER Value Stack Crediting:

In each billing period, the Company shall pay a credit to the project for net hourly injections from the Facility by summing the credits available from the individual VDER Value Stack components as calculated in Rule 40.2.3.1 for projects that are not paired with energy storage and in Rule 40.2.3.2 for Hybrid Facilities.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

40.2.3.1 Projects Not Paired with Energy Storage:

i. Value Stack Energy Component:

The Value Stack Energy Component is based on the NYISO day-ahead hourly zonal LBMP, inclusive of losses, applied to the project's hourly net injections in the billing period; losses will vary by voltage delivery level as specified in Rule 39.18.1.1.

For CDG projects participating in the CDG Net Crediting Program, the applicable Value Stack Energy Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable Value Stack Energy Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the Value Stack Energy Component calculated will be determined for each satellite by multiplying the sum of the hourly components calculated above by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The Energy Component associated with any percentage remaining when the sum of the satellite percentages is less than 100% ("Unallocated Satellite Percentage") will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

c. Alternative 3 – The Value Stack Capacity Component compensation will be the product of: i) the project's net kW injection during the hour of the New York Control Area ("NYCA") peak in the previous year, and ii) the effective Alternative 3 Value Stack Capacity rate. The Alternative 3 Value Stack Capacity rate will be determined as the forecasted LBMCP ($/kW-mo.) rate times the sum of one plus the Unforced Capacity Requirement of the NYISO.

A Customer-Generator with an intermittent technology is eligible to elect Alternative 3 and must make such election by May 1 to be eligible to receive the rate beginning June 1 of that year. A Customer-Generator with intermittent technology electing Alternative 3 after May 1 will be compensated under Alternative 1 until April 30 of the following calendar year.

A request for a change in Value Stack Capacity Component compensation submitted by a Customer-Generator with intermittent generation is subject to the following limitations:

i. A project compensated under Alternative 1 may switch to compensation under Alternative 2 or to Alternative 3;
ii. A project compensated under Alternative 2 may switch to Alternative 3;
iii. A project compensated under Alternative 2 cannot switch to Alternative 1; and
iv. A project compensated under Alternative 3 cannot switch to Alternative 1 or Alternative 2.

For CDG projects participating in the CDG Net Crediting Program, the applicable Value Stack Capacity Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable Value Stack Capacity Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the Value Stack Capacity Component will be determined for each satellite by multiplying the applicable capacity components calculated in 40.2.3.1 ii. a, b, or c above by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The Value Stack Capacity Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

iii. Value Stack Environmental Component

The Environmental Component will be calculated by multiplying: i) the sum of the project's total net injections for the billing period (kWh), by ii) the Environmental Component rate established at the time of the project's Eligibility Date. The Environmental Component rate will be the higher of:

a. the Tier 1 Renewable Energy Certificate ("REC") weighted average procurement price from the most recent solicitation as published by NYSERDA; or
b. the Social Cost of Carbon ("SCC"), net of the expected Regional Greenhouse Gas Initiative ("RGGI") allowance values, as calculated by NYS Department of Public Service Staff.

The Environmental Component rate will be shown in a statement filed with the PSC and will be fixed for the entire term of the project's 25-year compensation under the VDER Value Stack where such term begins with the project's interconnection date. Customer-Generators have a one-time, irrevocable election at the time of interconnection to opt out of the Environmental Component to preserve the opportunity to participate in voluntary market environmental and sustainability certification programs by retaining the project's RECs. Customer-Generators who do not exercise this opt-out election will transfer all RECs generated by the project to the Company and the Company will be the Responsible Party within the New York Generation Attribute Tracking System ("NYGATS") for all Tier 1 eligible Value Stack projects receiving compensation under the Environmental Component and will receive all associated RECs. This also applies to Tranche 0 Customer-Generators who opt-in to the VDER Value Stack but do not opt-out of the Environmental Component. Customer-Generators who elect to retain their project's RECs will not receive compensation under the Environmental Component and must designate a Responsible Party within the NYGATS.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

For CDG projects participating in the CDG Net Crediting Program, the applicable Environmental Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable Environmental Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the Environmental Component will be determined for each satellite by multiplying the applicable Environmental Component calculated above by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The Environmental Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.

Projects eligible under Rule 40.2.1.1.2 are not eligible to receive the Environmental Component compensation.

The Environmental Component is available to Customer-Generators with projects that meet the definition of renewable energy systems in PSL §66-p, unless the resource was eligible before August 13, 2019. Customer-Generators with an Eligibility Date prior to August 13, 2019 are eligible for the Environmental Component if the project is eligible to participate in the CES to receive Tier 1 RECs, according to the CES rules.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

iv. Value Stack Demand Reduction Value ("DRV") Component:

Projects Eligible for Value Stack on or before July 26, 2018:

The Demand Reduction Value ("DRV") Component will be calculated by multiplying: i) the average of the project's net kW injections for each of the Company's ten (10) highest peak hours during the preceding calendar year, by ii) the project's applicable DRV Component rate ($/kW-mo.) in effect during the billing period. If an interval meter was not in service for the project at the time of the Company's ten (10) highest peak hours during the preceding calendar year, then the Company will estimate the project's net injections for those hours.

The DRV Component rate will be fixed for the project for three (3) years from the interconnection date, using the DRV Component rate established at the time of the project's Eligibility Date. The project's DRV rate will be adjusted by the Company after three (3) years from the interconnection date to the DRV in effect at that time.

The DRV Component is not applicable to customers who receive the Value Stack MTC Component, which include CDG satellites that are mass market customers and mass market customers who opt into the Value Stack per Rule 40.2.1.8.

Projects may elect to participate in the Company's Commercial System Relief Program ("CSRP"); however, Customer-Generators making such election must forgo DRV compensation. This is a one-time, irrevocable decision that may be made at any point during a project's Value Stack compensation term, in accordance with Rule 62.1. Customer-Generators that choose this election shall not receive DRV compensation for the remainder of their project term.

Projects may elect to participate in the Company's Term-DLM Program or Auto-DLM Program; however, Customer-Generators making such election must forgo DRV compensation for the duration of their participation in either the Term-DLM Program or Auto-DLM Program under Rule 65.1.

For CDG projects participating in the CDG Net Crediting Program, the DRV Component calculated above will only apply to non-mass market satellites and will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable DRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the DRV Component will only apply to non-mass market satellites and will be determined for each non-mass market satellite by multiplying the applicable DRV Component rate calculated above by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The DRV Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.

Projects Eligible for Value Stack after July 26, 2018:

The DRV Component will be calculated by multiplying: i) the project's net injections (kWh) each bill period during the hours of 2:00 pm to 7:00 pm weekdays, non-holidays, between June 24 and September 15 inclusive, by ii) the project's hourly DRV Component rate ($/kWh). The project's hourly DRV Component rate will be determined by multiplying the Company's $/kW-year DRV Component rate in effect at the time of the project's Eligibility Date by ten (10) years and then dividing the result by the total number of eligible hours in the ten-year eligibility period for the project. This hourly DRV component rate will be fixed for the first ten (10) years of the project's operation. At the end of the ten-year period, the hourly DRV Component rate ($/kWh) will be the DRV rate and hours in effect during the billing period.

Projects may elect to participation in the Company's CSRP; however, Customer-Generators making such election must forgo DRV compensation. This is a one-time, irrevocable decision that may be made at any point during a project's Value Stack compensation term, in accordance with Rule 62.1. Customer-Generators that chose this election, shall not receive DRV compensation for the remainder of the project term.

Projects may elect to participate in the Company's Term-DLM Program or Auto-DLM Program; however, Customer-Generators making such election must forgo DRV compensation for the duration of their participation in the Term-DLM Program or Auto-DLM Program under Rule 65.1.

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GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

For CDG projects participating in the CDG Net Crediting Program, the applicable DRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to all CDG Satellites, as specified in Rule 29.4, except for CDG Satellites of CDG projects that opt into the Company's CSRP, Term-DLM Program, or Auto-DLM Program.

For CDG projects participating in the E-SFA Program, the applicable DRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5, except for CDG Satellites of CDG projects that opt into the Company's CSRP, Term-DLM Program, or Auto-DLM Program.

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the DRV Component will apply to all CDG Satellites, with the exception of CDG Satellites of projects that opt into the Company's CSRP, Term-DLM Program, or Auto-DLM Program. The DRV Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

v. Value Stack Locational System Relief Value ("LSRV") Component:

The LSRV Component will only be available to projects located in LSRV areas at the time of their Eligibility Date. Eligible LSRV areas that have been identified by the Company will be available on the Company's website and displayed on a statement filed with the PSC. If a project previously included in an LSRV area's MW capacity limit is canceled or abandoned, that project's proposed capacity shall be returned to the LSRV area's MW capacity limit and the revised remaining capacity will be displayed on a statement filed with the PSC.

Existing Customer-Generators located in an LSRV area that opt into the Value Stack will not receive the LSRV Component.

Projects may elect to participate in the Company's CSRP; however, Customer-Generators making such election must forgo LSRV compensation. This is a one-time, irrevocable decision that may be made at any point during a project's Value Stack compensation term, in accordance with Rule 62.1. Customer-Generators that chose this election, shall not receive LSRV compensation for the remainder of the project term.

Projects may elect to participate in the Company's Term-DLM Program or Auto-DLM Program; however, Customer-Generators making such election must forgo LSRV compensation for the duration of their participation in the Term-DLM Program or Auto-DLM Program under Rule 65.1.

Projects Eligible for Value Stack on or before July 26, 2018:

The LSRV Component will be calculated by multiplying: i) the average of the project's net kW injections for each of the Company's ten (10) highest peak hours during the preceding calendar year, by ii) the project's LSRV Component rate ($/kW-mo.) in effect during the billing period. If an interval meter was not in service for the project at the time of the Company's ten (10) highest peak hours during the preceding calendar year, the Company will estimate the project's net injections for those hours.

The LSRV Component rate will be fixed for the first ten (10) years from the project's interconnection date and the project's applicable LSRV Component rate will be the LSRV rate ($/kW-mo.) as filed by the Company in a statement with the PSC, in effect at the time of the project's Eligibility Date.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

For CDG projects participating in the CDG Net Crediting Program, the LSRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable LSRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For eligible CDG projects not participating in either the CDG Net Crediting Model, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the LSRV Component will be determined for each satellite by multiplying the project's applicable LSRV Component rate ($/kW-mo.) by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The LSRV Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.

Projects Eligible for Value Stack after July 26, 2018:

Projects eligible for the LSRV Component will be compensated for responding to Company-called events ("LSRV Call Events"). The project's LSRV Component will be the sum of all LSRV Call Event calculations, as specified below, during the billing period. In the event that an LSRV Call Event spans two billing periods, the project will only be compensated once for the LSRV Call Event.

The compensation for each LSRV Call Event will be determined by: i) the project's lowest hourly net kW injection during the LSRV Call Event; multiplied by ii) the project's applicable LSRV Call Component rate as set out below.

The project's applicable LSRV Call Component rate ($/kW) will be the project's applicable LSRV Component rate ($/kW-mo.), as specified below, multiplied by 12 (months) and divided by 10 (annual minimum calls per year).

The project's applicable LSRV Component rate ($/kW-mo.) will be determined as the LSRV rate ($/kW-mo.), as filed by the Company in a statement with the PSC in effect at the time of the project's Eligibility Date and will be fixed for the first ten (10) years from the project's interconnection date.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

For CDG projects participating in the CDG Net Crediting Program, the LSRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable LSRV Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For eligible CDG projects not participating in either the CDG Net Crediting Program as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the LSRV Component will be determined for each satellite by multiplying the project's applicable LSRV Component rate ($/kW-mo.) by the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The LSRV Component associated with any Unallocated Satellite Percentage will be banked for later distribution by the CDG project sponsor as specified in Rule 40.2.5.

LSRV Call Events:

i. The Company will call LSRV Call Events at least 21 hours in advance of the start of the LSRV Call Event.
ii. Each LSRV Call Event will be between one (1) hour and four (4) hours in duration.
iii. LSRV Call Events will generally be within the hours of 2:00 pm to 7:00 pm on non-holiday weekdays between June 24 and September 15 inclusive. The Company reserves the right to call LSRV Call Events outside of those hours if system needs warrant.
iv. The Company reserves the right to combine LSRV areas into up to four (4) LSRV groups with different four (4)-hour call windows, each of which may be called independently based on sub-system load conditions.
v. The Company will call a minimum of ten (10) LSRV Call Events per year for each LSRV area or group but may issue more depending on system needs. Compensation level for all calls will remain at the same level regardless of frequency.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

vi. Value Stack Market Transition Credit ("MTC") Component:

The MTC Component will only apply to CDG projects with an Eligibility Date on or before July 26, 2018 which also meet the further requirements specified herein.

The MTC Component will apply only to a CDG project's mass market satellites and those mass market customers who opt into the VDER Value Stack compensation per Rule 40.2.1.8. Projects eligible under Rules 40.2.1.1.1 and 40.2.1.1.2 are not eligible to receive the MTC Component compensation. The MTC Component will be calculated by multiplying: i) the sum of the project's total net injections for the billing period (kWh), and ii) the MTC Component rate applicable to the project's assigned Tranche and applicable service class.

For CDG projects participating in the CDG Net Crediting Program, the MTC Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable MTC Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the MTC Component will be calculated for each individual mass market satellite customer by multiplying: i) the sum of the project's total net injections for the billing period (kWh), ii) the MTC Component rate applicable to the project's assigned Tranche and satellite's service class, and iii) the satellite's allocation percentage in effect for the billing period as provided by the CDG project sponsor. The CDG project sponsor (CDG Host as described in Rule 29.4) will not be allowed to bank any MTC components related to Unallocated Satellite Percentages. CDG projects receiving MTC compensation cannot opt-into receiving the Community Credit component, as described below.

The MTC Component will be fixed for the project's 25-year compensation term and will be shown in a statement filed with the PSC.

Any high-capacity-factor resource (*i.e.,* fuel cell) CDG project receiving Value Stack compensation with an Eligibility Date on or after August 13, 2019 shall receive an adjusted MTC Component rate determined as the effective MTC Component rate multiplied by an adjustment factor of 0.16. Any high-capacity-factor resource (*i.e.,* fuel cell) CDG project receiving Value Stack compensation with an Eligibility Date before August 13, 2019 shall receive the unadjusted MTC Component.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER) (Continued)

vii. Value Stack Community Credit Component:

The Community Credit Component will apply to non-mass market satellites (as defined in Rule 40.1) in CDG projects with an Eligibility Date on or before July 26, 2018 and to all satellites in CDG projects with an Eligibility Date after July 26, 2018 which also meet the further requirements specified herein. Projects eligible under Rules 40.2.1.4, 40.2.1.1.1, and 40.2.1.1.2 are not eligible to receive the Community Credit Component compensation.

The Community Credit Component will be calculated by multiplying: i) the sum of the CDG project's total net injections for the billing period (kWh), and ii) the project's Community Credit Component rate applicable to the project's assigned Community Credit Tranche as filed by the Company in a statement with the PSC. The Community Credit Compensation for non-mass market satellites in CDG projects with an Eligibility Date on or before July 26, 2018 shall begin starting with the first billing cycle for that project in which the entire billing period is after July 31, 2020.

For CDG projects participating in the CDG Net Crediting Program. the Community Credit Component calculated above will be included in the calculation of the Value Stack Credits that will apply to CDG Satellites as specified in Rule 29.4.

For CDG projects participating in the E-SFA Program, the applicable Community Credit Component calculated above will be included in the calculation of the Value Stack Credits that will apply to the aggregated E-SFA Program compensation, as specified in Rule 29.5.

For CDG projects not participating in either the CDG Net Crediting Program, as specified in Rule 29.4, or the E-SFA Program, as specified in Rule 29.5, the Community Credit Component will apply to all CDG satellite accounts.

The project's Community Credit rate will be fixed for the first twenty-five (25) years following the project's interconnection date.

The CDG project sponsor (or CDG Host, as described in Rule 29.4) will not be allowed to bank any Community Credit Components related to Unallocated Satellite Percentages.

Any high-capacity-factor resource (*i.e.,* fuel cell) CDG project receiving Value Stack compensation with an Eligibility Date on or after August 13, 2019 shall receive an adjusted Community Credit rate determined as the effective Community Credit rate multiplied by an adjustment factor of 0.16. Any high-capacity-factor resource (*i.e.,* fuel cell) CDG project receiving Value Stack compensation with an Eligibility Date before August 13, 2019 shall receive the unadjusted Community Credit.

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)

40.3 Value of Distributed Energy Resources (VDER) Value Stack Cost Recovery
The VDER Value Stack Cost Recovery provides for recovery of costs incurred by the Company from customers, as approved by the Commission, for compensation provided to eligible projects under the VDER Value Stack Rule 40.2, the Value Stack Compensation for CDG projects participating in the CDG Net Crediting Program in Rule 29.4, and Value Stack Compensation for CDG projects participating in the E-SFA Program in Rule 29.5.

40.3.1 The VDER Value Stack Cost Recovery is applicable to all customers taking service under P.S.C 220 and 214 Electricity, regardless of supplier. The VDER Value Stack Cost Recovery will be applicable to all delivery customers' load, including NYPA load delivered by the Company and economic development-qualifying load in Rule 34, with the exception of the Environmental Market Value Costs which will apply to all supply customers as specified in 40.3.2.3.

40.3.2 The Recovery of the VDER Value Stack Costs will be determined on a VDER Value Stack component basis for applicable service classes using allocation methods as further described below:

40.3.2.1 Capacity Market Value Cost Recovery

40.3.2.1.1 The Capacity Market Value costs will be determined for the recovery month as the product of i) the sum of all VDER Value Stack project's net injections at the hour of the NYISO system peak during the previous calendar year and ii) the average of the NYISO monthly spot auction capacity prices for the previous calendar year.

40.3.2.1.2 The Capacity Market Value costs will be recovered from all delivery customers, allocated by service class based on the most recent transmission demand allocator (*i.e.*, single coincident peak) from the Company's most current embedded cost of service study (ECOS).

40.3.2.1.3 The Capacity Market Value costs will be recovered on a per kWh basis for non-demand customers and a per kW basis for demand customers.

PSC NO: 220 ELECTRICITY
NIAGARA MOHAWK POWER CORPORATION
INITIAL EFFECTIVE DATE:
STAMPS:

LEAF: 220.9.1
REVISION:
SUPERSEDING REVISION:

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)

40.3.2.2 Capacity Out of Market Value Cost Recovery

40.3.2.2.1 The Capacity Out of Market Value costs will be determined monthly as the difference between i) the sum of all VDER Value Stack Capacity Components paid to projects and satellites, where applicable, during the recovery month and ii) the Market Value determined in 40.3.2.1 for the recovery month.

40.3.2.2.2 The Capacity Out of Market Value costs will be recovered from all delivery customers, with respective costs allocated to the service classes of the projects and satellites, where applicable, who receive the VDER Value Stack Capacity Component credits, in proportion to the credits that projects and satellites, where applicable, of each service class receive.

40.3.2.2.3 The Capacity Out of Market Value costs will be recovered on a per kWh basis for non-demand customers and a per kW basis for demand customers.