STATE OF NEW YORK PUBLIC SERVICE COMMISSION	I	
 In the Matter of)	
Consolidated Billing for)	Case 19-M-0463
Distributed Energy Resources)	

VERIFIED PETITION OF NIAGARA MOHAWK POWER CORPORATION D/B/A NATIONAL GRID FOR AUTHORITY TO IMPLEMENT COMMUNITY DISTRIBUTED GENERATION PLATFORM

NIAGARA MOHAWK POWER CORPORATION d/b/a NATIONAL GRID

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Dated: September 11, 2019

VERIFIED PETITION OF NIAGARA MOHAWK POWER CORPORATION d/b/a NATIONAL GRID FOR AUTHORITY TO IMPLEMENT COMMUNITY DISTRIBUTED GENERATION PLATFORM

Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid" or the "Company") hereby respectfully petitions the Public Service Commission ("Commission") pursuant to Section 66 of the New York State Public Service Law ("PSL") and Part 17 of the Commission's Rules, 16 NYCRR pt. 17, for authority to implement a Community Distributed Generation Platform ("CDG-P") program intended to reduce market barriers believed to have impeded development of Community Distributed Generation ("CDG") in the Company's service territory and animate the market for customer participation in CDG. As described below, the CDG-P proposal, if implemented, would expand customer access to CDG, particularly among low-to-moderate income ("LMI") customers, accelerate deployment of zero emissions generation resources, and help reduce costs for non-participating customers. For these reasons, the proposal is just and reasonable and in the public interest and should be approved by the Commission.

I. BACKGROUND

National Grid is a corporation duly organized and existing under the laws of the State of New York with its principal place of business at 300 Erie Boulevard West, Syracuse, New York 13202. Certified copies of the Company's certificate of incorporation, certificate of merger and consolidation, and all amendments thereto have been previously filed with the Commission.

A. Community Distributed Generation

By order issued July 17, 2015, the Commission established a CDG program.¹ The "purpose of [CDG] is to open 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."² Such customers may include renters or others that do not have access to a rooftop or other resources to host on-site generation.

The current CDG program operates pursuant to a model in which a CDG host contracts with CDG satellite customers through subscription arrangements. Under the subscriptions, the CDG host designates the allocation of bill credits to subscribed satellite customers' utility accounts. These credits reduce the satellite customers' utility bills. The CDG host separately invoices customers for the value of the bill credits through a subscription fee.

Although other electric utilities in New York State have experienced significant CDG activity, CDG development has not been robust in National Grid's service territory. The Commission has issued several orders on CDG in the past few years aimed at improving the operation and accessibility of the program; nevertheless, CDG development in National Grid's service territory is well below its potential. As of August 27, 2019, nearly two years after the Phase One Order,³ only 23.746 MW of the 72.11 MW of CDG projects for Tranches 0-2 in National Grid's service territory had been interconnected.

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 ("CDG Proceeding"), Order Establishing a Community Distributed Generation Program and Making Other Findings (issued July 17, 2015) ("CDG Order"). ² *Id.*, p. 3.

³ Cases 15-E-0082 and 15-E-0751 (VDER Proceeding et al.), Order on Phase One Value of Distributed Energy Resources Implementation Proposals, Cost Mitigation Issues, and Related Matters (issued September 14, 2017) ("Phase One Order").

The introduction of the Community Credit appears to have increased CDG market activity in the Company's service territory—there is now approximately 294 MW of capacity in the Company's interconnection queue, across 79 projects that qualified after July 26, 2018. However, several factors that are suspected to have contributed to the initial slow CDG growth in the Company's service area still remain. One such factor is the need under the current program structure for multiple customer bills. Under the existing model, CDG customers receive two bills: one for their subscription fee from their CDG host, and another from their utility (which reflects their CDG credit). The additional transactions and touch points can create increased complexity for customers and increased costs for developers, which may dissuade parties from seeking or pursuing CDG opportunities. Another factor affecting CDG development is the credit risk faced by CDG hosts under the existing structure. Because they are required to contract directly with CDG satellites for subscription fee payments, CDG hosts are exposed to individual customer credit risk and tend to contract only with customers with excellent credit profiles. This can create a particularly troubling barrier to CDG participation for LMI customers, who are among the prime candidates for CDG.

B. Commission's Consolidated Billing Examination

In the Phase One Order,⁴ the Commission stated the:

Cost-effective consolidated billing represents an important opportunity to reduce soft costs associated with CDG. Furthermore, consistent with REV, it offers an opportunity for utilities to earn fees by providing services to DER markets. Under consolidated billing, the utilities would collect CDG customer payment for subscriber fees, and remit those payments to the CDG provider less any processing fee charged by the utility.

To examine options to address some of the challenges believed to be depressing CDG activity, the Commission directed the utilities to, among other things, evaluate the practicality, costs and

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⁴ Phase One Order, p. 48.

timeline for implementing consolidated billing within twelve months.⁵ The Joint Utilities, including the Company, filed their response to the Commission's directive November 13, 2017.⁶ On June 18, 2019, the Commission established this proceeding pursuant to a notice soliciting feedback on nine specific questions regarding consolidated billing for CDG ("Notice").⁷ On September 3, 2019, National Grid and the other Joint Utilities submitted a response to the Notice. In summary, the Joint Utilities' response identified several important considerations affecting the ability to implement traditional consolidated billing for CDG that could require substantial time to resolve, while also noting that a Net Crediting Model could provide a simpler alternative to achieve many of the beneficial objectives sought to be achieved with consolidated billing.

II. <u>CDG PLATFORM PROPOSAL</u>

In an effort to accelerate and further animate the CDG market in its service territory,

National Grid is proposing to implement a CDG-P program based on a Net Crediting Model

designed to address some of the barriers that have prevented rapid deployment of solar CDG in
the Company's service territory. The CDG-P proposal would consist of two distinct elements.

The primary element would be a Net Credit Allocation methodology ("Platform 1"). The Net

Credit Allocation methodology is the foundation of the CDG-P and is intended to simplify

billing and compensation for CDG satellites and hosts. The second element of the Company's

proposal is an optional Customer Acquisition and Turnover Management service ("Platform 2").

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⁵ *Id.*, Ordering Clause 11, p. 55.

⁶ Cases 15-E-0082 and 15-E-0751, *Joint Utilities' Response to New York State Public Service Commission Order Requiring Utilities to File an Automation and Billing Report and an Evaluation of the Practicality, Cost, and Timeline for Implementing Consolidated Billing within Twelve Months (filed November 13, 2017).* The Joint Utilities consist of Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

⁷ Case 19-M-0463, In the Matter of Consolidated Billing for Distributed Energy Resources, *Notice Seeking Comments Regarding Consolidated Billing for Community Distributed Generation* (issued June 18, 2019) ("Notice").

Platform 2 is intended to increase market efficiency by reducing the costs to CDG hosts of engaging and enrolling CDG satellites.

In addition to improving the overall CDG customer experience and reducing CDG host costs, the Company's CDG-P proposal is designed to improve accessibility and CDG participation among LMI customers. This would be accomplished by requiring that credits to CDG satellites always be zero or above (*i.e.*, no "negative credits"). The "Net Credit" aspect of the proposal also dispenses with the need for CDG satellites to pay subscription fees directly to the CDG host for their share of CDG credits, and would eliminate credit risks to CDG hosts associated with non-payment of those subscription fees.

The CDG-P proposal also is designed to generate utility platform service revenues ("PSRs") for the services National Grid would provide. These PSRs would be shared between the Company and all delivery customers and would serve to reduce the costs of the CDG program to non-participating customers.

Attachment 1 to this petition provides a detailed description of the CDG-P proposal, and the principal features of the CDG-P proposal are summarized below.

A. Platform 1 – Net Credit Allocation

Under the current CDG program, developers enroll individual utility customers to become "subscribers" to CDG projects. These subscriptions entitle participating customers (*i.e.*, "CDG satellites") to receive credits on their utility bills based on their allocation percentage of the energy injections by the CDG project to National Grid's electric distribution system. As described in Rule 29.2 of the Company's Tariff,⁸ the CDG host must notify the utility of the credit amount to be applied to each CDG satellite 60 days before the credits are to be distributed

⁸ National Grid Schedule for Electric Service, P.S.C. No. 220 Electricity ("Tariff"), Rule 29.2.

to the CDG satellites. The CDG satellites, in turn, are required to remit their subscription fee payment directly to the CDG hosts for their respective credits in accordance with the terms of the contract between the CDG host and CDG satellite. A simplified depiction of this transaction structure is shown in Attachment 1, Figure 1 (p. 5).

The current structure has certain inefficiencies that may affect CDG development in National Grid's service territory. First, the need to separately bill customers for CDG subscription fees detracts from the customer experience and complicates the process of enrolling CDG satellites, adding cost and risk to CDG projects. The direct contracting arrangement also exposes the CDG host to risk of non-payment from individual CDG satellites. Currently the CDG satellite receives its full proportional credit on its utility bill, and is required to make payment under the terms of the subscription contract. As a result, CDG hosts typically contract only with customers with good credit histories.

Under the Platform 1 proposal, CDG hosts would continue to enroll customers and notify the utility as provided under Tariff Rule 29.2. However, rather than allocate the full proportional credit amount to a CDG satellite's bill, the Company would allocate a "net" credit amount to the customer. The net credit amount would never be less than zero (*i.e.*, no "negative credits"); therefore, the CDG satellite's utility bill would never be more under Platform 1 than the bill would have been if the satellite was not participating in CDG. The CDG hosts would receive payment directly from the utility, which would be based on the Value Stack compensation associated with the CDG host's injections to the Company's electric distribution system, less the

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⁹ Platform 1 could not be used to impose CDG charges on CDG satellites. However, the Company would not monitor arrangements directly between CDG hosts and satellites beyond the Platform services. *See* Tariff Rule 29.2.

net bill credits provided to CDG satellites and unallocated credits,¹⁰ less a fee to National Grid for providing the Platform 1 service. The proposed structure of Platform 1 addresses several of the characteristics of the current structure that are believed to have dampened CDG development in National Grid's service territory. A simplified depiction of the proposed Platform 1 transaction structure is shown in Attachment 1, Figure 2 (p. 6).¹¹

First, Platform 1 would reduce the number of transactions between satellites and hosts associated with CDG participation. Rather than CDG hosts having to invoice CDG satellites for the entire value of the CDG credit and the satellites sending payment to the host for the CDG credit on their utility bill, Platform 1 would allocate the "net" Value Stack credit to the CDG satellite, thereby eliminating some transaction steps. This would simplify the process for CDG satellites and hosts, and reduce the administrative costs of CDG transactions.

In addition, by eliminating the billing-payment transactions between CDG hosts and satellites, Platform 1 avoids the credit exposure CDG hosts have from satellite non-payment. By modifying the CDG transaction structure to address this credit risk exposure, Platform 1 would create greater accessibility to CDG participation for LMI customers. Further, because the program would be structured such that satellites would receive a net credit that is positive to zero (*i.e.*, never negative), CDG satellites would never pay more on their electric bills due to CDG participation than if they had not participated.

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¹⁰ Unallocated credits would be banked to the CDG host's account for subsequent allocation to CDG satellites. Per Tariff Rule 29.3.4 the CDG host cannot retain unallocated credits for its own use and if it is unable to allocate those credits, they are forfeited.

¹¹ Other requirements applicable to CDG hosts and satellites in Rule 29 of the Tariff would continue to apply, including that the allocation percentage for a CDG satellite must result in at least 1,000 kWh of bill credits annually, but cannot exceed the CDG satellite account's historic annual kWh usage or a forecasted average annual kWh usage if actual data are not available.

¹² A description of the Net Credit Allocation transaction is provided in Attachment 1, Section 1.2.1.1.

Finally, the CDG-P Platform 1 would generate PSRs related to the services National Grid provides. As noted in the CDG Order,

Under REV, however, utilities will offer platform services to REV participants, including Community DG and other distributed generation projects generally. Utilities will have an opportunity to earn revenues, through incentives or shared savings, from these services where the services add value, such as through reduced transaction expenses or combining with an electric storage alternative. Consequently, utilities may make filings, proposing for our consideration, competitive platform services and revenue mechanisms together with an implementation schedule, that add value, in conformance with REV, to the Community DG program.¹³

The Platform 1 billing services the Company proposes to provide are expected to reduce transaction costs, improve customer experience, increase accessibility, and therefore add value for CDG satellites and hosts. As described in Attachment 1, Appendix A1.2, the Company proposes to establish the price for those services at a rate that approximates the market rate for similar billing services that provide some of, but not all, the benefits that would be provided under the Platform 1 proposal. The revenues the Company receives for providing Platform 1 services would be shared 80/20 customer/Company, with customers' share going to offset the costs of the CDG Value Stack Compensation. Further discussion of the derivation of the CDG-P Platform 1 service fee is provided in Attachment 1.

B. Platform 2 – Customer Acquisition and Turnover Management

To further address perceived market inefficiencies to CDG development in its service territory, National Grid proposes to offer Customer Acquisition and Turnover Management services to solar CDG hosts through CDG-P Platform 2. Under Platform 2, the Company would use its brand recognition and position as the trusted utility partner to enroll customers with solar CDG hosts (or solar plus storage) and manage ongoing customer turnover. These additional

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¹³ CDG Order, p. 27 (internal citation omitted).

services would increase market efficiency and reduce the soft costs associated with CDG development.¹⁴ The standardized solar CDG offering the Company proposes for Platform 2 also would simplify the customer enrollment process.¹⁵ A simplified depiction of the proposed Platform 2 transaction structure is shown in Attachment 1, Figure 3 (p. 9).¹⁶

The Company proposes that the standardized solar CDG offering would include a CDG satellite discount of 10 percent off of their retail bill. This would assure that all customers participating in Platform 2 would pay less to participate in CDG than they otherwise would. In addition, because the Company would be enrolling customers into Platform 2, it proposes to reserve 20 percent of the capacity of participating Platform 2 CDG projects for low income customers. The Company has developed a marketing and customer engagement plan that would raise awareness and facilitate participation in Platform 2. The marketing plan prioritizes outreach to customers in traditionally underserved areas to promote equity in CDG accessibility. A copy of the Company's initial marketing plan is provided in Attachment 1, Appendix 6.

The Company proposes that Platform 2 services would be available to new solar CDG hosts on an opt-in basis for a fee ("CDG-P Acquisition Fee"). The Platform 2 service would also include the Net Credit Allocation structure provided under Platform 1 (with minor modifications). Fees collected by the Company for Platform 2 service also would be shared

¹⁴ Because the Company would assume responsibility for the customer relationship under Platform 2, it also proposes to assume responsibility for any applicable reporting requirements of the UBP-DERS for customers enrolled in the Platform 2 Satellite Offer. *See*, part V. Reporting, *infra*. Therefore, various requirements under the UBP-DERS presumably would not apply to CDG hosts with respect to Platform 2 satellite customers.

¹⁵ The Company proposes to offer Platform 2 service only to new solar and solar + storage Value Stack CDG projects to enable the Company to cost-effectively market CDG subscriptions with simplified and streamlined marketing messages and enrollment processes. Refer to Attachment 1, Appendix 2 for more detail regarding CDG project eligibility requirements for the Platform 2 service.

¹⁶ Similar to Platform 1, other requirements applicable to CDG hosts and satellites in Rule 29 of the Tariff would continue to apply to Platform 2 service. See note 11, *supra*.

80/20 with customers as a PSR. A detailed description of the Platform 2 proposal is provided in Attachment 1, Section 1.2.2. and Attachment 1, Appendix 2.

III. <u>CDG-P PROGRAM COSTS AND RECOVERY</u>

The Company's revenue requirement associated with the Platform 1 and Platform 2 offerings includes all capital expenditures and operating expenses related to marketing, internal labor, as well as IT and billing system implementation. Details of the Company's fiscal year revenue requirement associated with Platform 1 and Platform 2 are found in Attachment 1, Appendix 3. The Company proposes to defer the revenue requirement associated with providing the Platform 1 and Platform 2 services for recovery in the Company's next rate case. Any ongoing costs incurred in later years will be recovered as part of the rate allowance in the Company's next rate case. In developing the revenue requirement, the Company applied a pretax weighted average cost of capital ("WACC") of 7.99 percent, which equates to a post-tax WACC of 6.45 percent. The WACC assumptions are based on the Commission-approved WACC for fiscal year 2021, the last year of the Company's current rate plan approved in Case 17-E-0238.¹⁷

IV. <u>IMPLEMENTATION TIMELINE</u>

The Company proposes to implement the CDG-P program in two phases: (1) the Company would launch Platform 1 approximately six months following a Commission approval; and (2) Platform 2 would be launched approximately ten months following Commission approval. Platform 1 implementation will include development of IT and billing infrastructure

¹⁷ Case 17-E-0238, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Electric Service, *Order Adopting Terms of Joint Proposal and Establishing Electric and Gas Rate Plans* (issued and effective March 15, 2018).

¹⁸ Actual timing of the Platform 2 launch will depend upon procurement and integration of a third party software platform and could take longer.

required to deliver the Net Credit Allocation model. The Company plans to develop a manual billing process and a Host Enrollment Portal immediately following Commission approval and expects that these two workstreams will take approximately six months to complete.¹⁹ The Company will simultaneously work to automate the Net Credit Allocation billing process, though the full automation of the billing solution is linked to the existing plan to automate the Value Stack bill credit allocation and is expected to take until approximately August 2021.

Platform 2 implementation will include three concurrent work streams to be carried out over approximately ten months. Workstream 1 will consist of the procurement, development, and implementation of the IT systems required to implement the Platform 2 services.

Workstream 2 will focus on the enrollment of CDG hosts in the Platform 2 Host Offer, and Workstream 3 will focus on implementation of the proposed marketing plan and enrollment of CDG satellites in the Platform 2 Satellite Offer.

So as to make the Platform 1 and Platform 2 service offerings available to customers and project developers as soon as practical, the Company respectfully requests Commission approval of the CDG-P proposal by January 1, 2020. Further information and detail on the CDG-P implementation plan and timeline is provided in Attachment 1, Section 2.

V. REPORTING

The Company proposes to provide an annual CDG-P report to the Commission that would include, among other things, information about CDG projects participating in Platform 1 and Platform 2, the number of CDG satellites participating in Platform 2, the number of low income customers enrolled in the Platform 2 Satellite Offer (based on Energy Affordability Program ("EAP") participation), the costs of the CDG-P program, the amount of PSR recovered

¹⁹ Refer to Attachment 1, Appendix 5, for more detail regarding the Host Enrollment portal.

under the CDG-P and the allocation of that recovery, and customer complaints to the Company regarding the CDG-P program.

The Company also will provide information annually to CDG satellites participating in the Platform 2 Satellite Offer. Because the Company intends to assume responsibility for the customer relationship under Platform 2, it also proposes to assume responsibility for any applicable reporting requirements of the UBP-DERS for customers enrolled in the Platform 2 Satellite Offer, and its annual reporting would conform to the UBP-DERS.

Additional information regarding the Company's proposed reporting under the CDG-P program is provided in Attachment 1, Section 2.7.

VI. PROPOSED TARIFF CHANGES

To implement the CDG-P program as described in Attachment 1, the Company proposes to amend Rules 29 and 40 of the Tariff. The proposed changes would add new Rule 29.4 (Community Distributed Generation Platform ("CDG-P")) to implement the CDG-P program, and modify Rules 40.2.3 (VDER Value Stack Crediting) and 40.3 (Value of Distributed Energy Resources (VDER) Value Stack Cost Recovery). New Rule 29.4 sets out the transaction steps to implement Platform 1 and Platform 2 service offerings, describes eligibility requirements for the Platform 2 Host Offer, and provides other details associated with implementing the CDG-P program. The addition of Rule 29.4 would not modify the effectiveness of the existing Tariff provisions governing CDG (Rule 29.1-29.3) or affect CDG projects operating pursuant to those provisions.

The changes proposed in Rule 40.2.3 reflect how components of the Value Stack Compensation will be reflected for CDG projects participating in the CDG-P program. The

changes proposed in Rule 40.3 clarify that the VDER Value Stack Cost Recovery provisions would also apply to CDG projects participating in the CDG-P program under Rule 29.4.

The draft Tariff changes the Company proposes are provided in Attachment 2 in redlined and clean format.

VII. RELIEF REQUESTED

The CDG-P proposal presented herein is intended to reduce market barriers that are believed to have impeded CDG development in National Grid's service territory. The CDG-P proposal also would expand customer access to CDG, particularly among customer sectors that have been previously underserved by CDG. The proposal would provide an opportunity for the Company to generate PSRs that would be shared with delivery customers to reduce CDG costs for all delivery customers. In order to timely implement the proposal, the Company respectfully requests that by or before January 1, 2020, the Commission:

- Approve the Platform 1 and Platform 2 program offerings described herein and presented in detail in Attachment 1.
- Approve the proposed changes to Tariff Rules 29 and 40 shown in Attachment 2.
- Authorize the Company to defer for future recovery the costs of implementing the CDG-P program.
- Provide any other approvals or grants of authority as may be needed to implement the CDG-P program proposed herein.

CONCLUSION

The CDG-P program proposed by the Company would accelerate deployment of zero emissions CDG in National Grid's service territory, expand customer access to CDG, particularly among customer segments previously underserved by CDG, and help reduce costs

for non-participating customers. For these reasons, the proposal is just and reasonable and in the public interest and should be approved by the Commission. Accordingly, for the reasons stated above, National Grid respectfully requests that the Commission grant this petition for authority to implement the CDG-P proposal by or before January 1, 2020.

Respectfully submitted,

NIAGARA MOHAWK POWER CORPORATION d/b/a NATIONAL GRID

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Dated: September 11, 2019

VERIFICATION

STATE OF NEW YORK)
) SS:
COUNTY OF ONONDAGA)

David B. Doxsee, being duly sworn, deposes and says that he is a Vice President for Niagara Mohawk Power Corporation d/b/a National Grid; that he has read the foregoing Petition for Authority to Implement Community Distributed Generation Platform and knows the contents thereof; and that the statements made therein are true to the best of his knowledge, information and belief.

David B. Doxsee

Sworn to before me this

day of September, 2019

Notary Public

Mary Ann Baum
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01BA6023475
Qualified in Onondaga County
Commission Expires April 19, 20

ATTACHMENT 1

Community Distributed Generation Platform ("CDG-P") Program Description



CASE 19-M-0463

In the Matter of Consolidated Billing for Community Distributed Generation

Niagara Mohawk Power Corporation d/b/a National Grid Proposed Community Distributed Generation Platform

September 11, 2019

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Executive Summary

Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid" or the "Company") proposes to implement a Community Distributed Generation Platform ("CDG-P") program designed to address some of the barriers that have prevented rapid deployment of solar CDG¹ in the Company's service territory. The Company's CDG-P proposal has two distinct elements: (1) a Net Credit Allocation methodology to streamline and simplify compensation to CDG satellites and hosts ("Platform 1"); and (2) a new Customer Experience Management mechanism to reduce the costs of engaging and enrolling CDG satellites ("Platform 2"). In addition to improving the overall CDG customer experience and reducing CDG program costs, the Company's CDG-P proposal is designed to improve accessibility and CDG participation among low-to-moderate income ("LMI") customers, and generate platform service revenues ("PSRs") for National Grid which would be shared with its electric customers to reduce the costs of the CDG-P program to non-participating customers.

As described below, the Company believes its CDG-P proposal addresses many of the goals the Commission was aiming to address through CDG consolidated billing in a more expeditious, simpler manner with lower costs. The proposal also is expected to accelerate deployment of CDG projects in the Company's service territory and enable more customers to participate in the clean energy economy to help meet the State's clean energy objectives.

¹ Most of the CDG deployed to date utilizes solar photovoltaic technology.

1. Overview

1.1. Market Need

CDG is intended to give customers that might lack the ability to implement on-site clean energy investments directly an opportunity to participate in the clean energy economy and distributed generation. Such customers may include renters or others that do not have access to a rooftop or other resources to host on-site generation. To date, however, CDG deployment in National Grid's service territory has been modest compared to some areas in the state that have seen more robust CDG activity. As of August 27, 2019, nearly two years after the Value Stack Implementation Order,² only 23.746 MW of the 72.11 MW of CDG projects for Tranches 0-2 in National Grid's territory have been connected to the Company's system. The addition of the Community Credit appears to have catalyzed the market: there are now 293.96 MW of capacity in the Company's interconnection queue, across 79 projects that qualified after July 26, 2018.

Although the addition of the Community Credit appears to have catalyzed the market, there nevertheless remain factors that the Company believes have contributed to the slow and uneven deployment of CDG in National Grid's service territory, including:

- 1. <u>Billing and Crediting Complexity:</u> The current CDG program operates through a subscription model in which the CDG host designates the allocation of bill credits to subscribed CDG satellite customers' utility accounts. These credits reduce the satellite customers' utility bills. The CDG host then separately invoices customers through a subscription fee. The need for multiple transactions and bills adds complexity, confusion and cost to the process and can be a point of frustration for customers and CDG hosts alike.
- 2. <u>LMI Customer Access:</u> LMI customers have historically had limited access to CDG opportunities. The CDG program was created with the intention of expanding access to the benefits of on-site solar to customers that cannot take advantage of rooftop solar, with a specific focus on promoting low income customer participation.³ However, credit considerations on the part of CDG hosts are believed to have limited LMI customer participation in CDG direct subscription services.⁴

² Case 15-E-0751 and Case 15-E-0082, Order on Phase One Value of Distributed Energy Resources Implementation Proposals, Cost Mitigation Issues, and Related Matters (issued September 14, 2017).

³ 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 (issued July 17, 2015) ("CDG Order"), at 7 and 24.

⁴ See, e.g., Progress, But Community Solar Still Isn't Shared; The Cadmus Group, https://cadmusgroup.com/articles/community-solar-still-isnt-shared/ (noting that CDG project credit requirements

- 3. <u>Customer Acquisition:</u> Customer acquisition is a significant challenge for CDG hosts. Customer acquisition requires CDG hosts to engage potential customers through marketing channels, educate them about the benefits of CDG, and execute a contract with the customer that defines the terms of the CDG subscription.⁵ A CDG host may need to sign-up hundreds of satellite customers ("CDG satellites") to fully subscribe a single CDG project, which can be an expensive activity, often compounded by a lack of brand recognition or pre-existing customer trust of the CDG host.
- 4. <u>Customer Turnover:</u> Customer turnover occurs when CDG satellites end their CDG subscriptions with a CDG project, creating the need to backfill the departed customer. The CDG market is still nascent and limited data exist regarding long-term customer turnover rates for CDG project subscriptions. As a result, financing institutions view the management of customer acquisition and customer turnover as a risk, which can translate to increased financing costs for CDG facilities.

On June 18, 2019, the New York Public Service Commission (the "Commission") issued its *Notice Seeking Comments Regarding Consolidated Billing for Community Distributed Generation*. In their response to the Notice, the Joint Utilities identified the potential for a "Net Crediting Model" that could "provide simpler alternatives that would achieve many of the desired objectives [of consolidated billing] while more appropriately balancing other consideration."

The CDG-P proposal presented here is National Grid's proposal for implementing a Net Crediting Model as described by the Joint Utilities in the Company's service territory. Platform 1 of the Company's proposal would implement the foundational Net Crediting service; while

can "exclude[] a sizable portion of the population, making it even less likely for some owners and renters to access solar benefits") (last accessed August 27, 2019) (hereinafter, "The Cadmus Group").

⁵ Additionally, CDG Hosts must conform to the requirements of the Uniform Business Practices for Distributed Energy Resource Suppliers ("UBP-DERS") which include a registration requirement with submittal of a sample contract, disclosure of criminal or regulatory sanctions, posting of accepted registration form on the Department of Public Service ("DPS") website, adherence to marketing and advertising standards, plain language contract drafting standards, standard customer disclosure statements, annual reporting requirements, etc. *See* Case 15-M-0180, *In the Matter of Regulation and Oversight of Distributed Energy Resource Providers and Products* ("UBP-DERS Proceeding"), Order Establishing Oversight Framework and Uniform Business Practices for Distributed Energy Resource Suppliers (issued October 19, 2017). *See also* UBP-DERS Proceeding, Order Expanding Uniform Business Practices for Distributed Energy Resource Suppliers (issued March 14, 2019) ("UBP-DERS March 2019 Order").

⁶ Case 19-M-0463, *In the Matter of Consolidated Billing for Distributed Energy Resources*, Notice Seeking Comments Regarding Consolidated Billing for Community Distributed Generation (issued June 18, 2019) ("Notice").

⁷ The Joint Utilities consist of Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

⁸ Case 19-M-0463, *In the Matter of Consolidated Billing for Distributed Energy Resources*, Joint Utilities' Response Regarding Consolidated Billing for Community Distributed Generation (Sept. 3, 2019), p. 2.

Platform 2 would provide enhanced customer acquisition and turnover management services to solar CDG hosts to further accelerate that market segment.

The CDG-P framework the Company proposes would address several of the goals sought to be achieved by consolidated billing, but within a shorter timeframe and without many of the challenges the Joint Utilities' response notes are associated with consolidated billing. The CDG-P proposal presented here is designed to address market barriers to CDG in National Grid's service territory, and National Grid's proposed CDG-P Platform 1 service could provide valuable learnings that may be helpful in developing a broader Net Crediting Model statewide.

1.2. Proposed CDG-P Solution

The Company proposes to animate the CDG market in its service territory by implementing a CDG-P that provides the following two services:

- "Platform 1" Net Credit Allocation and default risk management; and
- "Platform 2" Customer acquisition and customer turnover management to solar CDG hosts.

Platform 1 would simplify existing billing and crediting complexities of the CDG program. It would also reduce CDG hosts' exposure to customer credit concerns, thereby removing one factor that may limit LMI customer access to CDG. Platform 2 would include the Net Credit Allocation of Platform 1 and build upon Platform 1 by also providing customer acquisition and customer turnover management services for solar CDG hosts. Providing these Platform 2 functions for solar CDG hosts is expected to simplify their business operations and enable them to focus more on the actual development of CDG projects. Both CDG-P services would be available to qualifying CDG hosts on an opt-in basis.⁹

CDG hosts taking Platform 1 or Platform 2 service would pay the Company a platform service revenue ("PSR") "fee" for each of those services. This PSR would be shared 80/20 among customers/Company, which would go towards offsetting the costs of CDG to non-participating customers.

Each Platform is described more fully below.

1.2.1. Platform 1 – Net Credit Allocation and Default Risk Management

The current CDG model, as summarized in Figure 1, below, has inefficiencies that have affected its rate of uptake in National Grid's service territory. CDG hosts today must contract directly

⁹ Platform 1 service would be available to all CDG technologies compensated under the Value Stack.

with satellite customers as off-takers of the project's output to monetize CDG credits. This is because the current CDG program structure limits CDG compensation to bill credits that may only be monetized by offsetting a satellite customer's bill. Because of the structure of the compensation transaction, CDG hosts are exposed to individual customer default risk and typically require subscribing satellite customers to have a FICO® score of 700 or above. This transaction structure and the direct contracting relationship are often cited as significant barriers to LMI customer access to CDG.

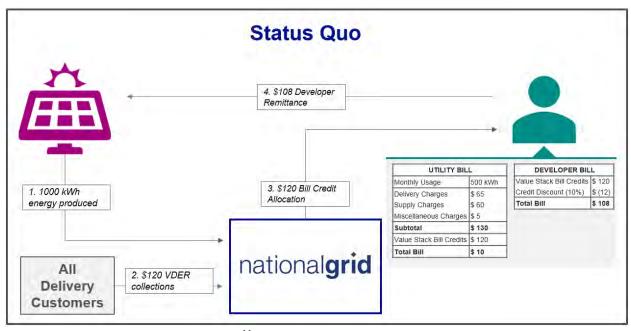


Figure 1: Status Quo CDG Transaction Map¹¹

The Company proposes to implement Platform 1 by revising the current transaction structure related to Value Stack compensation for CDG projects that subscribe to the service. Under the proposed transaction structure, Platform 1 would eliminate some of the factors that appear to present barriers to greater customer CDG participation.

¹⁰ Minimum credit requirements are often driven by financial lenders, who often set minimum credit score requirements for satellite customers as a condition of project financing. *See* The Cadmus Group, *supra* n. 1.

¹¹ This simplified example assumes an average Value Stack compensation rate of \$0.12/kWh with the Satellite customer receiving a 10% discount on the value of the bill credits purchased from the CDG Host. The "Environmental" component of the Value Stack compensation is only collected from supply customers, while all other components of the Value Stack Compensation are collected from all delivery customers.

1.2.1.1. Revised CDG Transaction Structure

The revised transaction structure for Platform 1 service is shown in Figure 2, below.

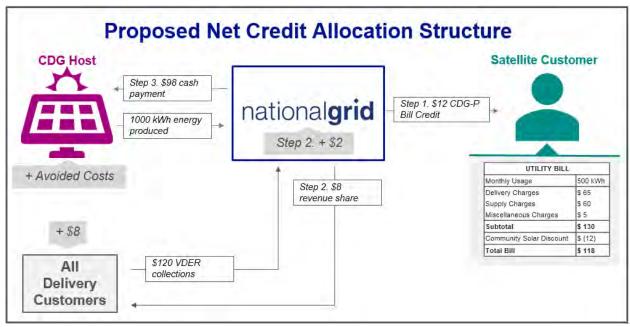


Figure 2: Proposed Net Credit Allocation Transaction Map

Under the existing CDG process, the Company calculates Value Stack compensation each billing period based on the project's hourly net injections and recovers this amount from delivery customers via the Value Stack Cost Recovery Surcharge. The Company calculates the portion of the Value Stack compensation amount for each CDG satellite, based on the allocation percentages provided by the CDG host, and provides this credit directly to the CDG satellite's retail bill each billing period. The CDG host separately has direct contracts with the CDG satellites under which the CDG satellites pay the CDG host directly for the right to participate in the project and receive these retail bill credits. Unallocated credits remain on the CDG host's account, where they remain unmonetized.

Under the proposed Net Credit Allocation structure, the Company would calculate the Value Stack compensation each billing period and this amount would be recovered from all delivery customers via the Value Stack Cost Recovery surcharge as is the case today under Tariff (Rule 40.3). The Company would then allocate this Value Stack compensation in three parts: Part 1 would be a credit to CDG satellites' retail bills ("CDG-P Bill Credits"); Part 2 would be the payment to the CDG host ("CDG Host Payment"); and Part 3 would be the Company's fee for providing the Platform 1 service ("CDG-P Transaction Fee").

¹² National Grid Schedule for Electric Service, P.S.C. No. 220 Electricity ("Tariff"), Rule 40.3.

¹³ Tariff Rules 29 and 40.

Part 1: CDG-P Bill Credits

Calculation of the CDG-P Bill Credits will still require the CDG hosts to designate the satellite customers to receive credits by submitting an Allocation Request Form under Tariff Rule 29, and designating a CDG satellite allocation percentage for each customer ("Satellite Allocation Percentage") as is done under Tariff Rules 29 and 40 today. In addition, the CDG host would now also designate a "Platform 1 Value Stack Allocation Percentage" that will represent the percentage of the Value Stack compensation that will be available for distribution to the satellite accounts in the form of CDG-P Bill Credits.¹⁴

The CDG-P Bill Credit for each CDG Satellite Account would be calculated by the Company each billing period as follows:

CDG-P Bill Credit = Value Stack Compensation * Platform 1 Value Stack Allocation

Percentage * Satellite Allocation Percentage

The other requirements applicable to CDG hosts and CDG satellites in Rule 29 of the Tariff would continue to apply, including that the allocation percentage for a CDG satellite must result in at least 1,000 kWh of bill credits annually, but cannot exceed the CDG satellite account's historic average annual kWh or a forecasted average annual kWh if actual data is not available. ¹⁵

Part 2: CDG Host Payment

The CDG Host Payment will be a payment, separate from the retail bill, from the Company to the CDG host that represents the compensation to the CDG host for the CDG satellites' participation and will be calculated by the Company each billing period as follows:

CDG Host Payment = Value Stack Compensation – Total CDG-P Bill Credits – Credits

Retained by CDG Host – CDG-P Transaction Fee

Where:

Total CDG-P Bill Credits = the sum of all the CDG-P Bill Credits to be provided to the CDG

Satellites each bill period

¹⁴ The Platform 1 Value Stack Allocation Percentage must be set at a value between 0% and 100%. Setting the Platform 1 Value Stack Allocation Percentage between 0 and 100 percent assures that Platform 1 service is not used to charge CDG satellites more than they otherwise would have paid for electric service.

¹⁵ It is expected that under Platform 1 service most of the requirements under the UBP-DERS should continue to apply to CDG hosts as CDG hosts will continue to be responsible for registering and reporting as CDG providers and enrolling customers as CDG satellites. Any modifications deemed appropriate to the UBP-DERS under this proposed Platform 1 service will need to be addressed by the Commission.

Credits Retained by CDG Host = Value Stack Compensation * (1 – sum of CDG Satellite's Allocation Percentages)

CDG-P Transaction Fee: described below.

Any un-allocated credits will be banked in the CDG host account and may be reallocated once per year, following the current process for credit reallocation.

Part 3: CDG-P Transaction Fee

The CDG-P Transaction Fee will be equal to the "CDG-P Transaction Rate" (\$/kW) multiplied by the CDG project's AC nameplate capacity in the year. The CDG-P Transaction Rate will be an annual rate, fixed for the term of the CDG project, and will be escalated annually to account for inflation. The CDG-P Transaction Fee is designed to create a PSR that would exceed the Company's costs of providing the Platform 1 service, resulting in a net benefit to delivery customers in the form of an offset to the cost of the Value Stack Program Recovery Surcharge.

Further details about the elements of Platform 1, including pricing for the CDG-P Transaction Fee, are provided in Appendix 1.

1.2.2. Platform 2 – Customer Acquisition and Turnover Management

In addition to the Platform 1 service, the Company proposes to address additional perceived market inefficiencies and pain points in its service territory by offering Customer Acquisition and Customer Turnover Management services to solar CDG hosts through the CDG-P ("Platform 2"). By leveraging National Grid's brand recognition and position as the trusted utility partner, the Company expects it could enroll more customers and manage ongoing customer turnover at a lower cost than the market rate for these services, thereby increasing market efficiency and reducing the soft costs associated with CDG development. Additionally, by creating a standardized solar CDG offering to end-use customers, the Company can simplify the customer enrollment process.

Platform 2 would be available to solar CDG hosts on an opt-in basis for a fee ("CDG-P Acquisition Fee"). The Platform 2 service would leverage the Net Credit Allocation transaction

¹⁶ Under this proposed Platform 2 service, the customer enrollment, marketing and advertising requirements, and certain reporting requirements imposed on CDG hosts by the UBP-DERS would not apply to CDG hosts.

¹⁷ The Company proposes to offer Platform 2 service only to solar and solar + storage Value Stack CDG projects to enable the Company to cost-effectively market CDG subscriptions with simplified and streamlined marketing messages and enrollment processes. Refer to Appendix 2 for more detail regarding CDG project eligibility requirements for the Platform 2 service.

structure and build upon this by also offering customer acquisition and customer turnover management services.

Figure 3 below provides an overview of the proposed program structure.

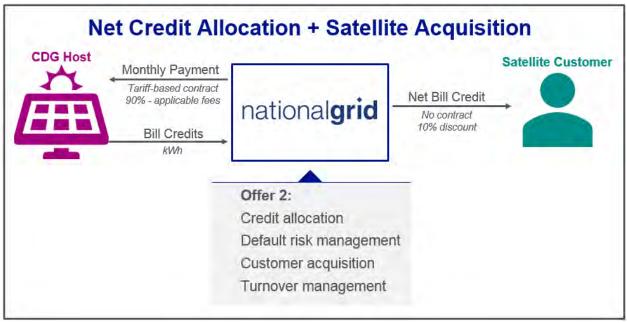


Figure 3: Customer Acquisition Transaction Map

Through the CDG-P, the Company will create a standardized solar CDG offering for CDG satellites ("Platform 2 Satellite Offer"), which will be available to all qualifying customers. On the front end of the CDG-P, the Company will market to customers through various channels and enroll CDG satellites to the Platform 2 Satellite Offer. On the back end the Company will market the Platform 2 service to solar CDG hosts and enroll qualifying CDG projects into the Platform 2 service ("Platform 2 Host Offer"). Once enrolled in the Platform 2 Host Offer, solar CDG projects will receive payment for the CDG host's share of the Value Stack compensation without the need to individually subscribe CDG satellites to the CDG facility. The Company, through the Platform 2 Satellite Offer, will be responsible for signing up CDG satellites to all solar CDG facilities enrolled in Platform 2 and will manage customer turnover on an ongoing basis. The Company would charge a Customer Acquisition Fee to the solar CDG host for this service.

¹⁸ Once CDG satellite Customers are matched with a solar CDG project, information on the CDG project and CDG host will be provided to the satellite customer to drive a sense of connection with the CDG-P Program. Refer to Section 1.2.2.1. for more details regarding customer enrollment in the Platform 2 Satellite Offer and Appendix 6 for the Company's proposed marketing plan.

Details of the Platform 2 proposal are provided below.

1.2.2.1. Platform 2 Satellite Offer

The Platform 2 Satellite Offer would consist of a standardized offer available to all qualifying customers and would have a set of standardized terms and conditions. Features of the Platform 2 Satellite Offer would include:

- 1. **No Contract:** Customers enrolled in the Platform 2 Satellite Offer would not be locked into a fixed-term contract.¹⁹
- 2. **No Cancellation Fee:** Customers enrolled in the Platform 2 Satellite Offer may cancel at any time with no cancellation fee (with cancellations effective the next customer retail billing period following the processing of a cancellation request).
- 3. **Discounted Satellite Bill Credit Value:** In Platform 2, the Company would initially set the aggregate CDG-P Bill Credits associated with an individual solar CDG facility equal to 10 percent of the total Value Stack compensation for injections from that facility. ²⁰ The Company proposes that this value will be re-assessed on an annual basis to ensure alignment with market conditions and policy goals. All CDG-P Bill Credits will be applied to the CDG satellite customer accounts as a credit to that customer's retail bill.

Eligibility Requirements

The Company proposes to market the Platform 2 Satellite Offer initially only to residential and small commercial rate classes (SC-1 or SC-2). After the first year of operating the program, the Company will evaluate customer enrollment metrics and reassess whether it is appropriate to expand marketing efforts to other service classes.

1.2.2.2. Platform 2 Host Offer

The Platform 2 Host Offer is designed to provide maximum value to customers and solar CDG hosts alike by reducing the cost of customer acquisition and providing an elevated level of revenue certainty, resulting in lower project costs. Compensation for Platform 2 projects will be based on the Value Stack compensation for hourly net injections as specified in Rule 40 of the Tariff, net of the CDG-P Bill Credits allocated to CDG satellites and net of the CDG-P Transaction Fee. The Company, through the Platform 2 Satellite Offer, will be responsible for enrolling CDG satellites to each solar CDG facility that is enrolled in the Platform 2 Host Offer and managing customer turnover for those facilities on an ongoing basis. In return for these

¹⁹ Private CDG projects often require satellite customers to sign contracts with term lengths of up to 20 years.

²⁰ The Company proposes to initially set the CDG-P Percentage to 10% to reflect a typical CDP market discount level but will re-evaluate the appropriate CDG-P Percentage to offer as the CDG market evolves.

services, the CDG host would pay a Platform 2 Upfront Fee, and a recurring Platform 2 Maintenance Fee.²¹

Based on the proposal to allocate 10 percent of the total Value Stack compensation for injections from that facility²² to CDG satellites, the CDG host payment would be as follows:

CDG Host Payment = Value Stack Compensation – Total CDG-P Bill Credits – Platform 2

Credits Retained by the Company – CDG-P Transaction Fee²³ –

Platform 2 Maintenance Fee

Where:

Platform 2 Credits Retained by the Company = the bill credits that, in the event the sum of the Satellite Allocation Percentages in the relevant billing period is less than 100%, the Company will calculate based on the remaining percentage.

If the Company is unable to acquire enough CDG satellites to fully allocate the CDG Bill Credits produced by a solar CDG project enrolled in Platform 2, the CDG host will still receive the payments under the terms of the Platform 2 Service.

Any unallocated bill credits will be retained by the Company and may be reallocated to CDG satellites enrolled in the Platform 2 Satellite Offer within the calendar year. At the end of each calendar year, any unallocated bill credits will not be retained by the CDG host under Platform 2 but will instead be returned to delivery customers as an offset to the Value Stack Cost Recovery Surcharge.

1.2.2.3. CDG Host Solicitation and Enrollment Process

Participation in the Platform 2 Host Offer would be made available to solar CDG hosts in capacity block tranches. The Company would conduct competitive solicitations for eligible CDG host capacity in 50 MW tranches by releasing a Request for Proposal ("RFP") for CDG hosts to submit bids for Platform 2 service. CDG hosts selected for participation in a Platform 2 Host Offer tranche will, upon commercial operation of the facility, begin their compensation under Platform 2 for the remaining term of their project per Rule 40 of the Tariff.

Additional details about the Platform 2 Host Offer is provided in Appendix 2.

²¹ Refer to Appendix 2 for details regarding the Platform 2 Upfront- Fee and the Platform 2 Maintenance Fee.

²² Like the Net Credit Allocation Service, the Value Stack Compensation will be calculated in each billing period as it is done today in accordance with Rule 40, Value Stack, and Rule 29, CDG of the Tariff.

²³ The CDG-P Transaction Fee will be the same fee as for the Platform 1 Net Credit Allocation Service.

1.2.2.4. Satellite Customer Enrollment Process

Central to the success of the Customer Acquisition initiative of Platform 2 is a simple and intuitive enrollment process for CDG satellites. The Company will market to customers under the National Grid brand and direct them to a simple online enrollment portal ("Customer Enrollment Portal") where they can sign up for a "Solar Garden" (i.e., an approved solar CDG project). The Customer Enrollment Portal will be accessed via Single Sign-On ("SSO") through each customer's National Grid account and will feature three key elements:

- 1. **Education:** The first step in the customer enrollment process will be focused on education. Customers will be directed to a micro-site with educational materials about what a solar CDG project is, how it works, how the customer could benefit from it, and how to sign up. The micro-site will be designed to access the customer's historical billing data to show a customized estimate of the value that the customer could receive by enrolling for the CDG offer.²⁴ The micro-site will also include a list of Frequently Asked Questions. Interested customers will be able to click an option to join a solar CDG project and be directed to step 2.
- 2. Terms and Conditions: In the second step of the enrollment process, customers would be presented with the set of simple terms and conditions for enrollment in the Platform 2 Satellite Offer. The customer will be able to agree to the terms and conditions through the online enrollment form and select "Sign Me Up!" to proceed to sign up.
- 3. CDG Facility Match: Once the customer elects to sign up, the CDG-P would automatically match the customer to a solar CDG project. The Customer will receive a message indicating they have been matched with a solar CDG project. The customer will receive a description of the facility and estimated time until savings will start appearing on their utility bill.

The assignment will be conducted by the back-end software underlying the CDG-P, "CDG-P Software," and will be based on a transparent algorithm that matches customers to solar CDG projects based on proximity of the facility to the customer's home or business and estimated time until the project will be online and producing bill credits. If there are no available solar CDG projects to match the customer with, the customer will be informed that they have been placed on a wait list and will be matched with a solar CDG project when one becomes available.

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²⁴ Actual savings to the satellite customer will depend on actual production and value of the Satellite Bill Credits from the associated solar CDG project, so the estimate shown in the micro-site will be clearly noted as an approximation.

1.2.2.5. Low Income Customer Capacity Reservation

One of the most important aspects of the CDG-P is the ability to improve LMI customer access to the benefits of solar CDG. The Company expects that the proposed bill credit structure will make solar CDG hosts indifferent as to credit ratings of subscribing CDG satellites; however, this alone does not guarantee LMI customers will benefit from this initiative. Therefore, the Company proposes to institute a capacity reservation for LMI customers ("LMI Capacity Reservation") in the Platform 2 Host Offer.

The Company plans to implement an LMI Capacity Reservation by reserving 20 percent of each tranche of capacity in the Platform 2 Host Offer for Company customers enrolled in the Energy Affordability Program (EAP).²⁵ The Company also plans to focus its marketing efforts on EAP customers and communities identified as having higher levels of LMI customers.²⁶

1.3. Stakeholder Benefits

The Company's proposed CDG-P program would provide significant benefits to all CDG stakeholders, including CDG satellites and CDG hosts, and would advance the State's clean energy objectives. The proposal would expand market access and improve market efficiency, creating a more equitable and cost-effective CDG program.

1.3.1. Customer Benefits

Customers will benefit from this initiative in three key ways:

1.3.1.1 Expanded Market Access for LMI Customers:

The LMI customer segment has historically had very limited access to CDG. This phenomenon has been driven mainly by perceived credit risk issues associated with customer default on CDG subscription payments. The Company's proposed Net Credit Allocation Service will eliminate this market barrier by reconfiguring the CDG transaction structure to provide bill credits to participating customers and direct payments from the utility to CDG hosts equal in value to a percentage of the value generated through the Tariff's Value Stack compensation mechanism. Under this transaction structure, CDG hosts would be indifferent to the credit scores of individual subscribing CDG satellites, effectively expanding access to CDG to all eligible customers in the Company's service territory. In addition, the proposed LMI Capacity Reservation and focused marketing plan for Platform 2 will ensure that LMI customers can be major beneficiaries of the CDG-P.

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²⁵ There are currently approximately 135,000 customers enrolled in EAP, which is approximately 9 percent of the Company's 1.5 million residential electric customers.

²⁶ Refer to Appendix 6 for a detailed marketing plan.

1.3.1.2 Cost Reduction for Distribution Customers:

Implementation of the proposed CDG-P also would create a direct benefit to all delivery customers in the form of a PSR that would offset the out-of-market costs of the Tariff's Value Stack compensation mechanism. An example of how that estimated benefit could be calculated is provided in Appendix 3.

1.3.1.3 Improved Customer Experience:

The Platform 2 Satellite Offer is designed to improve the current CDG model by creating a simpler and more streamlined customer experience. The standardized Platform 2 Satellite Offer and enrollment process are intended to create a simple offer for customers that is low commitment, easy to understand, and to make the enrollment process as quick and painless as possible, thereby increasing customer demand and reducing the overall cost of customer acquisition.

1.3.2. CDG Host Benefits

CDG hosts will realize the following benefits from the CDG-P:

1.3.2.1 Market Expansion:

CDG hosts will benefit from an expansion of the CDG Market and eligible CDG satellites. As outlined above, the current structure of the CDG program forces CDG hosts to impose qualification criteria that typically require subscribing CDG satellites with a FICO® score of 700 or above. Considering that nearly 50% of consumers in the US have FICO® scores lower than 700,²⁷ eliminating the need for minimum credit requirements for CDG subscriptions could significantly expand the addressable market for CDG satellites.

1.3.2.2 Reduced Customer Acquisition Costs

The Platform 2 Host Offer will result in significant value for solar CDG hosts by reducing customer acquisition costs. Although actual platform CDG host benefits created through the CDG-P will depend upon market uptake of the CDG-P as well as actual bid prices resulting from the Platform 2 Host Offer solicitations, the Company believes actual efficiency savings could be significant, thereby promoting more solar CDG development and increased customer participation.

1.3.2.3 Reduced Financing Costs

In addition to the reduced customer acquisition costs, the Company expects that CDG hosts will realize benefits in the form of reduced financing costs. CDG hosts that opt to participate in the CDG-P will not only avoid the need for minimum credit score requirements but will now receive direct payments backed by a utility tariff. Solar CDG hosts that opt to use the Platform 2 Host

²⁷ US Average FICO Score Hits 700: A Milestone for Consumers, https://www.fico.com/blogs/us-average-fico-score-hits-700-milestone-consumers/ (last accessed August 27, 2019).

Offer will be guaranteed to monetize all CDG Bill Credits, further de-risking the solar project. While data is not available regarding the quantifiable impact that these services will have on project financing costs, discussions with representatives from the New York Green Bank indicate that the Net Credit service and Acquisition Platform will each have the effect of reducing project financing costs.

Feedback from the New York Green Bank indicates that there are four primary factors that project finance and tax equity partners consider when assessing the risk of a CDG investment: price risk, initial customer acquisition risk, customer turnover risk, and collections risk. Price risk is the risk attributed to the variability of the merchant components (locational-based marginal price and installed capacity) of the Value Stack compensation, while the customer acquisition, customer turnover, and collections risks reflect the perceived risk associated with the need to manage CDG subscriptions and collect payments to monetize all Value Stack credits produced by the CDG Facility. While a limited number of financial institutions are becoming more familiar and comfortable with the price risk, the other components remain significant risk factors for CDG project finance. By eliminating the need to collect payment from CDG satellites, as well as need for CDG hosts to manage customer acquisition and customer turnover, the proposed CDG-P Program would catalyze more investment in CDG and result in lower financing costs.

1.4. Revenue Requirement Cost Recovery

The Company's revenue requirement associated with the Platform 1 and Platform 2 offerings includes all capital expenditures and operating expenses related to marketing, internal labor, as well as IT and billing system implementation. Details of the Company's revenue requirement associated with Platform 1 and Platform 2 can be found in Appendix 3. The Company will defer this revenue requirement for recovery in the Company's next rate case. Any ongoing costs incurred in later years will be recovered as part of the rate allowance in the Company's next rate case. In developing the revenue requirement, a pre-tax weighted average cost of capital ("WACC") of 7.99 percent, which equates to a post-tax WACC of 6.45 percent. The WACC assumptions are based on the Commission-approved WACC for fiscal year 2021, the last year of the Company's current rate plan approved in Case 17-E-0238.

1.5. Sharing of Platform Service Revenue

Consistent with the Commission's May 19, 2016 Order in Case 14-M-0101,²⁸ the Company proposes to implement a PSR sharing mechanism for both its Platform 1 and Platform 2 offerings. The mechanism would apply to the fees collected by the Company from CDG hosts participating in the Company's Platform 1 and Platform 2 services. The Company proposes to retain 20 percent of the fees from CDG Hosts, with the remaining 80 percent of the fees deferred for the benefit of customers.

2. Implementation Plan

2.1. Statement of Work and Implementation Timeline

The Company will launch the CDG-P program in two phases: the first phase will launch Platform 1 and the second phase will launch Platform 2. Following Commission approval of the CDG-P Program, the Company plans to target a launch of Platform 1 after six months and a launch of Platform 2 after ten months.²⁹

Implementation of Platform 1 will consist of the development of IT and billing infrastructure required to deliver the Net Credit Allocation model. The Company will implement a manual billing process and develop a Host Enrollment Portal³⁰ immediately following Commission approval and expects that these two workstreams will take approximately six months to complete. The Company will simultaneously work to automate the Net Credit Allocation billing process, though the full automation of the billing solution is linked to the existing plan to automate the Value Stack bill credit allocation and is expected to take until approximately August 2021.

Implementation of Platform 2 will consist three concurrent work streams to be carried out over approximately ten months. Workstream 1 will consist of the procurement, development, and implementation of the IT systems required to implement the Platform 2 services. Workstream 2 will focus on the enrollment of CDG hosts in the Platform 2 Host Offer, while Workstream 3 will

²⁸Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision* ("REV Proceeding"), Order Adopting a Ratemaking and Utility Revenue Model Policy Framework (issued May 19, 2016) ("REV Track Two Order"), pp. 47-53.

²⁹ While the Company plans to target a launch of Platform 2 approximately ten months after Commission approval, the actual implementation timeline will be dependent upon the procurement and integration of a third party software platform and could take longer.

³⁰ Refer to Appendix 5 for more detail regarding the Host Enrollment portal.

focus on implementation of the proposed marketing plan and enrollment of CDG satellites in the Platform 2 Satellite Offer. ³¹

Refer to Figure 4 below for a detailed implementation timeline of the CDG-P program.

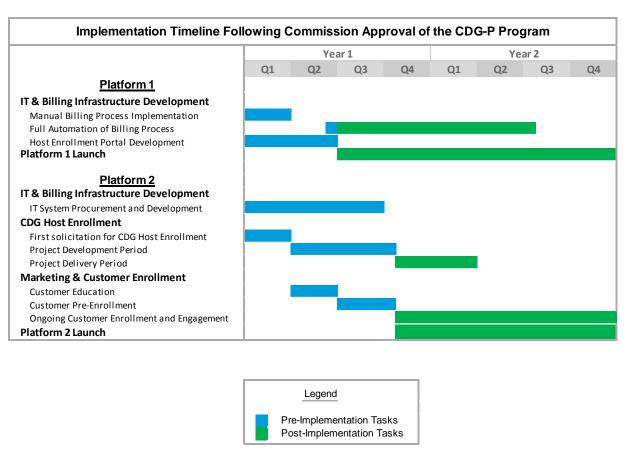


Figure 4: CDG-P Implementation Timeline Following Commission Approval

The Company estimates that a significant amount of CDG projects currently in the Company's interconnection queue will be interconnected in 2020. As a result, there is a small window in which many of these facilities could enroll in the Platform 2 service, since such facilities must enroll in the Platform 2 service prior to achieving commercial operation. If the Commission approves the Company's CDG-P Program proposal by January 1, 2020, the Company would target a launch of the Platform 2 service by October 1, 2020 to give CDG facilities the opportunity to enroll in the Platform 2 service.

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³¹ As with Platform 1, Platform 2 will be launched prior to the completion of the fully automated billing solution and will leverage the manual billing process for the Net Credit Allocation until the fully automated solution is available.

2.3. Measures of Success

The Company proposes to measure success of the CDG-P based on:

- 1. Total number of customers enrolled through Platform 1 and Platform 2 Offers.
- 2. Total number of EAP customers enrolled in the CDG-P, whether in Platform 1, or the Company's standardized Platform 2 Satellite Offer.
- 3. Total PSR resulting from the CDG-P and amount to be deferred for/returned to customers.

The Company will track performance against each metric and submit results achieved as part of its annual program report to the Commission. The Company proposes to track EAP customer participation rather than broader LMI enrollment due to challenges identifying moderate-income customers and low-income customers not enrolled in EAP. The Company will re-assess this metric as the program progresses and may expand tracking to include LMI customer enrollment should the Company identify better ways to track moderate-income and low-income customers.

2.4 IT System Development and Implementation

The Company must implement certain system enhancements to deliver on the proposed CDG-P. These include: (1) a Developer Enrollment Portal; (2) a Customer Enrollment Portal; (3) an algorithm to match customers and solar CDG hosts ("CDG-P Software"); and (4) upgrades to the billing system. The system enhancements needed to deliver the proposed CDG-P are estimated to cost approximately \$4.321 million and take approximately ten months to implement following approval.³² Additional description of the system enhancements is provided in Appendix 5.

2.5 CDG Host Engagement and Onboarding

2.5.1 CDG Host Engagement

National Grid will perform activities to inform CDG hosts of the Platform 1 and Platform 2 services. These activities include:

1. Create a landing page for CDG hosts through the Developer Enrollment Portal that will explain the program, how it works, and how to enroll,

³² While the full automation of the billing process will take longer than ten months, the CDG-P program will be implemented using a manual billing process until the fully automated solution is available.

- 2. Run periodic webinars explaining the program and answering questions for CDG developers,
- 3. Disseminate information through industry groups such as the NY Solar Energy Industry Association ("NYSEIA").

2.5.2 Platform 1 Service Enrollment

CDG hosts will follow these steps to enroll a new project into the Platform 1 service:

- 1. When the CDG host is applying for an interconnection agreement for a new CDG project, they will have the option to select to enroll its project in the Platform 1 service.
- 2. When the CDG host is submitting the customer subscription and allocation information to the Company's Customer Energy Integration team, the CDG host will also include the CDG-P Percentage for each satellite customer, or the percentage of the Value Stack Compensation that is given to the satellite customer.

No additional qualifications are required beyond what is needed to apply for interconnection.

2.5.3 Platform 2 Service Enrollment

2.5.3.1 Enrollment Process

The Company will conduct RFPs for solar CDG host enrollment in Platform 2. Additional detail regarding the RFPs for solar CDG host enrollment is available in Appendix 2.

2.5.3.2 Plan and Timeline for CDG Host Enrollment

The Company expects to run the first RFP for CDG host enrollment shortly after receiving Commission approval for the CDG-P. Consistent with the CDG host eligibility requirements outlined in Appendix 2, the following requirements will be imposed on projects entering this first solicitation:

- The solar CDG host has executed a Standardized Interconnection Contract with the Company in accordance with the requirements set out in the New York Standardized Interconnection Requirements and Application Process for New Distributed Generators and Energy Storage Systems 5 MW or Less Connected in Parallel with Utility Distribution Systems ("SIR").
- The solar CDG host has submitted the required advance payment of 25% of the Company's estimated interconnection costs in accordance with the SIR.

• The CDG project's estimated commencement of parallel operation with the Company's system (*i.e.*, commercial operation date ("COD")) falls within 12 months of when the RFP is issued.³³

Solicitations will be run periodically to ensure a consistent pipeline of solar CDG projects in the program. The Company is not yet ready to determine the details of future RFPs until it has completed the first RFP and can determine how much interest there is in this program from the solar CDG host community.

2.6 Customer Engagement and Onboarding

The Company has prepared a Marketing and Customer Engagement Plan ("the Plan"). The objective of the Plan is to raise awareness and enable ease of participation for customers in the Platform 2 Community Solar offering. The Plan prioritizes outreach to LMI customers to ensure equity in solar availability.

The Plan leverages the Company's learnings from rooftop solar marketing as well as incomeeligible outreach efforts, and internal customer research, external third-party research, customer engagement plans from peer utilities, and industry reports. Internal customer research illustrates that customers of National Grid and National Grid's affiliates in other jurisdictions lack familiarity and experience with solar CDG to date, yet are interested in participation:

- 60% of National Grid's customers have not heard of solar CDG
- 39% of National Grid's customers indicate they are extremely or very interested in signing up based on the proposed CDG-P program

National Grid has developed a robust Plan to inform and educate National Grid customers on the benefits of solar CDG to drive enrollment. The three-phased approach includes:

- 1. Education to drive awareness and interest,
- 2. Enrollment to facilitate easy sign-ups, and
- 3. A Customer Engagement Plan to ensure active participation and referrals of the program to family, friends, and neighbors.

³³ The Company understands that some CDG hosts may need to have identified their customer acquisition plan more than 12 months before the COD. However, the Company is also looking to launch the CDG-P program within a reasonable time. Therefore, the Company expects that future solicitations will loosen this restriction, but cannot determine this until the first solicitation is complete.

Large-scale consumer education is necessary through awareness campaigns like radio and billboards, as customers currently lack familiarity and experience with solar CDG. Partnerships with trusted community-based organizations will be essential to building a local connection with customers, especially in LMI communities.

Please see Appendix 6 for a copy of the Customer Engagement Plan.

2.7 Reporting

The Company proposes to provide the following annual reports:

- 1. Annual CDG-P report to the Commission
- 2. Annual report to each CDG satellite customer enrolled in the Platform 2 Satellite Offer

Given that the Company will assume ownership of the customer relationship for solar CDG projects that opt to enroll in the Platform 2 Host Offer, the Company proposes to also assume ownership of the associated CDG reporting requirements of the UBP-DERS").³⁴ The transfer of this reporting requirement to the Company is appropriate for solar CDG projects enrolled in the Platform 2 Host Offer, as the solar CDG hosts will not have any information regarding specific customer enrollments, other than the amount of Satellite CDG Bill Credits that are deducted from the Value Stack Compensation, as outlined in Section 1.2.2.2.³⁵ The Company will not assume any reporting requirements on behalf of CDG projects that elect to enroll in Platform 1, as the CDG hosts will maintain ownership of the customer relationship for such facilities and will have all requisite information necessary to comply with the UBP-DERS.

2.7.1 Annual Program Report

The Company's annual program report to the Commission will include the following information:

- 1. Total number and nameplate capacity of CDG projects enrolled in Platform 1
- 2. Total number and nameplate capacity of solar CDG projects enrolled in Platform 2
- 3. Total number of CDG satellites enrolled in the Platform 2 Satellite Offer
- 4. Estimated number of LMI customers enrolled in the Platform 2 Satellite Offer³⁶
- 5. The services provided to CDG satellites enrolled in the Platform 2 Satellite Offer

³⁴ See UBP-DERS March 2019 Order, App. A, Sect. 3F.

³⁵ The assumption of certain UBP-DERS requirements imposed on CDG hosts by National Grid may require an amendment to the UBP-DERS or otherwise need to be explicitly addressed by the Commission.

³⁶ As noted above, the Company will report the total number of low-income customers that are enrolled in the Platform 2 Satellite Offer, as confirmed through their enrollment in EAP. Given the challenges in identifying LMI customers that are not enrolled in EAP, the Company will provide an estimate of the number of LMI customers enrolled in the Platform 2 Satellite Offer.

- 6. Total costs resulting from the implementation and ongoing management of the CDG-P
- 7. Total PSR resulting from the implementation of the CDG-P, including portion deferred for/returned to customers
- 8. The number and classification of complaints from CDG satellites regarding the CDG-P

2.7.2 Annual Satellite Customer Reports

In addition to filing an annual program report with the Commission, the Company will provide an annual summary report to each CDG satellite customer that is enrolled in the Platform 2 Satellite offer. This report will include the following information:

- Total net bill credits allocated to the satellite customer, expressed in both kWh and dollars; and
- 2. Total amount the satellite customer has paid in subscription fees and any other payments as a result of enrolling in the Platform 2 offer.³⁷

³⁷ This will always be \$0, as CDG satellites enrolling in the CDG-P will not face incremental subscription charges, however, the Company will include this in the report in order to comply with the reporting requirements outlined in the UBP-DERS.

Appendix 1: Platform 1 Details

The Platform 1 Net Credit Allocation framework relies on four key elements: (1) net bill credit allocation to CDG satellites; (2) maximum credit allocation; (3) Platform 1 Transaction Fee; and (4) payments to CDG hosts. The importance of each of these four elements is detailed below:

A1.1. Net Bill Credit Concept

The Commission's VDER Phase One Order required each utility to evaluate the practicality, cost, and timeline for implementing consolidated billing for CDG projects.³⁸ On November 13, 2017, the Joint Utilities filed comments ("the Joint Utilities Comments") representing their assessment of issues related to consolidated billing considered common across all the utilities.³⁹ The Joint Utilities Comments identify a number of threshold policy and legal issues that must be resolved before consolidated billing for CDG could be undertaken. These include: (1) payment allocations and collections (e.g., allocation of partial payments, etc.); (2) communications between utilities and CDG hosts (i.e., data exchange); and (3) implications on existing utility billing systems.⁴⁰

Like traditional consolidated billing, Platform 1 would eliminate the need for CDG satellites to receive two separate bills, as well as the cost to CDG hosts of operating a separate billing and collections process. However, as noted in Section 1.2.1, the application of the Net Credit Allocation net bill credit transaction structure does not raise many of the challenges identified in the Joint Utilities Comments that would arise in a consolidated billing arrangement. Applying a net bill credit to the CDG satellite's bill eliminates the need to collect any additional charges from the CDG satellite. The bill credit that is applied to the CDG satellite's bill will be limited to a net reduction (or a net neutral impact if the Platform 1 Value Stack Allocation Percentage is set to 0%)⁴¹ in the customer's bill. As a result, all charges on the Customer's bill would follow

³⁸ 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 on Phase One Value of Distributed Energy Resources Implementation Proposals, Cost Mitigation Issues, and Related Matters (issued and effective Sept. 14, 2017) ("Phase One Order") p.55.

³⁹ "Joint Utilities' response to New York State Public Service Commission Order Requiring Utilities to File an Automation and Billing Report and an Evaluation of the Practicality, Cost, and Timeline for Implementing Consolidated Billing Within Twelve Months." Case 15-E-0082.

⁴⁰ *Id.* at 4-5. Note that the Phase One Order states that "consolidated billing for CDG shall not result in utility shutoffs based on a customer's failure to pay the CDG portion of the bill nor shall it include use of utility collection mechanisms where the CDG portion of the bill is unpaid." Phase One Order at p. 51

⁴¹ The Company considered whether it is appropriate to set the minimum threshold for the Platform 1 Value Stack Allocation Percentage at a level greater than zero in order to ensure that CDG satellites receive a financial benefit from their CDG subscription. While the Company finds it important to require that the Platform 1 Value Stack

the Company's standard credit and collections process. Since there is no "receivable" to be collected from the CDG satellite, the "purchase of receivables" model would not apply.

The net bill credit concept is equally important in the context of the default risk management component of the Platform 1 Service. Under the current CDG Program structure, when a CDG host allocates retail bill credits to a CDG satellite account, the collection risk associated with that credit amount is transferred from the Company to the CDG host. As a result, CDG hosts might transact only with credit-worthy customers. Under the Net Credit Allocation transaction structure, on the other hand, the credit and collections obligation for the CDG satellite charges remains with the Company. Having the Company maintain the credit and collections obligation for the retail bill charges would not impose additional collection risk or bad debt expense on the Company so long as the effect of the CDG subscription on the CDG satellite customer's bill is either net neutral or a reduction, which would be the case under the Company's proposal. Structuring the proposal to assure each CDG satellite receives a net benefit through the CDG subscription also is important for LMI customers, who would now have access to CDG subscriptions.

A1.2. Platform 1 Transaction Fee

As described in Part 3 of the Net Credit Allocation transaction structure in Section 1.2.1.1., the Company proposes to charge CDG hosts for the Platform 1 service as a value-added service. Under the current CDG program, Hosts conduct their own billing operations and bear the cost of those operations. Assessing CDG hosts a fee for Platform 1 service will assure the Company and distribution customers are compensated for the infrastructure investments and ongoing operating costs required to implement Platform 1.

In addition, under the proposed Platform 1 transaction structure, CDG hosts will no longer have credit and collection risk associated with CDG satellite default. Through the Net Credit Allocation, the CDG host will receive payments directly from National Grid and will not be impacted if a CDG satellite enters arears or defaults on its utility bill, whereas under the current program structure or a consolidated billing framework, the potential for CDG satellite default is borne by the CDG hosts. The elimination of the bad debt expense is expected to directly and positively impact the cash flow of CDG hosts and reduce project financing costs, which also should be reflected in the CDG-P Transaction Fee. The platform service revenue created through the collection of the CDG-P Billing Fee will be shared with delivery customers, resulting in an overall reduction in the cost of the VDER Value Stack Tariff.

Allocation Percentage is greater than or equal to 0%, the Company proposes to allow the market dictate the minimum allocation percentages required to enroll CDG satellites based on customer preferences and competition among CDG hosts.

The Platform 1 Transaction Fee will be set based on an assessment of the costs required to implement the Platform 1 service, as well as the market price for CDG billing services. The Company proposes to set the CDG-P Transaction Fee at a rate that is comparable to the market rate for CDG billing services and will assess the costs required to implement Platform 1 to ensure that the proposed CDG-P Transaction Fee will be high enough to cover the Company's costs and provide net benefits to delivery customers. At a minimum, the Platform 1 Transaction fee must be higher than the Platform 1 implementation costs that will be recovered from customers. At a minimum, the Community Credit and Market Transition Credit were set based on estimates of market costs, which presume that CDG hosts bear the billing and bad debt expenses, it is appropriate to set the Platform 1 Transaction Fee at a rate the captures the full added value of the Platform 1 service to CDG hosts to maximize the PSR and resulting value to delivery customers.

As described in Section 1.2.1.1. the CDG-P Transaction rate will be an annual rate that is fixed for the term of the CDG project. The market rate for CDG Billing fees is estimated to be between \$0.01/W per year and \$0.03/W per year. The Company proposes to initially set the price for the CDG-P Transaction Fee at \$0.02/W per year to capture the maximum value for delivery customers, while providing a competitively priced service. The Company proposes that the CDG-P Transaction Rate will be escalated annually by a "CDG-P Escalation Factor" based on the short-term annual inflation rate reported by the Bureau of Labor Statistics.

A1.3. Direct Payments to CDG Hosts

The concept of direct payments to CDG hosts is the main driver for improving LMI customer access to CDG. As noted above, the primary factor limiting the ability of LMI customers to access CDG is the credit risk associated with contracting with the CDG satellite. By providing payments directly from National Grid to CDG hosts, backed by a Commission-approved tariff and the credit-worthiness of National Grid, the CDG Hosts will have revenue certainty without risk of customer default. As a result, CDG hosts should be indifferent as to credit-worthiness of

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⁴² The Company has calculated the revenue requirement associated with the embedded costs, estimated incremental investments, as well as estimated ongoing O&M costs associated with implementing and maintaining the IT and billing systems necessary to implement Platform 1 and included these costs in the illustrative PSR calculations outlined in Appendix 3.

⁴³ The Company will review the rate of the Platform 1 Transaction Fee after the first year of program implementation and assess whether a different rate is justified. While CDG hosts are expected to realize benefits in the form of reduced financing costs as well as avoided CDG billing fees, it is difficult to estimate the specific value of the financing benefits. As such, the proposed price for the Platform 1 service is based on the market rate for CDG Billing fees, with the expectation that CDG hosts that elect to use the Platform 1 service will realize benefits that exceed this cost.

the CDG satellite. This will eliminate the need to conduct credit screening and impose minimum credit score requirements and will create access to CDG for all customers.

A1.3. Platform 1 Credit Allocation Example

The following example illustrates the allocation the Value Stack Compensation under the Net Credit Allocation model in Platform 1. In this example, the CDG host allocates CDG-P Bill Credits to five CDG satellites and retains a portion of the Value Stack Compensation because of there being unallocated credits.

а	CDG Project Capacity	50 kW
b	Value Stack Compensation	\$500
c = sum S1 to S5 allocation		
percentage	Percent Allocated to Satellites	90%
	Platform 1 Value Stack Allocation	
d	Percentage	10%
e = b * c	Allocated Value Stack Compensation	\$450
f = b - e	Credits Retained by CDG Host	\$50
g = e * d	Total CDG-P Bill Credits	\$45
		**
h		\$1.67
i = a * h	CDG-P Transaction Fee	\$83
j = b - f - g - i	CDG Host Payment	\$322
k = d	Banked Bill Credits	\$50

Figure 5: Calculation of CDG-P Transaction Fee, CDG Host Payment, and Credits Retained by CDG Host

	Satellite Allocation	CDG-P Bill	
	Percentage	Credits	
S1	10%	\$5	= b * d * % S1
S2	20%	\$10	= b * d * % S2
S 3	20%	\$10	= b * d * % S3
S4	20%	\$10	= b * d * % S4
S 5	20%	\$10	= b * d * % S5
Unallocated	10%	_	= b * d * % Unallocated
Total	90%	\$45	

Figure 6: Allocation of CDG-P Credits to CDG Satellites

Appendix 2: Platform 2 Host Offer Details

Appendix 2 provides details regarding the following components of the Platform 2 Host Offer:

- 1. Competitive solicitation and pricing
- 2. CDG project eligibility requirements
- 3. Capacity allocations and payment collections
- 4. Ongoing assessment

A2.1. Request for Proposal and Pricing

RFPs for the Platform 2 Host Offer will require CDG projects to submit bids for the Platform 2 service, as well as documentation to demonstrate eligibility for the Platform 2 Host Offer. CDG hosts will be required to provide the following information in response to the RFPs for Platform 2 service:

- 1. Proposed CDG project generation AC nameplate capacity ("Nameplate Capacity")
- 2. Proposed \$/W price that they propose to pay the Company for Platform 2 participation
- 3. Proposed Commercial Operation Date ("COD")

A2.1.1. Platform 2 Fee Structure

This combined capacity and bid price, if accepted by the Company, will be the basis for the CDG project's upfront fee for participation in Platform 2 ("Platform 2 Upfront Fee"), and the recurring fee to be paid by the CDG project for the Company's ongoing customer turnover management ("Platform 2 Maintenance Fee"). The Platform 2 Upfront Fee and Platform 2 Turnover Fee will be set in a Pay-as-Bid format, in which each qualifying CDG Facility will be assessed its respective bid price.

For the Platform 2 Upfront Fee, CDG satellites would be acquired to fill 100% of the CDG project's capacity. As such, the Platform 2 Upfront Fee will be calculated as follows:

Platform 2 Upfront Fee = Nameplate Capacity * Bid Price

Once a CDG project is fully subscribed, the customer turnover management service will consist of backfilling CDG satellites that withdraw from the CDG-P or otherwise have their subscription

terminated.44 The Company has conducted an initial assessment of customer turnover rates. Current market estimates of customer turnover within CDG subscriptions are estimated to be approximately 2%-3% per year, while the average attrition rate for residential customers within National Grid's territory is approximately 12% per year. The Company's customer attrition rates are based on the number of customers that disconnect their account in a given year, as a percentage of the total number of customer accounts within National Grid's territory within that year. On the other hand, many CDG hosts require CDG satellites to sign long term contracts with terms as long as 20 years. As a result, many customers with shorter expected time horizons at a location (e.g., renters) may have avoided subscribing to CDG facilities, resulting in very low customer turnover rates.

The Company proposes to use a value between these two data points and initially apply a "Customer Turnover Rate" of 7.5% in the calculation of the Annual Platform 2 Maintenance Fee for the initial RFP and will re-assess the customer turnover rate as the program progresses and more data become available. Accordingly, the Platform 2 Maintenance Fee will be applied as an annual fee, and will be calculated as follows:

Annual Platform 2 Maintenance Fee = (CDG Facility Capacity) * (Bid Price) * (Inflation Escalator⁴⁵) * (7.5%)

A2.1.1.1. Request for Industry Feedback

The Company proposes to fix the Customer Turnover Rate for the duration of the 25 year term of the CDG project using the applicable Customer Turnover Rate at the time the CDG project is enrolled in Platform 2 to provide certainty to CDG hosts with respect to program costs. However, the Company recognizes that as more data becomes available regarding solar CDG Customer Turnover Rates, the Company will be able to more accurately forecast actual Customer Turnover Rates. Therefore, the Company is considering whether an alternative structure whereby the Customer Turnover Rate applied in the Platform 2 Maintenance Fee calculations is initially fixed at 7.5% for several years, but which may be subject to adjustment based on actual customer turnover data may be appropriate.

The Company intends to solicit feedback from industry stakeholders regarding whether it is more beneficial to fix the Customer Turnover Rate for the full 25-year term of the CDG project to provide certainty with respect to Platform 2 Maintenance Fees, or if it would be better to

⁴⁴ CDG satellites may voluntarily withdraw from the CDG-P at any time. Additionally, the Company may terminate the enrollment status of a CDG satellite that violates the eligibility criteria of the Platform 2 Satellite Offer.

⁴⁵ The Annual CDG-P Turnover Fee will include the application of an annual inflation escalator that is based on the short-term annual inflation rate reported by the Bureau of Labor Statistics.

provide flexibility to adjust the Customer Turnover Rate based on the CDG-P program's actual Customer Turnover Rate.

A2.1.2. Pay-as-Bid Pricing

The competitive solicitation and Pay-as-Bid pricing format are particularly useful in this application due to the difficult nature of valuing the CDG host benefits. While it is straightforward to determine the market rate for CDG customer acquisition through third party platforms, the Platform 2 Host Offer is expected to provide significant value in reducing project risk, and thus reducing overall financing costs. The Company attempted to assess the value of the risk reduction and avoided project financing costs through discussions with numerous industry stakeholders. However, while there was general agreement that the proposed Platform 2 Host Offer would provide benefits beyond the avoided cost of customer acquisition and turnover management, stakeholder feedback indicated that the benefits would differ based on specific financing contracts and are thus difficult to quantify. As a result, it would be difficult and inefficient to dictate a market price for the Platform 2 Host Offer, where the Company may end up over-valuing or under-valuing the benefits accruing to individual CDG hosts. Rather, the proposed competitive solicitation and Pay-as-Bid pricing structure will allow each CDG host to define the value that the Platform 2 Host Offer would provide and bid accordingly, thus appropriately pricing the Platform 2 Host Offer for CDG hosts and maximizing the PSR that is collected on behalf of delivery customers.

To ensure that Platform 2 creates net benefits for delivery customers, the Company proposes to institute a floor price in the competitive solicitations. The floor price is estimated to be approximately \$0.059/W and is based on the Company's projected upfront and ongoing administrative costs necessary to implement Platform 2, relative to the projected PSR at an assumed scale.⁴⁶ The Company will update the floor price prior to each auction based on actual implementation costs. Any CDG host bids that are priced below the floor price will not be accepted, even if it means that the 50 MW tranche is not completely subscribed.

A2.2. CDG Project Eligibility Requirements

Eligibility for the Platform 2 Host Offer will be limited to CDG Facilities that meet the following criteria:

- The proposed CDG project uses either solar or solar + storage technology.
- 2. The solar CDG host has executed a Standardized Interconnection Contract with the Company in accordance with the SIR.

⁴⁶ Refer to Appendix 3 for the projected implementation costs and PSR for Platform 2.

- 3. The solar CDG host has submitted the required advance payment of 25% of the Company's estimated interconnection costs in accordance with the SIR.
- 4. The proposed facility has received a statement of qualification for the Community Credit within the Value Stack Tariff.
- 5. The proposed CDG project is not yet commercially operational.
- 6. The proposed COD falls within the specified Eligibility Period.

While some technology types other than solar or solar + storage may be eligible for the Community Credit, the Platform 2 Host Offer will rely on the ability of the Company to cost-effectively market CDG subscriptions and enroll CDG satellites through the Platform 2 Satellite Offer. To simplify and streamline the marketing messages and enrollment process, the Company proposes to market "Community Solar" subscriptions, given that this is the predominant technology type available in the CDG Market and will have the highest level of customer awareness, easing marketing efforts. If the Company were to market generic "Community DG" under a multitude of technology types, it would significantly complicate the education efforts necessary to provide customers with a base understanding of how the Platform 2 Satellite Offer works. The Company expects that the marketing messages for solar-only CDG Facilities and solar + storage CDG facilities could be the same, and therefore proposes to allow CDG Facilities in each category.⁴⁷

To be eligible for the Platform 2 Host Offer solicitations, CDG hosts must demonstrate that the proposed CDG facility has submitted the 25% deposit for interconnection service to the Company and have received a statement of qualification for the Community Credit within the Value Stack Tariff. At the time of the 25% deposit, CDG Facilities will have finalized initial facility designs, secured physical site control of the property upon which the CDG Facility will be cited, and executed a Standardized Interconnection Contract demonstrating a reasonable expectation that the Facility will move forward to construction and interconnection.

Prior to each RFP, the Company will designate an Eligibility Period as an additional qualification criterion for participation in the solicitation. Only CDG Facilities with a proposed COD that falls within the Eligibility Period will be eligible to take part in the RFP for that capacity block. The Eligibility Period criterion is designed to ensure that CDG Facilities that are awarded a capacity allocation in Platform 2 will be completed and available within a timely manner. The Eligibility Period will be specific to each RFP and will be at the discretion of the Company, enabling the Company to align the pipeline of CDG Facility enrollment in the Platform 2 Host Offer with its efforts to enroll CDG satellites. Since the Company will be conducting customer acquisition through the standardized Platform 2 Satellite Offer, which includes a standardized set of terms

⁴⁷ With the incentive for Energy Storage offered by NYSERDA, the Company expects a significant proportion of CDG Facilities coming online in the future to be comprised of solar + storage technologies.

and conditions and financial offer to CDG satellites, allowing CDG facilities that are already operational to participate in Platform 2 would create complications, including a need to terminate pre-existing subscription agreements and execution of new agreements under the Platform 2 Satellite Offer.

A2.3. Capacity Allocations and Payment Collections

Capacity allocations for the Platform 2 Host Offer will be awarded in the form of an initial "Statement of Qualification" to CDG Facilities that submit the highest bid prices. The Statement of Qualification for each CDG Facility will specify the amount of capacity the CDG host has been allocated within the CDG-P and the applicable Acquisition Price for the CDG Facility. Qualifying bids within each RFP will be assessed based on price, with the highest bids winning a capacity allocation. If two CDG Facilities bid the same price, the bids will be compared based on timing, in which facilities with an earlier COD will be prioritized. Once a CDG project becomes commercially operational, it is no longer eligible for the Platform 2 Host Offer. The prioritization of CDG Facilities with earlier CODs will maximize the eligibility period for CDG Facilities that wish to participate in the Platform 2 Host Offer and ensure that capacity is procured through the Platform 2 Host Offer in a timely manner.

Once a CDG facility receives a Statement of Qualification for the Platform 2 Host Offer, the Platform 2 Host Offer payment schedule will be set based on the proposed COD, with non-refundable payment of the Platform 2 Upfront Fee due to the Company 90 calendar days⁴⁸ prior to the proposed COD, or within 15 business days of the CDG Facility receiving final Authorization to Interconnect, whichever comes first. If the Company does not receive the Platform 2 Upfront Fee in full by the applicable due date, the CDG host's Statement of Qualification will be terminated and the capacity allocation will be made available for reallocation to another CDG host. Upon payment of the initial CDG-P Acquisition Fee, the CDG Facility will receive its Final Statement of Qualification, which will serve as the official notice that the CDG Facility is enrolled in the Platform 2 Host Offer will begin receiving cash payments under the Platform 2 Host Offer once it receives final Authorization to Interconnect and achieves commercial operation.

The inclusion of the COD requirement as a qualification criterion for the competitive solicitation, and in determining the Platform 2 Host Offer payment schedule, is intended to hold the CDG hosts that participate in the RFPs to the proposed timelines. This will ensure that the Company is able to appropriately prioritize bids and forecast when each CDG Facility in the

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⁴⁸ The 90 day requirement is intended to align the timing of the payment of the initial CDG-P Acquisition Fee with the timing of the marketing and Customer Acquisition activities that will be required to acquire subscribing CDG satellites for the proposed project.

Platform 2 Host Offer will achieve commercial operation, enabling the Company to time its marketing activities accordingly. Absent a deadline for payment that is tied to the proposed COD, CDG Facilities would be incentivized to submit bids with any COD, even if it is not accurate, to have a better chance at obtaining a capacity allocation in the Platform 2 Host Offer. If a CDG host proposes a COD that it knows it cannot achieve, the Company will still collect the Platform 2 Upfront Fee within that timeframe, ensuring that delivery customers are not harmed from the lost opportunity of enrolling a different CDG facility that could have achieved commercial operation within the proposed timeframe.

However, if a CDG Facility does not achieve commercial operation prior to the proposed COD, the Company does not intend to terminate the CDG Facility's Statement of Qualification for the Platform 2 Host Offer. The Company recognizes that project permitting, construction, and interconnection delays can occur that may cause a proposed CDG Facility to deviate from its proposed COD at no fault of the CDG host. As a result, to maintain their Statement of Qualification in the Platform 2 Host offer, CDG hosts will be required to provide a report to the Company every 90 calendar days leading up to the final COD of the CDG Facility that provides the following updates:

- 1. Approvals and permits received
- 2. Approvals and permits needed
- 3. Updated estimated COD

If a CDG host does not file a quarterly report, or sufficiently demonstrate that the CDG project is progressing forward, the Company may terminate CDG project's Statement of Qualification.

A2.4. Ongoing Assessment

The Company will continuously evaluate the success of its marketing and customer acquisition efforts and aim to match the Platform 2 Host Offer solicitations with the pace of demand for CDG satellite enrollment in the Platform 2 Satellite Offer. For instance, if the Company conducts the first solicitation for 50 MWs and immediately receives demand for CDG satellite enrollments exceeding 50 MWs, the Company would consider releasing another 50 MW solicitation soon thereafter. Conversely, if the Company completes the first solicitation and after 6 months has only acquired CDG satellites equating to 10 MWs, the Company may delay postpone the release of the next solicitation until it is able to increase demand for CDG satellite enrollments.

Appendix 3: Estimated Costs and PSR

A3.1. Estimated Costs

The Company expects that the program costs will fit within four major categories: (1) IT system upgrades; (2) billing costs; (3) marketing costs; and (4) program management costs.

Figure 7 below presents the estimated program implementation costs, which will be included in the Company's revenue requirement.

(\$'000s) YEAR	1	2	3	4	5	6	7	8	9	10 to 27
IT System Upgrades										
Billing System Update	-	-	150	150	150	150	150	150	150	-
SAP Update	-	-	20	20	20	20	20	20	20	-
Host Enrollment Portal	20	20	20	20	20	20	20	-	-	-
Customer Enrollment Portal	50	50	50	50	50	50	50	-	-	-
CDG-P Software ⁴⁹	310	310	310	310	310	310	310	-	-	-
IT Project Manager	180	180	-	-	-	-	-	-	-	-
Program Support Resources	170	60	-	-	-	-	-	-	-	-
Billing Costs										
Manual Billing	140	160	-	-	-	-	-	-	-	-
Ongoing Billing	460	540	1,040	1,060	1,080	1,110	1,130	1,150	1,170	22,130
Marketing Costs										
Satellite Acquisition	4,580	1,200	-	-	-	-	-	-	-	-
Turnover Management	-	300	400	410	420	430	440	440	450	9,910
Customer Engagement	100	130	130	140	140	10	10	10	10	250
Research and Surveys	50	70	70	70	70	-	-	-	-	-
Other Costs										
Program Manager	220	230	230	230	240	240	250	250	260	5,660
Total Costs	6,280	3,250	2,420	2,460	2,500	2,340	2,380	2,020	2,060	37,950

Figure 7: Estimated Costs⁵⁰

A3.1.1. IT System Upgrade Costs

The implementation of the IT system upgrades will require the following cost components:

1. Billing System Update: IT work required to automate the Net Credit Allocation billing process.

⁴⁹ The CDG-P Software cost is an estimate based on discussions with CDG stakeholders. The cost estimate provided here is expected to have a variance of - 50%/+100%. Actual costs will depend on RFP results for the procurement of the 3rd party software package.

⁵⁰ The forecasted IT and billing system implementation costs listed in Figure 7 represent a forecast that are expected to have a variance of +/- 25% and include the following components: Billing System Update, Developer Enrollment Portal, Customer Enrollment Portal, and Integration and Support.

- **2. SAP Update:** Updates to the Company's accounting system to enable payments to CDG hosts.
- **3. Host Enrollment Portal:** IT work required to create a portal for CDG hosts to enroll in the CDG-P program.
- **4. Customer Enrollment Portal:** IT work to develop a customer enrollment portal for Platform 2.
- **5. CDG-P Software:** Costs for third party software platform required to implement Platform 2.
- **6. IT Project Manager:** Internal project management resources.
- **7. Program Support Resources:** Internal IT resources to support the design and integration of the respective IT systems.

A3.1.2. Billing Costs

The billing costs will include the following cost components:

- **1. Manual Billing:** Implementation of the manual billing process for the Net Credit Allocation.
- 2. Ongoing Billing: Ongoing billing operations costs.

A3.1.3. Marketing Costs

The marketing costs will include the following cost components:

- **1. Acquisition Costs:** Initial marketing and customer enrollment costs CDG satellites in Platform 2.
- **2. Turnover Management:** Ongoing marketing and customer enrollment costs to backfill for customers that exit Platform 2.
- **3. Customer Engagement:** Ongoing marketing costs focused on retaining customers enrolled in Platform 2.
- **4. Research and Surveys:** Ongoing customer surveys conducted to drive continuous improvement in marketing strategy and program design.

A3.1.4. Program Management Costs

The program management costs include internal labor costs associated with managing the implementation and operations of the CDG-P program.

A3.2. Platform Service Revenue calculation

The Company has modeled the potential platform service revenue, and resulting net benefits to delivery customers, under the following assumptions regarding price and market uptake:

- Platform Service Revenue Share: The model assumes that 80% of all platform service revenue is shared with distribution customers, with the remaining 20% being retained by the Company.⁵¹
- **Cost Recovery:** The model assumes that all costs associated with the implementation of the Platform 2 Host Offer will be recovered from delivery customers in delivery rates.⁵²
- CDG Expansion: The model assumes that within five years after the launch of the CDG-P Program, the entire 525 MWs of capacity eligible for the Community Credit the Value Stack Tariff in National Grid's territory will be fully subscribed, with all 525 MWs commercially operational within three years. Figure 8 below highlights the assumptions53 regarding annual CDG enrollment totals in National Grid's territory:

Year	2019	2020	2021
Cumulative CDG Enrollment (MW)	128	457	525

Figure 8: Annual Enrollment in CDG Community Credit

- CDG Host Enrollment: The model assumes that 35% of new CDG host capacity in 2020 and 50% of new CDG host capacity in 2021 will enroll in the Platform 2 Host Offer, and that 75% of all CDG host Capacity will enroll in the Platform 1 Service.
- **CDG-P Transaction Fee:** The model assumes an annual CDG-P Transaction Fee of \$0.02/W.
- Platform 2 Maintenance Fee: The model assumes an annual Platform 2 Maintenance fee priced at \$0.09/W.
- Platform 2 Upfront Fee: The model assumes a Platform 2 Upfront Fee of \$0.09/W.

While the actual PSR created through the CDG-P Program will depend upon market uptake of the CDG-P Program as well as actual bid prices resulting from the Platform 2 Host Offer solicitations, Figure 9 below provides an estimate of the total PSR and Figure 10 provides an estimate of the net benefits flowing to delivery customers because of the CDG-P Program, given the above assumptions:

⁵¹ Refer to section 1.5. for more details regarding the Company's proposal for platform service revenue sharing.

⁵² Refer to section 1.4. for more details regarding the Company's proposal for cost recovery.

⁵³ The forecasted annual CDG enrollment assumes that 100% of CDG projects currently in the construction phase will be delivered on their forecasted interconnection date in 2019 and 2020, and that 50% of CDG projects currently in study or under agreement will be delivered in 2020. The delivery of the remaining 68 MW of the 525 MW of capacity eligible for the community credit after 2020 is assumed to occur in 2021.

(\$'000s) YEAR	1	2	3	4	5	6	7	8	9	10 to 27
Platform 1 PSR	3,660	4,280	6,550	6,690	6,820	6,960	7,090	7,240	7,380	139,200
Platform 2 PSR	8,290	3,130	840	850	870	890	910	930	940	20,610
Total PSR	11,950	7,410	7,390	7,540	7,690	7,850	8,000	8,170	8,320	159,810

Figure 9: Platform Service Revenue Share with Delivery Customers

(\$'000s)	Low	Mid	High
NPV for Delivery Customers	9,659	81,498	147,290

Figure 10: Net Benefits to Delivery Customers

A3.3. Cost and Platform Service Revenue Impacts

The Company expects that the proposed CDG-P program will create a significant direct benefit to customers in the form of a PSR that would offset the costs of the Tariff's Value Stack compensation mechanism. As outlined in Figure 10, the Company estimates that the PSR shared with delivery customers will significantly exceed the program implementation costs and will result in net benefits to delivery customers.

Appendix 4: Design Considerations for the Platform 2 Satellite Offer

When designing the Platform 2 Satellite Offer, the Company originally considered two different designs for the Platform 2 Host Offer and customer enrollment process: (1) a CDG Marketplace model; and (2) a "Simple Offer" model, which the Company has proposed as its CDG-P Offer.

Under the CDG Marketplace model, customers would follow a similar process to the Customer Enrollment process outlined for the proposed design above. Customers would be directed to an enrollment portal and initially be presented with educational material to teach them the basic concept and value of CDG. Then, if interested, the Customer would be directed to a CDG Marketplace, which would present the customer with several potential CDG Facilities that they could choose to enroll in. Each facility would be able to dictate its own pricing structure as well as its own terms and conditions, and the customer would be able to select the CDG Facility that best fit the customer's needs. The idea with this concept is to provide customers with information to compare offers from different service providers and to let customer choice drive competition in the market. This design is similar in nature to the Company's rooftop solar marketplace, which functions in exactly this manner. ⁵⁴

The Simple Offer model, by contrast, seeks to simplify the enrollment process by eliminating the element of customer choice. As detailed in Section 1.2.2.1., the Platform 2 Satellite Offer provides all customers with a single standardized offer, and very simple set of terms and conditions, and upon acceptance of those terms and conditions, the customer is automatically paired with a CDG Facility based on a set of matching criteria. The basis for this approach was driven by observations with the Company's rooftop solar marketplace. Although the Company saw relatively high levels of interest in the rooftop marketplace, the sales completion rate was only around 2%. ⁵⁵ While there are several factors contributing to the low sales completion rate, one key driver is the complexity of the rooftop sales process, even in the context of a marketplace that is designed to easily compare quotes across multiple solar installers. The Simple Offer Model seeks to increase adoption rates by leveraging the potential for community solar to offer a very simple enrollment process, which will provide customers with a single offer that is backed by National Grid, functioning in the role of the customer's trusted utility partner and energy advisor.

⁵⁴ National Grid's rooftop solar marketplace can be accessed at https://www.energysage.com/ngny/.

⁵⁵ Since the launch of the rooftop solar marketplace in May 2018, a total of 60,504 customers have visited the marketplace, 5,197 customers have requested quotes, and 115 customers have completed sales.

To determine which model would result in the highest CDG adoption rates, the Company conducted a concept test through National Grid's "Customer Council," which is a group of customers that have agreed to serve as an online focus group for the Company. ⁵⁶ The concept test consisted of a survey that solicited feedback on the two customer acquisition models from more than five hundred customers. Respondents first received an explanation of how community solar works and were then presented with a mock-up of a customer enrollment experience through either the Marketplace Model or the Simple Model and asked to respond to a series of questions regarding their level of interest signing up for community solar through each model. Survey results showed that customers were more than twice as likely to respond as either "extremely interested" or "very interested" in signing up for community solar when presented with the Simple Offer. ⁵⁷

The survey feedback confirmed the company's hypothesis that creating a standardized offer for customers would create an improved customer experience and yield the highest CDG adoption rates. Additionally, all CDG satellites enrolled in a participating CDG project, whether enrolled in Platform 1 or Platform 2, will benefit from a streamlined billing experience through the Net Credit Allocation.

-

⁵⁶ National Grid and its affiliates launched a Customer Council in 2018. This is an online community of approximately 6,000 customers who represent a wide cross-section of the customer base in New York, Massachusetts, and Rhode Island. The customers have signed up to be a part of the Customer Council and have agreed to provide ongoing feedback to the Company on various topics.

⁵⁷ The survey results also indicated that some customers could be skeptical of the simple offer model, wondering if there were hidden fees and not understanding why they would get an offer for bill savings for free. This feedback indicates the importance of a strong educational component to ensure that customers understand how CDG works, what they are signing up for, and why it is available to them.

Appendix 5: System Enhancements Needed to Implement Proposed CDG-P

As identified in the diagram below, there are two systems needed to deliver on the proposed Net Credit Allocation: a developer enrollment portal and upgrades to the billing system. Two additional systems, a customer enrollment portal and an algorithm to match customers to projects the Company is calling the CDG-P Software, will also be needed to deliver the customer acquisition offer. This section reviews the implementation plan for each of these systems.

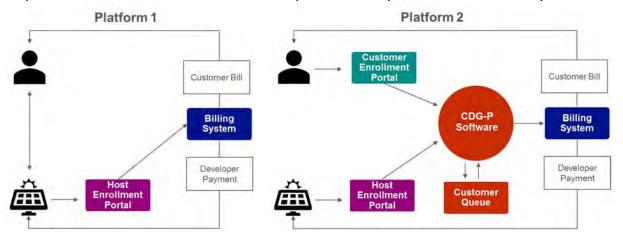


Figure 11: Upgrades to the billing system and the addition of a Host Enrollment Portal are needed to deliver Platform 1 (left). A Customer Enrollment Portal and new back-end software to match customers to projects are also needed to deliver Platform 2 (right).

A5.1. IT Systems Needed to Deliver the Net Credit Allocation

A5.1.1. Host Enrollment Portal

The purpose of the Host Enrollment Portal is to enroll developers in consolidated billing and customer acquisition services. This Portal will be integrated into the existing DG Interconnection Portal, where developers are already applying for interconnection permits. The following adjustments will be made to the DG Interconnection portal:

- A landing page to explain the program
- A checkbox to enroll in the Net Credit Allocation Service
- If the CDG host enrolls in the Net Credit Allocation Service, the amount of the bill credit they want to allocate to each of their subscribers
- A checkbox to enroll in the Platform 2 Host Offer, which will be enabled if they meet the qualifications to enter the program

• If the CDG host enrolls in the Platform 2 Host Offer, their bid price for the auction

National Grid will develop the Host Enrollment Portal internally. Development and implementation is expected to take approximately six months.

A5.1.2. Billing System

A process is already in place to apply the Value Stack credits to the bills of customers that are currently subscribed to a CDG project. To enable the Net Credit Allocation, the following adjustments must be made to the billing system:

- A new field must be created to notify the system that the host and satellites are enrolled in Platform 1 or Platform 2.
- In the existing process, the entire bill credit value is applied to the Satellite bill. For projects enrolled in Platform 1, only the net bill credit will be applied. A new algorithm will be developed to correctly calculate the net credit.
- A process created to calculate and pay the fees to National Grid.
- A process created to calculate and pay the CDG Host Payment.

The full implementation of these changes is linked to the existing plan to automate the Value Stack bill credit allocation and is expected to take approximately two years to complete. Prior to the fully automated billing solution being available, National Grid will implement a manual billing process. The manual billing process will take approximately three months to develop and implement.

A5.2. IT Systems Needed to Deliver the Acquisition Platform

A5.2.1. Customer Enrollment Portal

The purpose of the Customer Enrollment Portal is to educate customers on the program, enroll them in the program, provide ongoing information about their enrollment, and unenroll customers no longer interested in participating. The Customer Enrollment Portal will have three components: a landing page with educational material, the enrollment process, and an account page. This Portal will be integrated into the existing MyAccount system that currently handles other customer-facing portals. National Grid will be responsible for building and delivering the functionality for the portal.

Landing Page: The landing page will educate customers on community solar and provide more details on how to sign up through National Grid. If Single Sign-On capabilities are available and the customer is signed in, the landing page can include customer specific information, such as providing a real estimate of how much they could save on their bills if they enroll in community solar. The landing page will include a link for customers to enroll.

Enrollment Process: Customers that follow the link to enroll from the landing page will enter the enrollment process. The process includes the following steps:

- Data collection: If Single Sign-On capabilities are available and the customer is signed in, the Portal will pull the relevant data automatically from the customer's account. If the Single Sign-On is not available, the customer will be prompted to enter relevant data, such as their name, address, and account number.
- 2. Eligibility check: The information collected will be used to determine the customer's eligibility. If eligible, the customer will move to the next step. If the customer is not eligible, they will be notified through the portal and the process will end.
- 3. Terms and conditions: The customer will be presented with the terms and conditions for enrollment. If the customer accepts, they will move onto the next step. If they do not accept, the process will end.
- 4. Project matching: The customer's data will be sent to the CDG-P Software and will be processed as described in the CDG-P Software section below. The CDG-P Software will return a matched project to the portal.
- 5. Confirmation: The Portal will display details about the matched project, including statistics about the project and expected date that it will be operational and when the customer can expect to start receiving bill credits.

Account Page: After matching to the project, the customer can log into their account page if they remain subscribed. The account page will have information about the current project they are matched with, how many credits they have received while they have been subscribed, and the environmental benefits of the projects they are supporting. The account page will also include a button to unenroll from the program.

National Grid will develop the Customer Account Portal internally. Development and implementation is expected to take approximately six months.

A5.2.2. CDG-P Software

As customers enroll through the Acquisition Platform, they will be matched to a CDG facility. The purpose of the CDG-P Software is to identify the right project for the customer and send this match back to the Customer Enrollment Portal and to the Billing System. The CDG-P Software will handle the back-end processes for customer enrollment, sharing ongoing details about the project with the customer, and customer unenrollment.

Enrollment: The CDG-P Software will run the following enrollment process:

- 1. When a CDG facility is accepted into the Acquisition Platform, the Host Enrollment Portal will share details about the project to the CDG-P Software, including capacity available, project location, and estimated Commercial Operation Date.
- 2. Once an enrollment request comes into the Customer Enrollment Portal, the Portal will share that request, along with relevant customer data such as account number, location, consumption data, and income qualification to the CDG-P Software.
- 3. The CDG-P Software will use the customer's historical data to estimate how many bill credits should be allocated to the customer for each billing period.
- 4. The CDG-P Software will match the enrolled customer to a project
 - a. The Software will use the following criteria to find the best match:
 - i. Availability of capacity to meet the customer's consumption needs
 - ii. Proximity to the project
 - iii. Time to Commercial Operation Date
 - b. If no suitable match is available, then the CDG-P Software will manage a waitlist and will add the customer to the waitlist. Once a new CDG facility is accepted into the program, the CDG-P Software will give priority to customers on the waitlist.
 - c. If a suitable match is available, the CDG-P Software will share the customer's information and bill credit allocation to the Billing System and the Customer Enrollment Portal.

Ongoing Information Sharing with Customer: On an ongoing basis, the CDG-P Software will share details about the project the customer is enrolled in with the Customer Enrollment Portal, including the location, size, Commercial Operations Date, and number of bill credits allocated to the customer.

Customer Unenrollment: The CDG-P Software will process unenrollment requests. It will remove the unenrolling customer from the project they are enrolled in and will make that project capacity available to a customer on the waitlist or the next eligible customer to come through the Customer Portal.

National Grid expects to use a vendor to develop and implement this software. The Company will run a Request for Proposals to select the vendor. While the timeline will be dependent on the outcome of the RFP, the Company estimates that the software will take approximately ten months to procure and implement.

Appendix 6: Marketing and Customer Engagement Plan

A6.1. Development of the Customer Engagement Plan

The objective of the CDG-P Marketing and Customer Engagement Plan is to raise awareness and enable ease of participation for customers in the Platform 2 Community Solar offering. We have designed the Plan to specifically address the historical barriers for low-to-moderate income (LMI) customers to participate in Community Solar offerings and will engage in targeted marketing for LMI communities.

National Grid recognizes that maximizing benefits requires transparent, thoughtful, and personalized customer engagement. In developing the Plan, the Company used:

- Internal learnings from Company solar initiatives, needs-based customer segmentation insights, surveys, and ongoing customer-focused initiatives;
- External research from the Smart Electric Power Alliance (SEPA), U.S. Department of Energy (DOE), customer engagement plans from peer utilities, and industry reports; and
- A comprehensive collaborative process.

Today's customers expect more from their utility. Industry research and customer survey results suggest that customers not only expect their utility to provide affordable, reliable, and safe energy, but also increasingly expect access to actionable information, greater choice and control over their energy use, and delivery of energy services in a simple and convenient way. National Grid customers:

- Expect energy to be affordable;
- Request tailored, personalized choices for energy consumption options; and
- Need convenient energy services and solutions.

A6.1.1. National Grid Customer Strategy and Segmentation

Maximizing customer engagement requires a deeper understanding of who the Company's customers are, what they need, and what they want – and a recognition that those needs and desires are differentiated across the Company's upstate New York customers. To better serve our customers, the Company recently completed a needs-based customer segmentation.

The segments were compiled by gathering feedback from the Company's customers through an extensive online survey, combining the survey data with existing database information, and applying a quantitative cluster analysis to arrive at the differentiated segments. A high-level

view of the six residential segments identified from the survey are shown below. The segments are supported with in-depth profiles of energy-related customer attitudes, including what is most important to them; their preferred method of communication, including communications with the Company; and products and services of most interest to them. Each segment has its own unique tendencies, such as level of satisfaction with National Grid, engagement preference, and favored means of interaction.



Figure 12: National Grid Residential Customer Segmentation Overview

The Company has begun to leverage these insights to better identify target customers for different product and service offerings. These segments are *needs-based* and not necessarily based on income or other demographic factors; upstate New York customers on the income-eligible bill credit through the Energy Affordability Program ("EAP"), for example, are distributed across all segments, as follows:

Help Wanted: 33%

Young Green Movers: 28%Effortless Independents: 21%

Mature Basics: 13%

Educated Eco-Friends: 7%Affluent Conservers: 4%

All target LMI customers will receive Community Solar messaging, regardless of Customer Segment.

For non-LMI residential customers, the Company plans to target Help Wanted and Young Green Movers.

For many products and services, this analysis can be used to determine which segments to target based on their needs and interests. For this Plan, which seeks to engage upstate New York customers in the Niagara Mohawk service territory, especially LMI customers, the

Company expects to utilize communication channels (e.g., direct mail, website, email, social media, community meetings) tailored to the preferences of defined segments. This approach will help the Company most effectively educate and empower different customers to choose to participate in the Community Solar Program. The Company will also refresh its segmentation analysis periodically to ensure its insights remain relevant and useful to ongoing customer engagement efforts.

A6.1.2. Solar Marketing Experience

The Company has leveraged its experience bringing solar to the Fruit Belt Community in Buffalo to inform this Marketing and Customer Engagement Plan. A key learning from the Fruit Belt program shows us the importance of partnering with trusted community partners such as the Fruit Belt Coalition, non-profit houses of worship, community action agencies, and the Department of Social Services.

The Company is also informed by learnings from marketing efforts for rooftop solar in upstate New York. In 2018 the Company created a marketing campaign called 'Love Solar' that highlighted the benefits to customers of choosing to put rooftop solar panels on their home. Analysis of marketing channels used in that campaign showed that email was the most effective means of achieving sales in the program. For the current year's campaign, the Company is leveraging customer segmentation to engage in targeted marketing to customers with a high propensity for adopting rooftop solar, highlighting benefits in easy to understand language.

A6.1.3. Customer Interest in Community Solar

Only 20% of people surveyed by Smart Electric Power Alliance and the Shelton Group⁵⁸ reported familiarity with Community Solar, also referred to as Community Distributed Generation ("CDG"), and only 14% were seriously considering participating. This reflects a prominent need for customer education about Community Solar. Interest jumped to 47% after the study organizers explained the concept to customers using an infographic. Of those interested in Community Solar, 67% wanted the program to be sponsored by their utility.

Smart Electric Power Alliance and the Shelton Group concluded that an organization must invest heavily in consumer education for large-scale Community Solar to reach its potential. Similarly, Smart Grid Consumer Collaborative⁵⁹ found "the complexity of [Community Solar] transactions will require even greater consumer education and promotional efforts to achieve scale."

⁵⁸ Smart Electric Power Alliance & the Shelton Group, *What the Community Solar Customer Wants*, http://solarmarketpathways.org/wp-content/uploads/2017/07/SEPA Community-Solar-Customer-Wants .pdf ⁵⁹ Smart Grid Consumer Collaborative, *Consumer Driven Technologies research*, http://smartenergycc.org/wp-content/uploads/2016/10/SGCC-Consumer-Driven-Technologies-Study-Executive-Summary-10-19-16.pdf

As indicated by internal customer research (6.3 Internal Company Studies), National Grid customers similarly lack familiarity and experience with Community Solar to date, yet are interested in participation:

- 60% of UNY customers have not heard of Community Solar
- 39% of UNY customers indicate they are extremely or very interested in signing up based on the proposed Community Solar Platform model

This customer insight affirms the need for a strong customer education component in any effective Community Solar marketing campaign.

A6.1.4. Approach to Reaching LMI Customers

Low income customers are defined by NYSERDA as those households earning less than 60% of the State Median Income (SMI) for New York. Moderate income customers are defined as those households earning between 60% and less than 80% of the SMI for New York.

LMI households spend a disproportionate amount of their income on energy (14% or more), ⁶⁰ so the financial savings made possible through Community Solar are especially impactful to this audience. However, as described in Section 1.1, these customers have been disproportionally underserved by the CDG market. In addition to the structural changes proposed in the CDG-P Program, the Company proposes to focus its marketing efforts on the LMI community to drive participation and improve equity in the CDG program. By prioritizing equity in solar availability, we can provide all communities and customers the opportunity to participate in clean energy programs.

To identify geographies for focused marketing, the Company considered several factors, including:

- Counties with a lower median household income than the New York state median household income of \$62,765⁶¹
- Counties with a high concentration of low-income UNY residential electric customers who are already participating in EAP (at/above the territory average of 9% of customers)
- Customer segmentation and demographics
- Geographic proximity of the counties to each other
- Media markets

⁶⁰ACEEE, Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities, https://aceee.org/sites/default/files/publications/researchreports/u1602.pdf
⁶¹ U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates,

https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2017/

- Customer interest in solar⁶²
- Propensity to participate in energy efficiency programs
- Locations of National Grid Consumer Advocates⁶³
- Locations of existing CDG projects in upstate New York

The Company has selected three priority areas for marketing concentration with a multichannel campaign:

County	Percent of Customers on EAP	Median Household Income ⁵	Cities/Towns
Oneida	14%	\$51,316	Utica, Rome, Whitesboro, New Hartford
Erie	13%	\$54,006	Buffalo, Tonawanda, Grand Island, Hamburg, Amherst, Angola
Onondaga	11%	\$57,271	Syracuse, Liverpool, Baldwinsville

Additional target areas that will likely receive a smaller customer engagement effort in year two onward will include:

County	Percent of Customers on EAP	Median Household Income ⁵	Cities/Towns
Montgomery	13%	\$47,449	Amsterdam
Fulton	9%	\$48,033	Gloversville, Johnstown
Herkimer	9%	\$49,077	Herkimer, Little Falls
Jefferson	9%	\$50,322	Watertown, Carthage
Niagara	9%	\$51,656	Niagara Falls, North
			Tonawanda
Oswego	9%	\$51,755	Oswego, Fulton, Central
			Square
Schenectady	10%	\$61,315	Schenectady

Within these target areas, there are 97,153 residential electric low-income customers already participating in EAP, and an additional 750,201 National Grid non-LMI residential customers,

⁶³ National Grid employs "Consumer Advocates" who meet with LMI customers at events in the community to connect them with applicable programs and solutions.

⁶² 43% of upstate New York customers have expressed interest in solar through National Grid's Customer Council survey mechanism

presenting a significant market opportunity for Community Solar. Figure 13 below highlights the target communities for the Company's focused marketing efforts.

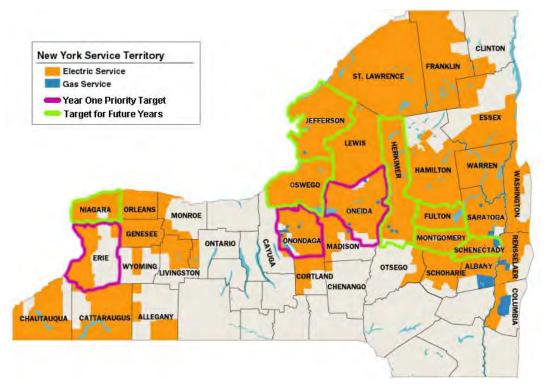


Figure 13: Target Communities for Marketing

A6.1.4.1. Existing LMI Solutions for Upstate New Yorkers

It is important to acknowledge there is a myriad of solutions available to LMI upstate New Yorkers. The Company will position its CDG-P offer in a clear, complementary fashion, without creating customer confusion.

A6.1.4.2. Designing Communications to Overcome Barriers for LMI Customers

Communications for the Community Solar Platform will be designed to overcome common issues that other programs targeting⁶⁴ LMI customers have encountered, including:

- Language barriers
- Lack of Internet access
- Constraints on resources and time

⁶⁴ Adapted from: Interstate Renewable Energy Council (IRC), *Shared Renewable Energy for Low- to Moderate-Income Consumers: Policy Guidelines and Model Provisions*. https://irecusa.org/publications/shared-renewable-energy-for-low-to-moderate-income-consumers-policy-guidelines-and-model-provisions/

- Distrust and skepticism often the targets of scams, customers in low-income communities may be distrustful of claims relating to energy and money savings, and may have privacy concerns
- Consider solar a luxury for the wealthy, believing they cannot participate
- Lack of knowledge or understanding about what Community Solar is
- Complexity of how the bill credit mechanism works
- Confusion regarding whether they qualify as an LMI customer

A6.2. Customer Engagement Plan

Using the learnings outlined in the previous section, National Grid has developed a robust Plan to inform and educate National Grid customers on the benefits of Community Solar to drive enrollment in the Platform 2 Satellite Offer. Given the goal of the CDG-P to improve CDG market access for LMI customers, marketing will be prioritized to LMI customers, with non-LMI residential electric customers receiving a smaller customer engagement effort. The Plan is structured around three distinct phases (education, enrollment, and customer engagement), as summarized in the following subsections.

This phased approach will support the customer journey and will include specific marketing strategies with defined messages, audiences, channels, and educational materials to generate customer interest, increase awareness, and drive customer enrollment and engagement in Community Solar. Simple, customer-friendly materials will be developed across brand interaction channels to target different customer segments and reach a diverse audience.

Before launch, we will test messages and visuals through the National Grid Customer Council to ensure effectiveness and a distinct community connection. Throughout each phase of the Plan, the Company will further apply a "Listen, Test, Learn" methodology by using feedback from customer surveys, customer focus groups, community partners, the Company's Consumer Advocates, call center representatives, and the Company's Customer Council to continue refining messages and outreach strategies. This approach has been foundational to supporting continuous improvement of the Company's programs. Messages that are not resonating will be adjusted and newly deployed. Metrics to understand and proactively manage customer engagement performance throughout the entire experience are described in Section A6.3.

A6.2.1. Phase One: Education

A6.2.1.1. Objectives and Approach

The objectives of the Customer Engagement Plan in Phase One will be to:

- Build a foundation of educational materials on Community Solar rationale and customer benefits ("why this is good for the customer?") to be utilized externally;
- Educate and train National Grid employees, including executive leadership, Consumer Advocates, customer service representatives, customer and community managers, account managers, regulatory team members, and Corporate Communications about the Community Solar Platform, rationale and benefits;
- Begin customer and stakeholder outreach effort, including grassroots campaign and media relations, to build Community Solar awareness, generate customer interest, facilitate enrollments;
- Address customer concerns that arise (ex. affordability, privacy, etc.); and
- Answer potential customer questions by preparing a Frequently Asked Questions (FAQ) document

The Company will build flexibility into our Marketing and Customer Engagement Plan, so it can ramp efforts up or down as necessary depending on program performance and available capacity.

During Phase One, National Grid will aim to develop customer and stakeholder trust through continuous, transparent communication. The Company will begin outreach and education ahead of program launch to ensure customers are aware of the various program benefits and interested in immediate enrollment. A wait list will be available for customers who opt to sign up before projects go live.

A6.2.1.2. Communication Channels

Figure 14 below shows the proposed communications channels and the target audience for each channel.

Channel	Primary Target Audience		
	Income Eligible Customers on EAP	Moderate Income Customers	Non-LMI Residential Customers
Outreach to Department of Social Services, Community Agencies, Non-Profits, etc.	*	-	
Outreach to Municipalities and Media Outlets	¥.	*	1
Radio	4	1	1
Billboards	1	V	V
Employee Education	1	V	V
Community Events with Consumer Advocates	1	1	
Mobile & Desktop Banner Ads	· ·	V	V
Facebook/Social Media	~	·	V
Paid Search	√	/	· ·
Direct Mail	¥		
Direct Outbound Calling	7		
E-Mail	¥	V	×
Bill Inserts	*		
On-Bill Messages	✓ ·	1	1

Figure 14: Education Communication Channels and Target Audiences

Communication channels were strategically selected to:

- **Drive Awareness** Large-scale consumer education is necessary through awareness tactics like radio and billboards, as customers currently lack familiarity and experience with Community Solar. Billboards visible during morning and evening drive times will reinforce messaging that may be heard on the radio during a customer's daily commute. For example, we may pair audio ads on iHeart Radio's Y94 soft rock station in Syracuse along with billboards positioned on the Interstate-690 corridor, so customers can both see the message on a billboard and hear the message on the radio during their commute times, which will strengthen retention. Media outreach will also be important to try and generate earned media coverage in local newspapers, TV stations, radio stations, and online websites.
- Partner with Trusted Community-Based Organizations As evidenced by the Fruit Belt project, partnerships with trusted community-based organizations are essential to building a trusted, local connection with customers, especially in LMI communities. To promote Community Solar and boost participation among customers, the Company will send letters announcing the CDG-P, conduct webinar training sessions, and provide talking points and customer-facing collateral to relevant community groups, state and local agencies, and municipalities. The Company has identified potential target organizations listed in Section A6.5.2.

- Align with Customers' Channel Preferences The Company will use channels that align with customers' communication preferences. For example, income-eligible customers indicate their preferred communication channels⁶⁵ are:
 - o On-bill messages
 - Direct mail Direct mail paired with on-bill messages will help us reach customers who are not tech savvy, do not have e-mail addresses, and/or do not have broadband Internet access.
 - o E-mail
 - Social media (especially Facebook)

A6.2.1.3. Consumer Advocate Events

The Company's upstate New York Consumer Advocates help low-income, payment-challenged, and special needs customers. There are ten Consumer Advocates, including one manager and nine employees, who each meet in person with customers in designated counties across the Company's upstate New York service territory.

Consumer Advocates regularly host Customer Assistance Expo events in upstate New York to help LMI customers participate in National Grid assistance solutions (as appropriate based on each customer's unique situation). Potential LMI solutions include HEAP, EAP, Hospitalized Customer Assistance Plans, and Serious Illness/Medical Emergency Protections. Upon program launch, CDG-P will also be promoted at these pre-existing Expos.

Additionally, Consumer Advocates will staff newly developed Community Solar Educational Events in our priority territories during year one. We anticipate hosting multiple Community Solar Educational Events in each of the three priority counties, as follows:

- Oneida county, with a focus on Utica (and potentially event[s] in Rome, Whitesboro, and/or New Hartford)
- Erie county, with a focus on Buffalo (and potentially event[s] in Tonawanda, Grand Island, Hamburg, Amherst, and/or Angola)
- Onondaga county, with a focus on Syracuse (and potentially event[s] in Liverpool and/or Baldwinsville)

A6.2.1.4. Employee Engagement & Training

The Company's employees, many of whom live in the Company's service territory, are key ambassadors and vital to successful deployment of CDG-P. Therefore, the Company will educate appropriate employees early and often on the Community Solar effort through a

⁶⁵ National Grid's New England Income-Eligible 2017 Focus Groups and Smart Energy Consumer Collaborative (SECC) Low Income Research

variety of channels, including employee forums, webinars, learning platforms, email outreach, senior management-led presentations and discussions, and other general communication methods utilized for critical Company updates. By enabling employees to serve as community champions for offered products and services, overall customer awareness and education is vastly improved.

A6.2.1.5. Content of Communications

National Grid's communications will be informed by learnings and best practices from other programs. For example, Pacific Consulting Group's national study discovered the most effective messaging platform for Community Solar is: **"Every homeowner and renter is eligible."**

Another study by Smart Electric Power Alliance and the Shelton Group⁶⁷ measured customers' preference for rooftop solar versus Community Solar. Community Solar was preferred by customers who demonstrated a price sensitivity (and therefore the lack of system maintenance costs with Community Solar proved an appealing benefit). Conversely, rooftop solar was preferred by customers who desired control and ownership.

Smart Electric Power Alliance and the Shelton Group's report indicates that effective messaging should directly address the benefits that prompt customers' interest in Community Solar, as follows (listed in order of priority according to study results):

- Lower energy costs This is a price-sensitive audience that needs to hear loud and clear
 that the Platform 2 Satellite Offer costs nothing to join and could save them up to 10%
 on their electric bills. The study revealed that the target audience prioritized "no sign-up
 fee" and "no rate premium."
- Environmental benefits Customers interested in Community Solar tend to be concerned about climate change and their personal impact on the planet, per the Smart Electric Power Alliance and the Shelton Group's report. Many of these customers care about being responsible and not wasting energy (and understand the correlation between their behavior and the state of the environment). They are likely to be engaged on the topic of energy efficiency and understand the impact of supply and demand on energy costs. Many of these customers also realize that traditional methods of producing electricity are not ideal for the environment and feel a sense of duty to do something about it. "You can be a part of the solution" proved an effective message for this target audience, many of whom want to make a real, measurable difference.

⁶⁷ Smart Electric Power Alliance & the Shelton Group, *What the Community Solar Customer Wants*. http://solarmarketpathways.org/wp-content/uploads/2017/07/SEPA Community-Solar-Customer-Wants .pdf

⁶⁶ Pacific Consulting Group, Why Community Solar Isn't More Popular ... And What To Do About It, https://www.pcgfirm.com/why-community-solar-isnt-more-popular-and-what-to-do-about-it/

• **Local community connection** – Respondents preferred that the Community Solar panels be located in their community and visible near where they live, work, and play.

National Grid's Community Solar communications will follow best practices^{68 69} as outlined below.

Using simple and straightforward language: It is important to use simple, straightforward language in solar communications, as more than 70% of customers surveyed by E Source do not understand terms typically used by the industry such as rider, universal solar, interconnection, photovoltaic, green pricing, utility-scale solar, and self-generation.

Promoting Community Solar as a part of a comprehensive suite of solar options: Provide information about solar in an easily accessible and visible section on the www.nationalgridus.com website (and accompanying online marketplace, www.ngrid.com/shop). Offer a side-by-side comparison of rooftop and Community Solar options in forthcoming renewable energy advisor to minimize potential customer confusion.

Transparently addressing financial implications: The economic benefits are a critical element that impacts participation decisions as indicated in customer research (Section 6.3). The Company will clearly communicate the following information:

- Upfront and ongoing costs and savings There are no upfront fees to join National Grid's Platform 2 Satellite Offer, and customers will begin realizing savings upon being matched with an operational Community Solar facility. Participating will yield customers up to a 10%⁷⁰ discount compared to the price they would ordinarily pay for electricity through their monthly National Grid bill, but will vary based on the actual production from the associated Community Solar facility. Community Solar facilities are developed to save customers' money on their energy bills.
- How long the customer would have to commit to participating There is no commitment term. The offer will follow a month-to-month subscription model that allows participants to become subscribers and pay a lower price for the electricity sourced from the Community Solar project. Customers do not own or lease the panels they simply receive bill credits resulting from a portion of the Community Solar facility's production.

⁶⁸ Low Income Solar Policy Guide: *Increasing Low-Income Access to Community Solar*. http://www.lowincomesolar.org/wp-content/uploads/2017/09/SPI-2pager-2017_d.pdf

⁶⁹ E Source: *The Solar Education and Communications Gap*. https://www.esource.com/system/files/files/esource-solar-wg-1700001-002-solar-education-communications-gap.pdf

⁷⁰ Marketing materials will be explicit that while customers may save up to 10% on their electric bill, actual savings will vary based on actual CDG project production, and may be lower than 10%.

- Whether it costs money to drop out of the program There is no cancelation fee. If a subscriber decides to opt out or moves to a different utility's service area, their spot will be opened to the next aspiring participant in line on the wait list.
- How much solar electricity the customer can purchase Up to 100% of the customer's
 electric use will be covered by solar produced at a local Community Solar project but will
 be dependent upon actual production from the Community Solar facility, which may
 vary based on factors such as weather and seasonal variations.

A6.2.2. Phase Two: Enrollment Process

A6.2.2.1. Objectives & Approach

The objectives of the Customer Engagement Plan in the enrollment phase will be to:

- Reduce friction in enrollment process to make it easy for customers to sign up for participation in the Platform 2 Satellite Offer.
- Build tactics and tools for customers who do not have access to the internet and/or do not have an email address.

Tactics in Phase Two will be directed to all targeted customer audiences. During Phase Two, National Grid will aim to further build and support customer and stakeholder trust through continuous, transparent communication and tools. The Company will continue outreach to enrolled customers up to three months in advance of each project coming online.

A6.2.2.2. Educational Materials & Outreach Strategy

In Phase Two: Enrollment, a variety of educational and informational materials will be created and deployed:

- A "Community Solar Enrollment Guide" to share educational and participation information with customers in easy to use formats;
- Frequently Asked Questions (FAQ) document to address any questions or concerns preemptively;
- Customer Bill Changes Overview to clearly explain changes to the customer's bill expected with the participation in the Community Solar Platform;
- A Welcome/Confirmation email to customers in advance of their first bill to minimize customer confusion;
- Community Enrollment Events will be held in collaboration with key community
 partners so customers without internet access, those who need help signing up, or who
 prefer more information before enrolling can do so in person with National Grid staff
 and trained representatives from trusted community partners.

Channel	All Targeted Customers
Community Solar Enrollment Guide - video, infographic, and/or text	*
Frequently Asked Questions	1
Explanation of Changes to Your Bill	√
Confirmation/Welcome E-Mail in advance of first bill	✓
Tactics for customers without internet access/e-mail	✓.

Figure 15: Enrollment Communication Channels and Target Audiences

Billing system upgrades and/or a manual process will need to be developed to exactly determine participating customers' bill changes, but the Company has included a mock-up below to give a general sense of potential impacts.

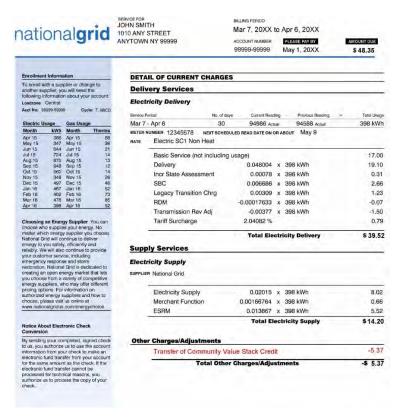


Figure 16: Mock-Up of Electric Bill of Customer Participating in Community Solar⁷¹

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⁷¹ The mock-up shows what the bill is expected to look like after all the billing system upgrades are complete. Before these upgrades, the Net Credit line item is expected to read "Transfer Credit/Charges".

A6.2.3. Phase Three: Customer Engagement

Phase Three of the Plan seeks to ensure that customers remain engaged with the CDG-P after the initial enrollment process. When customers feel engaged with the CDG-P, the Company believes they are more likely to:

- Remain enrolled in CDG-P themselves, and
- Refer the program to neighbors, family members, friends, and colleagues enabling effective word-of-mouth marketing

A6.2.3.1. Objectives and Approach

In Phase Three, the Marketing and Customer Engagement Plan will focus on generating promotion by enrolled customers on social media and referring friends/family/neighbors to participate in the program. An E Source study⁷² shows that 31% of all survey respondents are more interested in Community Solar if they can show others they are participating. Forty-seven percent of people who expressed interest in Community Solar become somewhat or significantly more interested if they can publicly demonstrate their participation.

When customers purchase⁷³ electricity from a large-scale solar system, they don't have panels on their rooftop to publicly display to their community that they participate in renewable energy. Younger customers ages 18 to 34 are especially interested in publicizing their participation in the program.

Potential marketing channels to promote a customer's Community Solar involvement could include:

⁷² E Source: *The Solar Education and Communications Gap*. https://www.esource.com/system/files/files/esource-solar-wg-1700001-002-solar-education-communications-gap.pdf

⁷³ E Source: *Solar Customers Want to Promote Their Participation in Community Solar Programs*. https://www.esource.com/sss-1700012-001/solar-customers-want-promote-their-participation-community-solar-programs

Channel	All Targeted Customers
Participant Identification – may include door/window sticker, refrigerator magnet, or yard sign	*
Social Media Posts for Participants – customers can share previous month's solar output through social media icons within the Portal, linking interested friends and family to a program webpage to learn more	*
E-Mails – monthly or quarterly e-mails thanking participating customers, recapping solar array output, impact of participation, and providing global, state, and local solar news and activity/milestones	· ·
Refer a Friend Program – consider offering a customer incentive	1
Customer Assistance – easily accessible way for customers to ask questions through an online e-mail form and/or by calling a dedicated phone number	4
Portal Pop-Up Message – "Are you sure you want to unenroll?" pointing to helpful resources to help troubleshoot issues (FAQ, the e-mail online form, and the phone number) and gather feedback on rationale for unenrolling	*
Garden Tours – for participating customers, photo ops	1
Tactics for customers without internet access/e-mail	1

Figure 17: Engagement Communication Channels and Target Audiences

We will also look at best practices outside of the utility industry by looking at the sharing economy. Sharing economy innovators⁷⁴ include Uber, Lyft, Airbnb, personal car rental app Turo, and group dining experience Feastly. Driving forces include a sense of community, reduction of idle assets, no burden of ownership, less resource intensity, mobile tech/loT, and social networks. The sharing economy creates dynamic relationships between various entities including crowd-funders, makers, providers, co-creators, peers, and customers.

A6.2.3.2. Managing Customer Turnover

The Company seeks to mitigate customer turnover (the instance of CDG satellites cancelling their CDG subscription and dropping with a CDG facility over time) by:

- 1. Clearly setting customer expectations ahead of enrollment, so they understand what they are signing up for and do not receive any unwelcome or confusing surprises.
- 2. Periodically recognizing customers for their participation through monthly/quarterly "thank you" e-mail messages including their system's details and information about their portion of the array's production, bill credits, and positive environmental impact.
- 3. Providing an annual report to customers that summarizes the production of the assigned Community Solar Facility, as well as the amount of kWh and dollar bill credits allocated to the customer.

⁷⁴ Accenture. *Destined to Disrupt: The State of the Sharing Economy.* https://insuranceblog.accenture.com/destined-to-disrupt-the-state-of-the-sharing-economy

- 4. Providing easily accessible customer assistance for those who have questions. Customers will be able to access an online form to initiate an e-mail conversation, as well as a phone number for those who prefer to speak to a program representative verbally.
- 5. Displaying a pop-up "Are you sure you want to unenroll?" message when customers initially attempt to unenroll through the online platform. The pop-up will point customers to several helpful resources a FAQ, the e-mail online form, and the phone number to help troubleshoot issues and hopefully encourage them to remain enrolled in the program.

To manage churn, the Company will maintain a waitlist of interested customers who seek to join when capacity becomes available. As customers drop out of the program, we will contact waitlist customers in the order they expressed interest.

A6.3. Metrics of Success

To determine the success of National Grid's Marketing and Customer Engagement Plan, the Company will measure customer awareness of Community Solar benefits and their interest in the program. To do this, National Grid has created customer engagement metrics that are categorized into the following three categories: Education, Engagement, and Enrollment.

A6.3.1. Education

The Education category includes two metrics that broadly measure to what extent customers have heard about Community Solar. The first metric measures awareness of Community Solar programs and customer benefits through a survey. It will be measured on an annual basis starting six months prior to the Commercial Operation Date for the first project and focusing on the cohort of customers in the defined target areas. The second metric is the number of low-income events where Community Solar information is presented and related details (*e.g.*, date and frequency of events, attendance numbers), which is also measured on a semi-annual basis. Taken together, these metrics provide both an outcome metric and a measure of the breadth of outlets where National Grid customers can learn about Community Solar and its benefits.

A6.3.2. Engagement/Empowerment/Tools

Unlike the Education/Awareness category of metrics, which mainly focuses on understanding of Community Solar before the project launch, the Enablement/Empowerment/Tools category of metrics broadly aims to measure customers' engagement with the CDG-P post-enrollment. Messaging about the project and its impact on the local area and benefits to the collective community can be shared. Additionally, the Company will create engagement tools like 'Refera-Friend' or 'Customer Success Stories.' The impacts of the Community Solar Marketing and Customer Engagement Plan's effectiveness in driving participation/enrollment will be

measured. The final metric will measure satisfaction with the National Grid Community Solar Platform, to be performed annually. This measurement could be for both customers and developers to get a wholistic view of the campaign and Program communication effectiveness. Taken together, these metrics will bring color to how and to what extent National Grid customers embraced the CDG-P, as well as highlight areas for National Grid to further help customers in their clean/renewable energy experience.

A6.3.3. Enrollment Measures

National Grid will measure and track enrollment and unenrollment and will use the information to optimize the post enrollment experience and messaging.

A6.4. Conclusion

The Company's Community Solar Marketing and Customer Engagement Plan is designed to inform and educate customers about National Grid's Proposed Program – with a primary goal of enabling and empowering customers to save money while supporting renewable energy at the local level. The Plan leverages industry research and best practices to create a comprehensive marketing strategy that will drive enrollment in the Platform 2 Satellite Offer. Additionally, by engaging in targeted marketing for LMI communities, the Plan seeks to drive high levels of awareness and participation among LMI customers in the CDG-P.

A6.5. Supporting Information

A6.5.1. Internal Company Studies

National Grid is committed to understanding customer needs, concerns, preferences and attitudes so the Company continuously collects customer feedback and opinions on ongoing operations and services. Instruments such as online surveys, mail surveys, telephone surveys, in person focus groups, online focus groups, and town hall meetings provide valuable insights. The findings from the studies listed below inform National Grid's customer outreach messaging and which benefits to highlight during each phase of the Marketing and Customer Engagement Plan.

National Grid launched a Customer Council in 2018. This is an online community of approximately 6,000 residential customers who represent a wide cross-section of the customer base in New York, Massachusetts, and Rhode Island. The customers have signed up to be a part of the Customer Council and have agreed to provide ongoing feedback to the Company on various topics.

Using its Customer Council, the Company conducted an online discussion forum with supporting polls, where upstate New York and Massachusetts customers could evaluate

Community Solar concepts depicting the proposed Simple Offer model and a more traditional Marketplace model.

Key relevant findings:

- There is a lack of familiarity with Community Solar, but clean energy accessibility and potential cost savings are intriguing.
- National Grid's involvement in the process can help customers overcome skepticism of working with third parties.
- The Simple Offer concept (proposed Community Solar Platform) garners the most customer interest in signing up for a Community Solar Program: it concisely articulates how they can benefit from it.
- Still, there is opportunity to make the claims made more believable, particularly around the financial aspects (upfront costs/fees, commitment) that are drivers of appeal.

A6.5.2. Overview of Community Partners Offerings/Services

This section provides a list of target partners that the Company will engage to help promote the program.

Office of Temporary and Disability Assistance (OTDA) – The Office of Temporary and Disability Assistance (OTDA) based in Albany, NY is responsible for supervising programs that provide assistance and support to eligible families and individuals. OTDA's functions include:

- Providing temporary cash assistance;
- Providing assistance in paying for food;
- Providing heating assistance;
- Overseeing New York State's child support enforcement Program;
- Determining certain aspects of eligibility for Social Security Disability benefits;
- Supervising homeless housing and services programs; and
- Providing assistance to certain immigrant populations.

National Grid is interested in presenting Community Solar at the OTDA Conference in January 2020 in Albany.

Department of Social Services Offices – Customers seeking to apply for the Home Energy Assistance Program (HEAP, which helps low-income customers pay the cost of heating their homes) can do so online at www.myBenefits.ny.gov or through their HEAP Local District Contact (in person or by mail).

Community Action Agencies (CAAs) – Community Action Agencies are federally designated as the frontline resource for people living in poverty, providing direct services and support for

education, employment, and family support services for low income families. With a network of 49 organizations located throughout the Empire State that can reach every New Yorker, Community Action Agencies form a statewide service delivery system that connects individuals and families to the services they need to achieve economic security. In the Company's target counties for Community Solar, Community Action Agencies include:

- Mohawk Valley Community Action Agency, Inc. with offices in Utica, Rome, and Ilion (covering Oneida and Herkimer counties)
- Community Action Organization of Western New York in Buffalo (covering Erie county)
- PEACE, Inc. in Syracuse (covering Onondaga county)
- Fulmont Community Action Agency, Inc. with offices in Fonda, Northville, Amsterdam, Gloversville, St. Johnsville, Canajoharie, and Fort Plain (covering Montgomery and Fulton counties)
- Schenectady Community Action Program, Inc. in Schenectady (covering Schenectady county)
- Community Action Planning Council of Jefferson County, Inc. in Watertown (covering Jefferson county)
- Niagara Community Action Program, Inc. in Niagara Falls (covering Niagara county)
- Oswego County Opportunities, Inc.in Fulton (covering Oswego county)

Non-profit organizations including:

- PUSH Buffalo PUSH Buffalo mobilizes residents to create strong neighborhoods with quality, affordable housing, expand local hiring opportunities, and advance economic justice in Buffalo.
- Southside Community Coalition This non-profit organization is aimed at restoring, revitalizing, and rejuvenating the South Side neighborhood of Syracuse through a partnership with community residents, agencies, organizations, and Syracuse University.

NY Green Bank is a State-sponsored, specialized financial entity working with the private sector to increase investments into New York's clean energy markets, creating a more efficient, reliable and sustainable energy system. NY Green Bank is headquartered in New York City.

Community Groups

Non-Profit Houses of Worship

New York State Energy Research and Development Authority (NYSERDA) offers objective information and analysis, innovative programs, technical expertise, and support to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce reliance on

fossil fuels. In the Company's target counties for Community Solar, NYSERDA's offices in Albany and Buffalo are appropriate for outreach.

 National Grid is interested in presenting Community Solar at the Low-Income Forum on Energy Statewide Conference in April 2020.

New York State Association for Affordable Housing is the trade association for New York's affordable housing industry statewide. Its 375 members include for-profit and non-profit developers, lenders, investors, syndicators, attorneys, architects and others active in the financing, construction, and operation of affordable housing.

Housing Authorities including Amsterdam, Buffalo, Gloversville, Herkimer, Niagara Falls, Oneida, Oswego, Rome, Schenectady, Syracuse, Utica, and Watertown

The Urban and Community Development Program (UCDP) encourages economic and employment opportunities for New York State's citizens and stimulates development of communities and urban areas.

Municipalities to encourage local participation at the community level

A6.5.3. Examples of Previous Marketing Campaigns

UNY Rooftop Solar E-Mail:

Subject Line: Adding Solar to Your Home Just Got a Whole Lot Easier!



Dear

You probably already know that solar energy could help cut your utility bills* and reduce carbon emissions. But, did you know that it's now easier than ever to add solar to your home?

We've partnered with EnergySage to help families in New York, like yours, get the facts about solar, find incentives and receive competitive quotes. So, with just a couple of clicks, you can find out what the sun can do for you!

Save time and money with the new New York Solar Marketplace.

- Learn more about solar energy and determine if your roof is suitable
- Discover how to save thousands on your solar installation with incentives
- Get quotes from multiple pre-screened solar installers in a standardized, easy-to-compare format

Visit the Solar Marketplace

*National Grid does not guarantee savings. Saving and energy efficiency experiences may vary. © 2018 National Grid

UNY Rooftop Solar Online Banner Ads:





Like how easy it is to get solar.

Love the NY Solar Marketplace.

SEE MORE



RI Income Eligible Welcome Guide Printed Brochure, cover:

Energy Savings Tips

- Use ENERGY STAR® certified light bulbs, appliances, and electronics.
- Turn off lights, appliances, TVs, stereos, gaming systems, and computers when they are not in use.
- Unplug chargers, laptops, and any items with a remote control or "instant on" feature.
- Use the smallest pan possible for your stovetop cooking.
- Wash your clothes in cold water, and air dry them whenever possible.
- Turn off air conditioners or fans if a room is unoccupied.
- Keep your home from overheating or overcooling when you're away. If you're going to be at home, keep your thermostat at 78° F or higher in the summer (and in the winter, set it to 68° F or lower).
- Change your air conditioner's thermostat fan setting from "continuous" fan operation to "auto."
- Clean your heating and cooling systems' filters every other month.

For More Information

Customer Service

1-800-322-3223

Collections

1-888-211-1313

Website

www.ngrid.com/ridiscount

www.ngrid.com

E-Mail

customerservice@nationalgrid.com

nationalgrid

EE7588 Eng (6/19



Not sure you can pay your next energy bill?

We can help.

nationalgrid

RI Income Eligible Welcome Guide Printed Brochure, page 2:

If you need help, there is hope.

If you have trouble paying your bill, we can help you with these programs and services:

Discount Rates

Enjoy a 25% discount on your National Grid electric and natural gas bills if you:

- Receive Food Stamps/Supplemental Nutrition Assistance Program (SNAP), or
- Qualify for Fuel Assistance/Low Income Home Energy Assistance Program (LIHEAP), or
- · Receive Supplemental Security Income (SSI).

Or, qualify for a 30% discount on your National Grid bills if you receive:

- Medicaid, or;
- Rhode Island Works Program, or
- General Public Assistance

Please apply for our discount rate via e-mail, mail, or fax and provide a confirmation letter from your assistance organization. Visit **www.ngrid.com/ridiscount** or call **1-800-322-3223** to learn more.



Fuel Assistance, also known as LIHEAP, is a federal grant program designed to help with your energy bill when you need it most. Income-qualifying customers may be eligible for funding to pay heating bills.

Good Neighbor Energy Fund

The Good Neighbor Energy Fund helps you pay your heating bill if you are in temporary financial crisis, but are not income-eligible for LIHEAP.

www.ngrid.com/ridiscount | 1-800-322-3223

RI Income Eligible Welcome Guide Printed Brochure, page 3:



Energy-Efficiency Opportunities

A no-cost energy assessment of your home can help you save energy and money, while making sure your home is healthy and comfortable for you and your family. You may even qualify for a new, no-cost efficient heating system, water heater, and appliances, plus home insulation and air sealing of leaks.

Protections help keep your electricity and natural gas heat on if you have problems

· Have an infant under 24 months old, or

Payment Agreements

You still have options, even if your service has been shut off for non-payment. Income eligible customers who meet the Arrears Management Program guidelines and pay a 25% down-payment (if service has been shut off for non-payment) will be provided with a payment plan. If you make payments on time, part of your past due amount may be forgiven.

www.ngrid.com/ridiscount | 1-800-322-3223

RI Income Eligible Welcome Guide Printed Brochure, page 4:



"I'm here to help."

A budget plan billing option spreads your projected annual energy costs into 12 predictable monthly payments, removing highs and lows in your bill from month to month.

National Grid offers many easy ways to pay your energy bills, including at no-fee cash locations near your home. Other payment options include by mail or over the phone.

Or, consider paperless e-billing—you can put down the paper and pick up a convenient new way to receive and pay your bill online. There's even an option to schedule automatic, ongoing payments from your bank account.

Your Personal Energy Advocate

You are invited to meet in person with a National Grid Customer Advocate to talk about the ways you can manage your energy costs. We look forward to meeting with you to discuss all available resources. For more information about meeting locations and times, please visit www.ngrid.com/ridiscount or call 1-800-322-3223.

www.ngrid.com/ridiscount | 1-800-322-3223

RI Income Eligible Bus Shelter Ad, version 1:



Reach us at 1-800-322-3223 or ngrid.com/ridiscount nationalgrid

RI Income Eligible Mobile Online Banner Ad:



RI Income Eligible Customer Advocate Video: https://youtu.be/gEtePeqahH8

ATTACHMENT 2

Proposed Tariff Leaf Changes

REDLINED TARIFF PAGES

PSC NO: 220 ELECTRICITY NIAGARA MOHAWK POWER CORPORATION

INITIAL EFFECTIVE DATE: DECEMBER 1, 2018

LEAF: 148.1 REVISION: 10 SUPERSEDING REVISION: 0

STAMPS: <u>Issued in Compliance with Order Issued September 12, 2018 in Case 15 E 0751 and 15 E 0082.</u>

GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG")

- 29.1.2.3 If the CDG Host account was previously established as a net metered Customer-Generator or Remote Net Metered Customer-Generator, it must forfeit any remaining kWh credits at the time it becomes a CDG Host.
- 29.1.3 The CDG Host will be responsible for building the CDG facility, interconnecting to the grid, and owning or operating the facility in conformance with the requirements of PSL 66-j (3)(e), (f) and (g) and 66-l (3)(e) except for projects being compensated under the VDER Value Stack per Rule 40.2 which are not limited to the same load zone requirement.
 - 29.1.3.1 The CDG Host electing service under this provision must execute a New York State Standardized Contract for Interconnection of New Distributed Generation Units <u>and Energy Storage Systems</u> with Capacity of 5 MW or Less Connected in Parallel with Utility Distribution Systems. CDG Hosts must operate in compliance with standards and requirements set forth in the New York State Standard Interconnection Requirements and Application Process for New Distributed Generators <u>and Energy Storage Systems</u> 5 MW or Less Connected in Parallel with Utility Distribution Systems, and as set forth within the SIR Addendum to this tariff, which may be amended from time to time.



PSC NO: 220 ELECTRICITYLEAF: 151.1NIAGARA MOHAWK POWER CORPORATIONREVISION: 0INITIAL EFFECTIVE DATE:SUPERSEDING REVISION:

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GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.4 Community Distributed Generation Platform ("CDG-P")

Customers who meet the requirements specified in Rule No. 29 and Rule No. 40 for a CDG Host or CDG Satellite may participate in the CDG-P program as specified in this Rule 29.4. CDG Hosts participating in the CDG-P will enroll in one of two CDG-P services offered by the Company: Platform 1 – "Net Credit Allocation" or Platform 2 – "Customer Acquisition Services", as further specified below. CDG Hosts may subscribe to Platform 1 service by completing a CDG-P Enrollment Form. CDG Hosts interested in participation in Platform 2 must follow the requirements provided in Rule 29.4.2.

29.4.1 Platform 1 – Net Credit Allocation ("NCA")

In lieu of the compensation provided to CDG projects in Rules 29 and 40, CDG projects enrolled in Platform 1 will be subject to an NCA compensation structure for the CDG project's hourly net injections. Each billing cycle, the NCA compensation structure will include the calculation of bill credits to be applied to the CDG Satellite accounts ("CDG-P Bill Credits") and a payment to the CDG Host ("CDG Host Payment"), as further specified below.

29.4.1.1 The Company will calculate a CDG-P Bill Credits for each of the CDG Satellite's accounts each billing period as follows:

<u>CDG-P Bill Credit = Value Stack Compensation * Platform 1 Value Stack Allocation Percentage * Satellite Allocation Percentage</u>

Where:

"Value Stack Compensation" equals the sum of the Value Stack components applicable to the CDG project's hourly net injections as calculated by the Company each billing period, in accordance with Rule 40.2.

"Platform 1 Value Stack Allocation Percentage" equals the percentage of the Value Stack Compensation the CDG Host will allocate to all CDG Satellite accounts. The Platform 1 Value Stack Allocation Percentage shall be from 0% to 100%. CDG Hosts will notify the Company of this percentage in the CDG-P Enrollment Form. The CDG Host may revise its Platform 1 Value Stack Allocation Percentage by providing an updated CDG-P Enrollment Form at least forty-five (45) days prior to the beginning of the billing period in which it will take effect.

"Satellite Allocation Percentage" equals the individual allocation percentage assigned to the individual CDG Satellite as specified by the CDG Host in the Company's allocation percentage form in accordance with Rule 29.3.

All the requirements applicable to CDG Hosts and CDG Satellites in Rule 29 of the Tariff would continue to apply for participation in Platform 1.

STAMPS:

GENERAL INFORMATION COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.4 Community Distributed Generation Platform ("CDG-P") (Continued)

29.4.1.2 The Company will calculate the CDG Host Payment each billing period as follows:

<u>CDG Host Payment = Value Stack Compensation – Total CDG-P Bill Credits – Credits Retained by CDG Host – CDG-P Transaction Fee</u>

Where:

"Value Stack Compensation" equals the Value Stack Compensation as specified in Rule 29.4.1.1.

"Total CDG-P Bill Credits" equals the sum of the CDG-P Bill Credits, specified in Rule 29.4.1.1 above, provided to the CDG Satellite accounts each billing period.

"Credits Retained by CDG Host" equals the Value Stack Compensation * (1 – sum of the Satellite's Allocation Percentages). Credits Retained by CDG Host are retained on the CDG Host account in accordance with Rule 29.3 subject to the credits retained being calculated as specified herein and may be distributed to CDG Satellites in accordance with Rule 40.2.5,

"CDG-P Transaction Fee" equals the "CDG-P Transaction Rate" (\$/kW) multiplied by the CDG project's applicable AC nameplate capacity in the year. The CDG-P Transaction Rate will be an annual rate divided by 12, fixed for the term of the CDG project based upon the rate in effect at the time of the CDG project's enrollment under Platform 1. The CDG project's CDG-P Transaction Rate, after its initial establishment, will be escalated annually by a CDG-P Escalation Factor based on the short-term annual Bureau of Labor Statistics inflation rate. The CDG-P Transaction Fee (\$/kW) rate and CDG-P Escalation Factor will be determined by the Company and filed in a rate statement with the Commission at least 15 days prior to its effective date.

The CDG Host Payment will be provided to the CDG Host by the Company in a separate payment following the billing period.

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GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.4 Community Distributed Generation Platform ("CDG-P") (Continued)

29.4.2 Platform 2 – Customer Acquisition Services

Platform 2 will include a similar CDG Satellite crediting and CDG Host payment structure as Platform 1, with modifications, as further described in Rules 29.4.2.1 and 29.4.2.2. CDG projects will pay the Company for participation in Platform 2 with such payments set by the Company through a competitive solicitation process, as described in Rule 29.4.2.3. In addition, the Company will provide satellite acquisition services to the CDG project, as specified in Rule 29.4.2.4.

CDG Projects participating in Platform 2 CDG-P must meet the following eligibility requirements:

- i. must be a new CDG project with no subscribed satellites;
- ii. have eligible solar generation or solar generation combined with eligible energy storage technologies in accordance with the requirements specified in Rules No. 29 and 40.

29.4.2.1 The Company will calculate a CDG-P Bill Credits for each of the Platform 2 CDG Satellite accounts each billing period as follows:

<u>CDG-P Bill Credit = Value Stack Compensation * Platform 2 Value Stack Allocation Percentage * Satellite Allocation Percentage</u>

Where:

"Value Stack Compensation" equals the Value Stack Compensation as described in Rule 29.4.1.1.

"Platform 2 Value Stack Allocation Percentage" equals the percentage of the Value Stack Compensation the CDG Host will allocate in total to the CDG Satellite accounts participating in Platform 2. The Platform 2 Value Stack Allocation Percentage shall be determined by the Company and filed in a rate statement with the Commission at least 15 days prior to its effective date.

"Satellite Allocation Percentage" equals the individual allocation percentage assigned to each CDG Satellite. The Satellite Allocation Percentage for each CDG Satellite will be determined by the Company each billing period as part of the Platform 2 services provided by the Company.

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GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.4 Community Distributed Generation Platform ("CDG-P") (Continued)

29.4.2.2 The Company will calculate the CDG Host Payment each billing period as follows:

<u>CDG Host Payment = Value Stack Compensation - Total CDG-P Bill Credits - Platform 2 Credits Retained by the Company - CDG-P Transaction Fee - Platform 2 Maintenance Fee</u>

Where:

"Value Stack Compensation" equals the total compensation as specified in Rule 29.4.1.1.

"Total CDG-P Bill Credits" equals the sum of the CDG-P Bill Credits provided to the CDG Satellite accounts each billing period specified in Rule 29.4.2.1 above.

"Platform 2 Credits Retained by the Company" equal the bill credits that, in the event the sum of the Satellite Allocation Percentages in each billing period is less than 100%, the Company will calculate based on the remaining percentage. Platform 2 Credits Retained by the Company may be re-allocated to the CDG Project's Platform 2 CDG Satellites within the same calendar year. At the end of each calendar year, any Platform 2 Credits Retained by the Company will be returned to delivery customers through the Value Stack Cost Recovery Surcharge, by component, as specified in Rule 40.3. Platform 2 Credits Retained by the CDG Host.

"CDG-P Transaction Fee Rate" equals the CDG-P Transaction Fee Rate as specified in Rule 29.4.1.2.

"Platform 2 Maintenance Fee" will be calculated as described in Rule 29.4.2.3 and represents a fee for the ongoing subscription acquisition and management services provided by the Company to the CDG project participating in Platform 2.

The CDG Host Payment will be provided to the CDG Host by the Company in a separate payment following the billing period.

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GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.4 Community Distributed Generation Platform ("CDG-P") (Continued)

29.4.2.3 Competitive Solicitation and Platform 2 Participation Fees

The Company will open a competitive solicitation for eligible CDG Hosts for a specific MW amount of eligible CDG project capacity by releasing a Request for Proposal ("RFP") for CDG Hosts to submit bids for participation in Platform 2, on an as needed basis. CDG projects will be eligible for the competitive solicitation if they meet the following additional requirements:

- i. Demonstrate that the CDG project has paid at least 25% of the Company estimated interconnection costs or has executed a Standard Interconnection Contract with the Company if no such payment is required.
- ii. CDG project must have received a statement of qualification for the Community Credit
- iii. Demonstrate that the CDG project's expected interconnection date is within the RFP specified eligibility period.
- iv. CDG project must not be operational at the time of the RFP.

CDG projects will bid their CDG project generation AC nameplate capacity kW and the \$/kW rate for the generation capacity they propose to pay the Company for Platform 2 participation. The Company will accept CDG project bids up to the MW amount available in the competitive solicitation, based on selection of the highest bid prices, subject to a minimum acceptable floor price as determined by the Company.

The CDG project will pay the Company the following fees for participation in Platform 2 to cover initial subscriber acquisition as well as ongoing subscriber acquisition and management services, as described in RFP.

- i. An up-front payment equal to the CDG project's \$/kW bid price multiplied by the CDG project's generation AC nameplate capacity kW bid ("Platform 2 Upfront Fee").
- ii. An ongoing annual payment equal to 7.5% of the Platform 2 Upfront Fee, increased annually by the CDG-P Escalation Factor. This annual payment will be divided by twelve ("Platform 2 Maintenance Fee") and provided as an offset to the CDG Host Payment as provided in Rule 29.4.2.2.

A CDG project's bid must be accepted by the Company for the CDG project to participate in Platform 2. Platform 2 CDG Projects will be required to follow the requirements as specified in the RFP for participation in Platform 2.

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NIAGARA MOHAWK POWER CORPORATION

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GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.4 Community Distributed Generation Platform ("CDG-P") (Continued)

29.4.2.4 Satellite Acquisition Services

As part of the Platform 2 services offered, the Company will identify customers within its service territory for participation and encourage enrollment as a CDG Satellite in the CDG-P. The Company will reserve a fixed percentage of each competitive solicitation capacity for CDG Satellites enrolled in the Company's Energy Affordability Program. The percent reservation will be initially set at 20% for the CDG-P program and may be modified by the Company from time to time. If at any time the Company is not able to fully subscribe the reserved percentage, the unsubscribed percentage will be included in the calculation of Platform 2 Credits Retained by the Company-Unallocated Bill Credits as provided in 29.4.2.12.



LEAF: 220.1 REVISION: <u>23</u> SUPERSEDING REVISION: <u>42</u>

STAMPS: Issued in Compliance with Order in Case 15 E 0751 issued April 18, 2019.

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:

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-P as specified in Rule 29.4, the applicable energy components calculated above will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P 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.

STAMPS: Issued in Compliance with Order in Case 15 E 0751 issued April 18, 2019.

REVISION: <u>42</u> SUPERSEDING REVISION: <u>01</u>

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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-P as specified in Rule 29.4, the applicable capacity components calculated above will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P as specified in Rule 29.4, 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.

INITIAL EFFECTIVE DATE: JUNE 1, 2019

STAMPS: Issued in Compliance with Order in Case 15 E 0751 issued April 18, 2019.

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:

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- 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 in order toto preserve the opportunity to participate in voluntary market environmental and sustainability certification programs by retaining the project's RECs₇₂. 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 RECs₇₂. 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-P as specified in Rule 29.4, the applicable environmental component calculated above will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P 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.

INITIAL EFFECTIVE DATE: JUNE 1, 2019

STAMPS: Issued in Compliance with Order in Case 15 E 0751 issued April 18, 2019.

LEAF: 220.5 REVISION: <u>+2</u> SUPERSEDING REVISION:<u>01</u>

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 participation in the Company's Commercial System Relief Program ("CSRP") as an alternative to DRV and 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 DRV or LSRV compensation for the remainder of their project term.

For CDG projects participating in the CDG-P as specified in Rule 29.4, the DRV component as calculated above will only apply to non-mass market satellites and will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P 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.

STAMPS: Issued in Compliance with Order in Case 15 E 0751 issued April 18, 2019.

LEAF: 220.5.1 REVISION: θ1 SUPERSEDING REVISION:0

GENERAL INFORMATION

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

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 dividing: i) the Company's \$/kW-year DRV Component rate in effect at the time of the project's Eligibility Date, by ii), 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 as an alternative to DRV and 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 DRV or LSRV compensation for the remainder of their project term.

For CDG projects participating in the CDG-P as specified in Rule 29.4, the applicable DRV component calculated above will apply to all CDG Satellites, except for CDG Satellites of projects that opt into the Company's CSRP, and will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P as specified in Rule 29.4, The DRV Component will apply to all CDG Satellites subscribers, with the exception of except for CDG Satellites subscribers of projects that opt into the Company's CSRP. 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.

INITIAL EFFECTIVE DATE: JUNE 1, 2019

STAMPS: Issued in Compliance with Order in Case 15 E 0751 issued April 18, 2019.

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.

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

Projects may elect to participation in the Company's CSRP as an alternative to DRV and 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 DRV or LSRV compensation for the remainder of their project term.

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 eligible CDG projects participating in the CDG-P as specified in Rule 29.4, the LSRV component calculated above will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For eligible CDG projects not participating in the CDG-P 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

STAMPS: Issued in Compliance with Order in Case 15 E 0751 issued April 18, 2019.

LEAF: 220.6.1 REVISION: θ1 SUPERSEDING REVISION: 0

GENERAL INFORMATION

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

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 eligible CDG projects participating in the CDG-P as specified in Rule 29.4, the LSRV component calculated above will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For eligible CDG projects not participating in the CDG-P 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.
- 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 subsystem 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.

LEAF: 220.7 REVISION: 45 SUPERSEDING REVISION: 34

STAMPS: Issued in Compliance with Order in Case 15 E 0751 issued April 18, 2019.

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-P as specified in Rule 29.4, the MTC component calculated above will be included in the Value Stack Compensation distributed to eligible CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P as specified in Rule 29.4, 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 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.

PSC NO. 220 ELECTRICITY

NIAGARA MOHAWK POWER CORPORATION

INITIAL EFFECTIVE DATE:

STAMPS:

LEAF: 220.7.0.1

REVISION: 0

SUPERSEDING REVISION:

GENERAL INFORMATION

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

vii. Value Stack Community Credit Component:

The Community Credit Component will only apply to 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 applicable Community Credit Component rate 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-P as specified in Rule 29.4, the Community Credit Component calculated above will be included in the Value Stack Compensation distributed to eligible CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P as specified in Rule 29.4, 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 will not be allowed to bank any Community Credit Components related to Unallocated Satellite Percentages.

LEA<u>F:</u>F NO. 220.9 REVISION: 01

SUPERSEDING REVISION: 0

STAMPS: Issued in Compliance with Order Issued September 14, 2017 in Case 15 E 0751 and 15 E 0082

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-P, as specified in Rule 29.4.

- 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, <u>as well as any Platform 2 Unallocated CDG-P Bill Credits associated with the Value Stack Capacity Component as specified in Rule 29.4.2.2</u>, 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.

REVISION: 21 INITIAL EFFECTIVE DATE: MAY 31, 2018 SUPERSEDING REVISION: 01

STAMPS: Issued in Compliance with Order Issued September 14, 2017 in Case 15 E 0751 and 15 E 0082

GENERAL INFORMATION

40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)

- 40.3.2.3 Environmental Market Value Cost Recovery
 - The Environmental Market Value costs will be determined as the product of i) the sum of all VDER Value Stack project's net injections during the recovery month, times ii) the market rate of RECs during the recovery month determined from available published market prices for Tier 1 RECs.

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- The Environmental Market Value costs will be recovered from the Company's supply customers on a per kWh basis as part of the Clean Energy Standard Supply charge, which is filed and reconciled annually, as specified in 46.3.5.
- 40.3.2.4 Environmental Out of Market Value Cost Recovery
 - The Environmental Out of Market Value costs will be determined as the difference between i) 40.3.2.4.1 the sum of all VDER Value Stack Environmental Components paid to projects and satellites, as well as any Platform 2 Unallocated CDG-P Bill Credits associated with the Value Stack Environmental Component as specified in Rule 29.4.2.2, where applicable, during the recovery month and ii) the Environmental Market Value costs determined in 40.3.2.3 for the recovery month.
 - 40.3.2.4.2 The Environmental 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 Environmental Component credits, in proportion to the credits received by each service class.
 - The Environmental Out of Market Value costs will be recovered on a per kWh basis for nondemand customers and a per kW basis for demand customers.

40.3.2.5 DRV Cost Recovery

- The DRV Component costs to be recovered will be the sum of all VDER Value Stack DRV Components paid to projects and satellites, as well as any Platform 2 Unallocated CDG-P Bill Credits associated with the Value Stack DRV Component as specified in Rule 29.4.2.2, where applicable, during the recovery month.
- 40.3.2.5.2 The DRV Component costs will be recovered from all delivery customers by service class and voltage delivery level, with the DRV Component costs that were provided to sub-transmission and transmission voltage delivery projects and satellites, where applicable, being allocated using the most recent transmission demand allocator (i.e., single coincident peak) from the Company's most current ECOS, and the DRV Component costs that were provided to primary and secondary voltage delivery projects and satellites, where applicable, being allocated using the most recent distribution demand allocator (i.e., non-coincident peak) from the Company's most current ECOS.
- The DRV Component costs will be recovered on a per kWh basis for non-demand customers and a per kW basis for demand customers.

INITIAL EFFECTIVE DATE: JUNE 1, 2019

STAMPS: Issued in Compliance with Order in Case 15 E 0751 issued April 18, 2019.

GENERAL INFORMATION

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

40.3.2.6 LSRV Cost Recovery

40.3.2.6.1 The LSRV Component costs to be recovered will be the sum of all Value Stack LSRV Components paid to projects and satellites, as well as any Platform 2 Unallocated CDG-P Bill Credits associated with the Value Stack LSRV Component as specified in Rule 29.4.2.2, where applicable, during the recovery month.

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- 40.3.2.6.2 The LSRV Component costs will be recovered from all delivery customers by service class and voltage delivery level, with the LSRV Component costs that were provided to sub-transmission and transmission voltage delivery projects and satellites, where applicable, being allocated using the most recent transmission demand allocator from the Company's most current ECOS, and the LSRV Component costs that were provided to primary and secondary voltage delivery projects and satellites, where applicable, being allocated using the most recent distribution demand allocator from the Company's most current ECOS.
- 40.3.2.6.3 The LSRV Component costs will be recovered on a per kWh basis for non-demand customers and a per kW basis for demand customers.

40.3.2.7 MTC and Community Credit Cost Recovery

- 40.3.2.7.1 The MTC and Community Credit Component costs to be recovered will be the sum of all Value Stack MTC and Community Credit Components paid to projects and satellites, <u>as well as any Platform 2 Unallocated CDG-P Bill Credits associated with the Value Stack MTC and Community Credit Cost Components as specified in Rule 29.4.2.2</u>, where applicable, during the recovery month.
- 40.3.2.7.2 The MTC and Community Credit Component 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 MTC and Community Credit Component credits, in proportion to the credits of the projects and satellites, where applicable, of each service class receive.
- 40.3.2.7.3 The MTC and Community Credit Component costs will be recovered on a per kWh basis for non-demand customers.
- 40.3.3 The costs in Rule 40.3.2 will be charged to applicable customers monthly on a two-month lag basis and will be included in the delivery charge line item on customers' bills, with the exception of the Environmental Market Value Cost Recovery which will be recovered as specified in Rule 40.3.2.3.
- 40.3.4 An annual reconciliation will be performed for each component of the VDER Value Stack Cost Recovery at the end of each calendar year, commencing with calendar year 2018. Any over/under collections as a result of this reconciliation will be reflected in the VDER Value Stack Cost Recovery on a two-month lag basis after the annual reconciliation.
- 40.3.5___The VDER Value Stack Cost Recovery will be shown on statements filed with the Public Service Commission apart from this rate schedule not less than three (3) days before their respective effective dates.

CLEAN TARIFF PAGES

GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG")

29.1.2.3 If the CDG Host account was previously established as a net metered Customer-Generator or Remote Net Metered Customer-Generator, it must forfeit any remaining kWh credits at the time it becomes a CDG Host.

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- 29.1.3 The CDG Host will be responsible for building the CDG facility, interconnecting to the grid, and owning or operating the facility in conformance with the requirements of PSL 66-j (3)(e), (f) and (g) and 66-l (3)(e) except for projects being compensated under the VDER Value Stack per Rule 40.2 which are not limited to the same load zone requirement.
 - 29.1.3.1 The CDG Host electing service under this provision must execute a New York State Standardized Contract for Interconnection of New Distributed Generation Units and Energy Storage Systems with Capacity of 5 MW or Less Connected in Parallel with Utility Distribution Systems. CDG Hosts must operate in compliance with standards and requirements set forth in the New York State Standard Interconnection Requirements and Application Process for New Distributed Generators and Energy Storage Systems 5 MW or Less Connected in Parallel with Utility Distribution Systems, and as set forth within the SIR Addendum to this tariff, which may be amended from time to time.



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GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.4 Community Distributed Generation Platform ("CDG-P")

Customers who meet the requirements specified in Rule No. 29 and Rule No. 40 for a CDG Host or CDG Satellite may participate in the CDG-P program as specified in this Rule 29.4. CDG Hosts participating in the CDG-P will enroll in one of two CDG-P services offered by the Company: Platform 1 – "Net Credit Allocation" or Platform 2 – "Customer Acquisition Services", as further specified below. CDG Hosts may subscribe to Platform 1 service by completing a CDG-P Enrollment Form. CDG Hosts interested in participation in Platform 2 must follow the requirements provided in Rule 29.4.2.

29.4.1 Platform 1 – Net Credit Allocation ("NCA")

In lieu of the compensation provided to CDG projects in Rules 29 and 40, CDG projects enrolled in Platform 1 will be subject to an NCA compensation structure for the CDG project's hourly net injections. Each billing cycle, the NCA compensation structure will include the calculation of bill credits to be applied to the CDG Satellite accounts ("CDG-P Bill Credits") and a payment to the CDG Host ("CDG Host Payment"), as further specified below.

29.4.1.1 The Company will calculate a CDG-P Bill Credit for each of the CDG Satellite's account each billing period as follows:

CDG-P Bill Credit = Value Stack Compensation * Platform 1 Value Stack Allocation Percentage * Satellite Allocation Percentage

Where:

"Value Stack Compensation" equals the sum of the Value Stack components applicable to the CDG project's hourly net injections as calculated by the Company each billing period, in accordance with Rule 40.2.

"Platform 1 Value Stack Allocation Percentage" equals the percentage of the Value Stack Compensation the CDG Host will allocate to all CDG Satellite accounts. The Platform 1 Value Stack Allocation Percentage shall be from 0% to 100%. CDG Hosts will notify the Company of this percentage in the CDG-P Enrollment Form. The CDG Host may revise its Platform 1 Value Stack Allocation Percentage by providing an updated CDG-P Enrollment Form at least forty-five (45) days prior to the beginning of the billing period in which it will take effect.

"Satellite Allocation Percentage" equals the individual allocation percentage assigned to the individual CDG Satellite as specified by the CDG Host in the Company's allocation percentage form in accordance with Rule 29.3.

All the requirements applicable to CDG Hosts and CDG Satellites in Rule 29 of the Tariff would continue to apply for participation in Platform 1.

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GENERAL INFORMATION COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.4 Community Distributed Generation Platform ("CDG-P") (Continued)

29.4.1.2 The Company will calculate the CDG Host Payment each billing period as follows:

CDG Host Payment = Value Stack Compensation – Total CDG-P Bill Credits – Credits Retained by CDG Host – CDG-P Transaction Fee

Where:

"Value Stack Compensation" equals the Value Stack Compensation as specified in Rule 29.4.1.1.

"Total CDG-P Bill Credits" equals the sum of the CDG-P Bill Credits, specified in Rule 29.4.1.1 above, provided to the CDG Satellite accounts each billing period.

"Credits Retained by CDG Host" equals the Value Stack Compensation * (1 – sum of the Satellite's Allocation Percentages). Credits Retained by CDG Host are retained on the CDG Host account in accordance with Rule 29.3 subject to the credits retained being calculated as specified herein and may be distributed to CDG Satellites in accordance with Rule 40.2.5,

"CDG-P Transaction Fee" equals the "CDG-P Transaction Rate" (\$/kW) multiplied by the CDG project's applicable AC nameplate capacity in the year. The CDG-P Transaction Rate will be an annual rate divided by 12, fixed for the term of the CDG project based upon the rate in effect at the time of the CDG project's enrollment under Platform 1. The CDG project's CDG-P Transaction Rate, after its initial establishment, will be escalated annually by a CDG-P Escalation Factor based on the short-term annual Bureau of Labor Statistics inflation rate. The CDG-P Transaction Fee (\$/kW) rate and CDG-P Escalation Factor will be determined by the Company and filed in a rate statement with the Commission at least 15 days prior to its effective date.

The CDG Host Payment will be provided to the CDG Host by the Company in a separate payment following the billing period.

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GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

- 29.4 Community Distributed Generation Platform ("CDG-P") (Continued)
 - 29.4.2 Platform 2 Customer Acquisition Services

Platform 2 will include a similar CDG Satellite crediting and CDG Host payment structure as Platform 1, with modifications, as further described in Rules 29.4.2.1 and 29.4.2.2. CDG projects will pay the Company for participation in Platform 2 with such payments set by the Company through a competitive solicitation process, as described in Rule 29.4.2.3. In addition, the Company will provide satellite acquisition services to the CDG project, as specified in Rule 29.4.2.4.

CDG Projects participating in Platform 2 CDG-P must meet the following eligibility requirements:

- i. must be a new CDG project with no subscribed satellites;
- ii. have eligible solar generation or solar generation combined with eligible energy storage technologies in accordance with the requirements specified in Rules No. 29 and 40.
- 29.4.2.1 The Company will calculate a CDG-P Bill Credit for each of the Platform 2 CDG Satellite accounts each billing period as follows:

CDG-P Bill Credit = Value Stack Compensation * Platform 2 Value Stack Allocation Percentage * Satellite Allocation Percentage

Where:

"Value Stack Compensation" equals the Value Stack Compensation as described in Rule 29.4.1.1.

"Platform 2 Value Stack Allocation Percentage" equals the percentage of the Value Stack Compensation the CDG Host will allocate in total to the CDG Satellite accounts participating in Platform 2. The Platform 2 Value Stack Allocation Percentage shall be determined by the Company and filed in a rate statement with the Commission at least 15 days prior to its effective date.

"Satellite Allocation Percentage" equals the individual allocation percentage assigned to each CDG Satellite. The Satellite Allocation Percentage for each CDG Satellite will be determined by the Company each billing period as part of the Platform 2 services provided by the Company.

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GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.4 Community Distributed Generation Platform ("CDG-P") (Continued)

29.4.2.2 The Company will calculate the CDG Host Payment each billing period as follows:

CDG Host Payment = Value Stack Compensation – Total CDG-P Bill Credits – Platform 2 Credits Retained by the Company – CDG-P Transaction Fee – Platform 2 Maintenance Fee

Where:

"Value Stack Compensation" equals the total compensation as specified in Rule 29.4.1.1.

"Total CDG-P Bill Credits" equals the sum of the CDG-P Bill Credits provided to the CDG Satellite accounts each billing period specified in Rule 29.4.2.1 above.

"Platform 2 Credits Retained by the Company" equal the bill credits that, in the event the sum of the Satellite Allocation Percentages in each billing period is less than 100%, the Company will calculate based on the remaining percentage. Platform 2 Credits Retained by the Company may be re-allocated to the CDG Project's Platform 2 CDG Satellites within the same calendar year. At the end of each calendar year, any Platform 2 Credits Retained by the Company will be returned to delivery customers through the Value Stack Cost Recovery Surcharge, by component, as specified in Rule 40.3. Platform 2 Credits Retained by the Company shall not be retained by the CDG Host.

"CDG-P Transaction Fee Rate" equals the CDG-P Transaction Fee Rate as specified in Rule 29.4.1.2.

"Platform 2 Maintenance Fee" will be calculated as described in Rule 29.4.2.3 and represents a fee for the ongoing subscription acquisition and management services provided by the Company to the CDG project participating in Platform 2.

The CDG Host Payment will be provided to the CDG Host by the Company in a separate payment following the billing period.

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GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.4 Community Distributed Generation Platform ("CDG-P") (Continued)

29.4.2.3 Competitive Solicitation and Platform 2 Participation Fees

The Company will open a competitive solicitation for eligible CDG Hosts for a specific MW amount of eligible CDG project capacity by releasing a Request for Proposal ("RFP") for CDG Hosts to submit bids for participation in Platform 2, on an as needed basis. CDG projects will be eligible for the competitive solicitation if they meet the following additional requirements:

- Demonstrate that the CDG project has paid at least 25% of the Company estimated interconnection costs or has executed a Standard Interconnection Contract with the Company if no such payment is required.
- ii. CDG project must have received a statement of qualification for the Community Credit
- iii. Demonstrate that the CDG project's expected interconnection date is within the RFP specified eligibility period.
- iv. CDG project must not be operational at the time of the RFP.

CDG projects will bid their CDG project generation AC nameplate capacity kW and the \$/kW rate for the generation capacity they propose to pay the Company for Platform 2 participation. The Company will accept CDG project bids up to the MW amount available in the competitive solicitation, based on selection of the highest bid prices, subject to a minimum acceptable floor price as determined by the Company.

The CDG project will pay the Company the following fees for participation in Platform 2 to cover initial subscriber acquisition as well as ongoing subscriber acquisition and management services, as described in RFP.

- i. An up-front payment equal to the CDG project's \$/kW bid price multiplied by the CDG project's generation AC nameplate capacity kW bid ("Platform 2 Upfront Fee").
- ii. An ongoing annual payment equal to 7.5% of the Platform 2 Upfront Fee, increased annually by the CDG-P Escalation Factor. This annual payment will be divided by twelve ("Platform 2 Maintenance Fee") and provided as an offset to the CDG Host Payment as provided in Rule 29.4.2.2.

A CDG project's bid must be accepted by the Company for the CDG project to participate in Platform 2. Platform 2 CDG Projects will be required to follow the requirements as specified in the RFP for participation in Platform 2.

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GENERAL INFORMATION

COMMUNITY DISTRIBUTED GENERATION ("CDG") (Continued)

29.4 Community Distributed Generation Platform ("CDG-P") (Continued)

29.4.2.4 Satellite Acquisition Services

As part of the Platform 2 services offered, the Company will identify customers within its service territory for participation and encourage enrollment as a CDG Satellite in the CDG-P. The Company will reserve a fixed percentage of each competitive solicitation capacity for CDG Satellites enrolled in the Company's Energy Affordability Program. The percent reservation will be initially set at 20% for the CDG-P program and may be modified by the Company from time to time. If at any time the Company is not able to fully subscribe the reserved percentage, the unsubscribed percentage will be included in the calculation of Platform 2 Credits Retained by the Company as provided in 29.4.2.2.



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.

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- 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:
- 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-P as specified in Rule 29.4, the applicable energy components calculated above will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P 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)

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.

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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-P as specified in Rule 29.4, the applicable capacity components calculated above will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P as specified in Rule 29.4, 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:

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- 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-P as specified in Rule 29.4, the applicable environmental component calculated above will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P 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.

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.

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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 participation in the Company's Commercial System Relief Program ("CSRP") as an alternative to DRV and 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 DRV or LSRV compensation for the remainder of their project term.

For CDG projects participating in the CDG-P as specified in Rule 29.4, the DRV component as calculated above will only apply to non-mass market satellites and will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P 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.

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GENERAL INFORMATION

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

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 dividing: i) the Company's \$/kW-year DRV Component rate in effect at the time of the project's Eligibility Date, by ii), 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 as an alternative to DRV and 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 DRV or LSRV compensation for the remainder of their project term.

For CDG projects participating in the CDG-P as specified in Rule 29.4, the applicable DRV component calculated above will apply to all CDG Satellites, except for CDG Satellites of projects that opt into the Company's CSRP, and will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P as specified in Rule 29.4, the DRV Component will apply to all CDG Satellites, except for CDG Satellites of projects that opt into the Company's CSRP. 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.

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

Projects may elect to participation in the Company's CSRP as an alternative to DRV and 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 DRV or LSRV compensation for the remainder of their project term.

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 eligible CDG projects participating in the CDG-P as specified in Rule 29.4, the LSRV component calculated above will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For eligible CDG projects not participating in the CDG-P 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

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GENERAL INFORMATION

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

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 eligible CDG projects participating in the CDG-P as specified in Rule 29.4, the LSRV component calculated above will be included in the Value Stack Compensation distributed to CDG Satellites as specified in Rule 29.4.

For eligible CDG projects not participating in the CDG-P 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.
- 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 subsystem 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.

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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-P as specified in Rule 29.4, the MTC component calculated above will be included in the Value Stack Compensation distributed to eligible CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P as specified in Rule 29.4, 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 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.

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GENERAL INFORMATION

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

vii. Value Stack Community Credit Component:

The Community Credit Component will only apply to 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 applicable Community Credit Component rate 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-P as specified in Rule 29.4, the Community Credit Component calculated above will be included in the Value Stack Compensation distributed to eligible CDG Satellites as specified in Rule 29.4.

For CDG projects not participating in the CDG-P as specified in Rule 29.4, 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 will not be allowed to bank any Community Credit Components related to Unallocated Satellite Percentages.

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- 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-P, as specified in Rule 29.4.

- 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, as well as any Platform 2 Unallocated CDG-P Bill Credits associated with the Value Stack Capacity Component as specified in Rule 29.4.2.2, 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.

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40. VALUE OF DISTRIBUTED ENERGY RESOURCES (VDER)

- 40.3.2.3 Environmental Market Value Cost Recovery
 - 40.3.2.3.1 The Environmental Market Value costs will be determined as the product of i) the sum of all VDER Value Stack project's net injections during the recovery month, times ii) the market rate of RECs during the recovery month determined from available published market prices for Tier 1 RECs.
 - 40.3.2.3.2 The Environmental Market Value costs will be recovered from the Company's supply customers on a per kWh basis as part of the Clean Energy Standard Supply charge, which is filed and reconciled annually, as specified in 46.3.5.
- 40.3.2.4 Environmental Out of Market Value Cost Recovery
 - 40.3.2.4.1 The Environmental Out of Market Value costs will be determined as the difference between i) the sum of all VDER Value Stack Environmental Components paid to projects and satellites, as well as any Platform 2 Unallocated CDG-P Bill Credits associated with the Value Stack Environmental Component as specified in Rule 29.4.2.2, where applicable, during the recovery month and ii) the Environmental Market Value costs determined in 40.3.2.3 for the recovery month.
 - 40.3.2.4.2 The Environmental 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 Environmental Component credits, in proportion to the credits received by each service class.
 - 40.3.2.4.3 The Environmental 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.

40.3.2.5 DRV Cost Recovery

- 40.3.2.5.1 The DRV Component costs to be recovered will be the sum of all VDER Value Stack DRV Components paid to projects and satellites, as well as any Platform 2 Unallocated CDG-P Bill Credits associated with the Value Stack DRV Component as specified in Rule 29.4.2.2, where applicable, during the recovery month.
- 40.3.2.5.2 The DRV Component costs will be recovered from all delivery customers by service class and voltage delivery level, with the DRV Component costs that were provided to sub-transmission and transmission voltage delivery projects and satellites, where applicable, being allocated using the most recent transmission demand allocator (*i.e.*, single coincident peak) from the Company's most current ECOS, and the DRV Component costs that were provided to primary and secondary voltage delivery projects and satellites, where applicable, being allocated using the most recent distribution demand allocator (*i.e.*, non-coincident peak) from the Company's most current ECOS.
- 40.3.2.5.3 The DRV Component costs will be recovered on a per kWh basis for non-demand customers and a per kW basis for demand customers.

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

40.3.2.6 LSRV Cost Recovery

- 40.3.2.6.1 The LSRV Component costs to be recovered will be the sum of all Value Stack LSRV Components paid to projects and satellites, as well as any Platform 2 Unallocated CDG-P Bill Credits associated with the Value Stack LSRV Component as specified in Rule 29.4.2.2, where applicable, during the recovery month.
- 40.3.2.6.2 The LSRV Component costs will be recovered from all delivery customers by service class and voltage delivery level, with the LSRV Component costs that were provided to sub-transmission and transmission voltage delivery projects and satellites, where applicable, being allocated using the most recent transmission demand allocator from the Company's most current ECOS, and the LSRV Component costs that were provided to primary and secondary voltage delivery projects and satellites, where applicable, being allocated using the most recent distribution demand allocator from the Company's most current ECOS.
- 40.3.2.6.3 The LSRV Component costs will be recovered on a per kWh basis for non-demand customers and a per kW basis for demand customers.

40.3.2.7 MTC and Community Credit Cost Recovery

- 40.3.2.7.1 The MTC and Community Credit Component costs to be recovered will be the sum of all Value Stack MTC and Community Credit Components paid to projects and satellites, as well as any Platform 2 Unallocated CDG-P Bill Credits associated with the Value Stack MTC and Community Credit Cost Components as specified in Rule 29.4.2.2, where applicable, during the recovery month.
- 40.3.2.7.2 The MTC and Community Credit Component 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 MTC and Community Credit Component credits, in proportion to the credits of the projects and satellites, where applicable, of each service class receive.
- 40.3.2.7.3 The MTC and Community Credit Component costs will be recovered on a per kWh basis for non-demand customers.
- 40.3.3 The costs in Rule 40.3.2 will be charged to applicable customers monthly on a two-month lag basis and will be included in the delivery charge line item on customers' bills, with the exception of the Environmental Market Value Cost Recovery which will be recovered as specified in Rule 40.3.2.3.
- 40.3.4 An annual reconciliation will be performed for each component of the VDER Value Stack Cost Recovery at the end of each calendar year, commencing with calendar year 2018. Any over/under collections as a result of this reconciliation will be reflected in the VDER Value Stack Cost Recovery on a two-month lag basis after the annual reconciliation.
- 40.3.5 The VDER Value Stack Cost Recovery will be shown on statements filed with the Public Service Commission apart from this rate schedule not less than three (3) days before their respective effective dates.