March 5, 2018

VIA ELECTRONIC MAIL

The Honorable Kathleen H. Burgess
Secretary
New York State Public Service Commission
Empire State Plaza, Agency Bldg. 3
Albany, NY 12223-1350

Re: Case # 15-E-0751 – In the Matter of the Value of Distributed Energy Resources

Dear Secretary Burgess:

On behalf of Alliance for a Green Economy, Association for Energy Affordability, Azure Mountain Power, Binghamton Regional Sustainability Coalition, Natural Resources Defense Council, New York City Environmental Justice Alliance, New York Lawyers for the Public Interest, Pace Energy and Climate Center, PUSH Buffalo, Solstice, Vote Solar, and WE ACT for Environmental Justice, also known as "The Aligned Parties," I hereby submit these comments on the "Staff Report on Low-Income Community Distributed Generation Proposal."

Respectfully submitted,

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NEW YORK STATE
PUBLIC SERVICE COMMISSION

In the Matter of the Value of Distributed Energy Resources	Case 15-E-0751
In the Matter of the Value of Distributed Energy Resources Working Group Regarding Low and Moderate Income Customers	Matter 17-01278
Proceeding on Motion of the Commission as to the Policies, Requirements and Conditions for Implementing a Community Net Metering Program	Case 15-E-0082

Joint Comments of the Aligned Parties on Staff Report on Low-Income Community Distributed Generation Proposal

The Aligned Parties[1] are a group of organizations that participated actively in the Value of Distributed Energy Resources Phase II Low to Moderate Income (LMI) Working Group ("the Working Group") and as a part of that process, assembled and filed a report ("Aligned Parties Proposal") identifying goals and outlining recommendations for the participation of low to moderate income (LMI) utility customers and environmental justice communities in the deployment of community distributed generation (CDG) in New York State. The full Aligned Parties Proposal is appended to this comment. The proposal was the culmination of several months of discussions within the Working Group setting and was intended as a document that captured what many participants in the process agreed upon as a suite of strategies to meet a range of REV policy goals

[1] The Aligned Parties include: Alliance for a Green Economy, Association for Energy Affordability, Azure Mountain Power, Binghamton Regional Sustainability Coalition, Citizens for Local Power, Ecogy Solar, Green Street Solar Power, Natural Resources Defense Council, New York City Environmental Justice Alliance, New York Lawyers for the Public Interest, Pace Energy and Climate Center, ProjectEconomics, PUSH Buffalo, Solstice, Vote Solar, WE ACT for Environmental Justice

within the VDER process, particularly those associated with LMI CDG participation and benefits.

The Aligned Parties appreciate the opportunity to comment on Staff's Report on Low-Income Community Distributed Generation Proposal ("Staff Report"), filed on December 18, 2017. This comment is responsive to the specific recommendations and requests for comment within the Staff Report. It also highlights some of the most important consensus recommendations made by the Aligned Parties Proposal that we collectively sought to have included in the Staff Report through the Working Group process. Further, we highlight some new recommendations to the Public Service Commission related to the next steps in the process.

Table of Contents

I. Introduction 2

II. New York as Compared to Other States 7

III. General Comments on the Staff Report 9

IV. Staff's Proposed Bill Discount Pledge Program 11

V. NYSERDA No-Cost Subscription Program 13

VI. Loss Reserve 14

VII. Environmental Justice Location Incentive 14

VIII. "Other Work Required" 17

IV. Further Process Recommendations 17

X. Conclusion 19

The Aligned Parties Original Filing 22

I. Introduction

The Commission has recognized that the nascent CDG market in New York State, if properly structured and supported, has the potential to meet a range of objectives around affordability and access for LMI households as well as redress historic inequities in overburdened environmental justice communities. We agree. Low income and environmental justice communities have been subsidizing the costs and bearing the

brunt of externalities of the energy system for decades.[2] It is therefore critical for the Commission to adopt strategies to avoid recreating the same entrenched inequities in the new REV energy market, and also affirmatively address those imbalances in how benefits and burdens are allocated.

Despite directives to develop solutions for overcoming barriers to low-income customer access to and participation in CDG, since the issuance the Public Service Commission's July 17, 2015 Order Establishing a Community Distributed Generation Program ("CDG Order"),[3] these barriers have persisted and additional challenges have arisen. These barriers and challenges were foreseeable, and were raised (by multiple parties in both the Community Net Metering[4] and Value of Distributed Energy Resources (VDER) proceedings.[5] Parties felt they had actionable and practical suggestions for overcoming these barriers, but little progress has been made. The Aligned Parties find ourselves navigating a complicated stakeholder processes without clear guidance on when and where we can expect additional actions to address the barriers and implement proposed solutions.

We urge the Commission to fulfill the promises of REV by acting decisively and clearly to implement clear market signals and complementary public programs to incentivize and scale equitable access to CDG. All customers must be given the opportunity to control costs and address climate issues through energy efficiency improvements to their homes and by moving their dollars to renewable energy.

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[2] NAACP, Just Energy Policies Compendium, available at: http://www.naacp.org/wp-content/uploads/2014/03/Just-Energy-Policies-Compendium_NAACP.pdf; NAACP, Lights out in the Cold, available at http://www.naacp.org/wp-content/uploads/2017/04/lights_out.pdf; Hernández D. Sacrifice along the energy continuum: a call for energy justice. Environ. Justice. 2015;8(4):151–156.

[3] New York Public Service Commission. "Order Establishing a Community Distributed Generation Program and Making Other Findings" July 17, 2015 http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={76520435-25ED-4B84-8477-6433CE88DA86}

[4] PSC Case 15-E-0082 Comment by the New York Shared Renewables Coalition. April 7, 2015. http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={BCADC94E-C75D-4EA3-AF46-7EF572D8CEA1}
PSC Case 15-E-0082 - Comments by the Energy Democracy Alliance. April 20, 2015. http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={449D91CA-61F9-4595-ACD9-67D90AE6CEE5}

[5] PSC Case #15-E-0751- Comments of 98 elected officials, organizations and businesses. December 5, 2016 http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={F0F9AC95-AC87-4CE1-A79F-0A3A956BA4E7}

The orders enabling CDG and later the transition to VDER compensation for CDG articulated concern for affordability and for low-income access to renewable energy at the heart of the rationale for those policies. The CDG order was premised on the need to provide equitable access to the benefits of clean energy generation:

> "As many of the commentators note, the purpose of Community DG 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. Many utility customers lack control over sites that can be configured into a location for a clean generation facility, even for solar photovoltaic (PV) panels, the most common form of small on-site clean distributed generation. Those customers nonetheless support the financing of clean generation facilities at other customer locations, because those facilities are generally funded in part through grants supported by the Renewable Portfolio Standard (RPS) surcharges added to the electric utility bills customers pay. A program whereby these customers can obtain the benefits of the clean generation they help fund is both equitable and would promote New York's clean energy policies.[6]

That order also prioritized CDG projects serving low-income customers or those in locationally beneficial areas for interconnection based on the rationale that they would be "coordinated with the REV goals of meeting locational reliability objectives, and serving the needs of low-income customers."[7]

Meanwhile, the first VDER Order[8] explicitly highlighted the opportunity for CDG to particularly serve low-income customers as a reason for including a market transition credit ("MTC") in the value stack:

> "CDG offers an important opportunity to expand access to DER in New York State, particularly to low-income customers and other customers who otherwise might not have the opportunity to install DG on their premises and participate in DER programs. However, the CDG market in New York State is nascent, with CDG authorized by the Commission less than two years ago and with many projects in the interconnection queue under various stages of development. The Commission is cognizant of the need to avoid taking actions or creating

[6] CDG Order at 89.
[7] *Id.* at 19.
[8] New York Public Service Commission. "Order on Net Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters" March 9, 2016

> uncertainty that could harm this market's development, and at the same time recognizes that these projects will be managed by CDG developers, anchor members, or subscriber organizations that have the capability to manage a more accurate compensation mechanism. In recognition of the gap that some projects may face between expected compensation under NEM and under the Value Stack and the need for certainty in the development of the CDG market, the Commission adopts an MTC for CDG projects, which will be divided into Tranches."[9]

The Commission also explicitly committed to addressing low-income access issues in immediate ways and with further process:

> Maintaining the commitment to promote affordability of electric service and opportunities for low-income customers to participate in clean DER, the Commission's adoption of a CDG policy was premised in part on broadening access to renewables, including serving low-income customers. In adopting CDG, the initial Phase 1 of the program included a project eligibility option of 20% low-income off-takers for a given project. While, there was no uptake or development of projects under this stipulation, **we stand by our commitment to pursue solutions to encourage low-income customer participation as discussed below.** *[emphasis added]*
>
> While recognizing the various ongoing efforts focused on this important topic, consistent with our underlying objectives in REV and our continued commitment to broaden access to clean energy for low-income customers, the Commission directs near term actions as well as additional process to continue these critical investigations. We acknowledge the comments of the EDA [Energy Democracy Alliance] and agree with them that CDG continues to offer great potential for broadening access to clean energy to low-income customers. Our actions in this order recognize both the critical need to address these issues with near-term intervention as well as the fact that there remain persistent challenges in this market segment despite the efforts discussed above.[10]

Both orders also expressed a commitment by the Commission and directives to Staff to address barriers to low-income CDG access:

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[9] *Id.* at *.

[10] VDER Order at 138-39.

> "To accomplish removal of obstacles to low income participation in Community DG, Staff is directed to initiate a collaborative involving NYSERDA, low-income community organizers, utilities and other interested stakeholders on developing means for encouraging low-income customer participation in Community DG. Besides creating the mechanisms necessary for removing barriers to participation, the collaborative shall consider devising demonstration projects directed toward encouraging broad low-income customer participation in Community DG."[11]
>
> "The Commission directs Staff to consider options to encourage low-income participation in CDG under the VDER Phase tariffs, including tailored approaches for CDG projects that comprise a majority of low-income off-takers."[12]
>
> "In consultation with stakeholders, Staff shall develop and file, by September 1, 2017, a Low-Income CDG Proposal, which shall include, at a minimum, information developed through the CDG Low Income Customer Collaborative, a report on the feasibility of an interzonal CDG credit program, and discussion of the other options to encourage and support low-income customer participation discussed above. That Proposal will be filed for public comment followed by Commission consideration and action.[13]

Despite these clear intentions by the Commission to prioritize low-income customers in the development of CDG, the barriers to equitable access to CDG persist, stymying expansion of the CDG market more broadly and limiting the ability of the market to actualize the promised affordability benefits and opportunities for LMI households and environmental justice communities to participate in the clean energy market. The barriers to LMI and environmental justice community participation in the clean energy community are well understood and have been exacerbated by the rapid transition from net metering to VDER compensation and the resulting uncertainty and confusion in the solar market, the limitations on values that are currently being considered in the value stack (where a component or adder for CDG projects serving low-income households is not under consideration), inadequate NY-SUN incentives for development in some parts of the state that pre-date VDER, the lack of consolidated billing for CDG subscribers, and ongoing interconnection challenges. We believe these barriers are well understood and their solutions within reach.

[11] CDG Order at 31.
[12] VDER Order at 18.
[13] VDER Order at 140.

II. New York as Compared to Other States

The Aligned Parties recognize the efforts made to date to tackle complex issues relating to access to clean energy for underserved communities and addressing the urgent need to reduce these customers' energy burden. The improved low-income discount programs coming to various utility territories, NYSERDA's Low-Income Shared Solar Program, and the REVitalize grants made to environmental justice communities for community solar development are bright spots to highlight. But in the context of rising utility rates, widening inequality, and a changing climate, it is urgent that we build quickly on these programs and commit real resources to tackle these challenges. To be best in class, New York should look to its peer states for examples of programming and investment that has led, or that we are optimistic will lead, to positive results.

- Colorado is an example of a state that has sought to deploy community solar as a means to provide greater equity in clean energy availability. Through a global settlement reached in 2016, stakeholders worked to address the fact that low-income customers had contributed approximately $71 million into the state's clean energy fund, but did not have access to direct clean energy benefits. Among other steps, over the three-year agreement period from 2017-19, low-income Xcel customers will be guaranteed access to up to 20 MW of new solar capacity, including 4.5 MW of dedicated community solar annually; up to 5.25 MW of additional utility-offered low-income community solar; and up to 300 kW of rooftop solar systems.

- California shines as a state that has invested significant resources to ensure equitable participation in solar programs.

    - The pioneering California Multifamily Affordable Solar Housing (MASH) Program and its sister program, the Single-Family Affordable Solar Homes (SASH) Program, were financed using 10 percent of the overall $2.2 billion budget from the ratepayer-funded California Solar Initiative. Over the past nine years, California has directed over $162 million in public funding toward rooftop solar installations for low-income families under the SASH program and installed arrays for more than 7,000 homes. Multiple factors account for the success of this program, but one important factor is the availability of a rebate of $3.00 per watt.

- As of July 2017, nearly $86 million has been awarded in the form of up-front rebates for solar projects on multifamily affordable homes under the MASH program, spurring the construction of almost 400 solar arrays on multifamily properties and serving nearly 11,000 tenants. The MASH program is closed, however the latest incentive levels were set at $1.10 per watt for arrays serving a building's common load, non-VNM tenant load, or tenant load via VNM, where the tenants received less than 50 percent of the benefit. A rebate of $1.80 per watt was available for arrays where at least 50 percent of the PV kwh value is allocated to the tenant, with some adjustments if the tenants receive utility allowances.

- In December 2017, the California Public Utility Commission approved a new multifamily solar program: Solar on Multifamily Affordable Housing (SOMAH). Similar to MASH, the SOMAH program will use up-front rebates to reduce the cost of installing solar, but requires that the systems provide direct economic benefits to tenants. It is funded by the California Climate Investments fund (cap-and-trade revenues). Available funding for the program is set at up to $100 million per year. The program is expected to be up and running by summer 2018 and will provide incentives until December 31, 2030 for qualified deed-restricted multifamily properties. In the first phase of program implementation, rebates are set at varying levels to account for the ability of a project owner to take advantage of tax credits, and to provide added incentive to ensure tenants benefit directly. This table, taken from the CPUC's order, outlines initial rebates under SOMAH:

TAX CREDITS		$ per AC Watt INCENTIVE	
ITC	LIHTC	Tenant	Common Area
No	No	$ 3.20	$ 1.10
Yes	No	$ 2.25	$ 0.80
No	Yes	$ 2.25	$ 0.80
Yes	Yes	$ 1.60	$ 0.60

http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M201/K125/201125355.pdf

- The Illinois Solar for All Program has yet to be implemented, but stakeholders are optimistic that, with approximately $146 million of available funding now and anticipated sustained funding over time, the program will provide meaningful solar benefits to low-income households throughout the state. In the first year of the program, the Illinois Power Agency plans to allocate $30 million to the IL Solar for All program each year for the first three years of the program, with funds supporting rooftop, community solar, and nonprofit and public facility solar projects. Similar levels of funding are expected to be available for subsequent years until the ultimate renewable energy targets under the IL RPS are reached in 2030. The following table, taken from the IL Power Agency's long-term renewable resources procurement plan, illustrates the annual budget plan for this program.

Table 8-3: Delivery Year 2018-2019 Illinois Solar for All Funding Allocations

Funding Source	Low-Income Distributed Generation Incentive	Low-Income Community Solar Project Initiative	Incentives for Non-Profits and Public Facilities	Low-Income Community Solar Pilot Projects
	22.5%	37.5%	15%	25%
RERF	$4,500,000	$7,500,000	$3,000,000	$5,000,000
Utility	$3,000,000	$5,000,000	$2,000,000	
Total	**$7,500,000**	**$12,500,000**	**$5,000,000**	**$5,000,000**

Plan filed for Illinois Commerce Commission approval December 4, 2017

III. General Comments on the Staff Report

We were glad to see that the Staff Report acknowledges that CDG has the potential to make up 50% or more of the solar market by 2020, as well as describe the host of benefits and opportunities that community solar can offer as compared to traditional rooftop solar, particularly for LMI households that have historically faced barriers to participation in clean energy development. The Staff Report also calls for "near-term interventions" in the LMI market segment given these barriers, which have been extensively identified by previous low-income collaboratives as well as in the Working

Group. The need for near-term intervention does not mean that the LMI CDG market is inherently unsustainable on a longer-term time horizon. Rather, well designed interventions would correct the conditions that have created market failures in this sector, ultimately leading to a robust and self-sustaining LMI CDG market.

The Staff Report includes some important recommendations that we support, as detailed below. However, most of its recommendations for action promote programs that fall outside of the fundamental VDER policy, which is about properly valuing distributed energy resources, and sending the right price signals to the market to incentivize DER development in line with the state's policy goals. The Commission has been clear from the outset of REV that one important component of sending the right price signals and aligning markets to policy goals is to incorporate externalities into the pricing of DER.

All of the proceedings and policies housed within the REV docket, including VDER, can and should lead to actions to implement articulated REV policy goals including affordability, grid resiliency, clean energy development and access for all New Yorkers, energy choice and agency, and climate and toxic air pollutant emissions reductions. However, we observe a misalignment between these broader objectives, presented as key state priorities within the energy sector, and their operationalization into concrete outcomes through specific policies and programs. In particular, the VDER proceeding has yet to result in meaningful outcomes reflective of these goals beyond some grid resiliency and clean energy development *for some*. Despite detailed discussions and proposals put forth in the LMI Working Group, the Staff Report does not include a proposal to realize and operationalize the Commission's articulated policy goals for the LMI community. Instead, the Staff Report offers program ideas outside of the VDER process and the promise of ongoing processes that may or may not result in additional value stack components to reflect the policy goals and externalities related to low-income and environmental justice concerns. While we value the ancillary programs proposed, we believe they are insufficient and suggest that the right guidance from the Commission and course-corrections in the Value Stack, Rate Design, and LMI Working Group are needed to ensure that the Commission's policy goals can be realized and that the barriers to equitable access to CDG can be overcome.

In providing that guidance and course-correction, the Commision should consider the signals that are being sent to the market through the VDER mechanism and the components of the value stack and ensure those signals are not counter to the Commission's environmental, economic, and social policy goals. Otherwise, progress toward the renewed energy vision will continue to elude New York.

The VDER and CDG policies should include concrete measures to account for and incentives to promote economic justice and environmental justice, not as an ancillary consideration but as a fundamental piece of how we remake our energy system under REV. This is in recognition of Governor Cuomo's commitment to providing access to clean energy for all New Yorkers "regardless of their zip code or income" and the reality that LMI households make up 40% of New York's population. On the environmental justice side, the energy sector has imposed significant and longstanding burdens on marginalized communities. This is our opportunity to not only course correct by removing and replacing sources of noxious air and climate pollution but also to affirmatively provide opportunities for participation in the clean energy economy for the same communities that have historically been left behind.

The Staff Report concludes, "the low-income CDG market will need continued attention, including ongoing assessment of the effectiveness and impact of approaches that are implemented, and further development of efficient, impactful and novel approaches." We agree. While we are encouraged about the potential for low-income CDG support via the Staff's recommendations, we are discouraged by the apparent lack of urgency or firm schedule for action on these issues to ensure equity and accuracy within REV.

IV. Staff's Proposed Bill Discount Pledge Program

We are very supportive of an approach that allows customers receiving bill discounts through a utility assistance program the option to use that money for participation in a CDG project and thereby directly financially support, and benefit from, clean energy generation. The inclusion of consumer protection provisions that would require the same or lower overall electricity bills for participants should they choose to pledge their discount to a CDG subscription payment is critical as are other accountability measures to prevent predatory practices as a result of the program.

We also agree that an approach that includes partnerships with organizations grounded in communities to facilitate the enrollment of new eligible customers into utility assistance programs will be vital for effective uptake of the bill discount pledge program as well as a benefit in its own right to expand access to utility assistance programs overall. Relatedly, we echo Staff's call for the need to coordinate the marketing of all the various programming available to LMI utility customers and the development of materials and outreach strategies that empower customers with knowledge and tools to make informed decisions about their utilities and their energy use, including accessing

energy efficiency programs because these communities will benefit first and foremost from efficient, healthy, and affordable housing.

We do, however, have concerns over the bill discount pledge program's ability as a standalone strategy to effectively incentivize large-scale enrollment in CDG projects by LMI participants given the following considerations:

- Participation in the bill discount pledge program is limited by the eligibility criteria and vetting process of each utility's assistance program. These programs often have very narrow definitions around income and eligibility markers that leave out a significant swathe of LMI utility customers who may be interested in participating in a CDG project. While it is encouraging that footnote 28 in the Staff Report includes a call for modifications to utility assistance programs that only allow for the enrollment of customers that are active participants in the Home Energy Assistance Program (HEAP), eligibility for the bill discount pledge program would need to be expanded significantly beyond this threshold to have meaningful impacts on the 40% of New Yorkers that are considered LMI, if this is the primary strategy to reach this sector. Providing income verification through NYSERDA for customers that are not currently enrolled in utility assistance programs, and facilitating their enrollment, could also expand participation, but the limitation of utility assistance program eligibility as a threshold would still remain. Therefore, this program on its own is unlikely to reach a significant proportion of LMI utility customers.

- The fact that customers would be required to make up any shortfall between the bill discount pledge amount and the full cost of the CDG subscription likely poses a significant financial hurdle that would discourage program uptake by LMI participants.

- The effectiveness of this type of approach varies greatly by utility territory, particularly given the differences in VDER value stack compensation across utilities, and the applicable bill discount tier for a particular customer. Therefore, the benefits of participating in the program would not be uniform for customers across the state.

- The program will only apply to low income customers that pay their utility bills directly. Providers of affordable housing that are master-metered or submetered cannot access CDG in this manner as a means to manage energy costs and overall affordability for the low income communities they serve.

While we are supportive of the bill discount pledge option moving forward, if structured in a way that addresses the above concerns, we continue to firmly believe that a more robust and broad approach to valuing equity and environmental justice is absolutely necessary. The recommendation put forth in the Aligned Parties Proposal that calls for more robust and substantial valuation to be included in the VDER value stack for developers of CDG projects that enroll and serve LMI customers and the LMI subscribers in those projects remains the logical and preferred approach, absent a similar enduring and additional incentive being provided from a separate funding source.

The Aligned Parties have offered a pathway for including a low-income component in the Value Stack. Our recommendations include a clear rationale for such a component, a process for study to quantify this value, and a transitional credit to ensure timely implementation in Phase 1.[14]

The Commission explicitly stated that special consideration for projects serving LMI off-takers would be included in VDER Phase 1 implementation:

> "To help overcome additional financial barriers for low-income customer participation in CDG projects, during the implementation phase for VDER Phase One tariffs, consideration will be given to other options to incentivize and encourage low-income customer participation in CDG, including tailored approaches for CDG projects for which low-income customers compose a majority of off-takers."[15]

If the Commission will not support the inclusion of economic and environmental justice in the Value Stack, despite the Aligned Parties explanation of the rationale for doing so, then alternative approaches such as an estimated value similar to the MTC or an additional adder outside of VDER, should be immediately put on the table for consideration given the actions and programs to date are insufficient.

V. NYSERDA No-Cost Subscription Program

We support NYSERDA's forthcoming program to provide no cost community solar subscriptions to low-income utility customers. As outlined in our Aligned Parties

[14] See Aligned Parties Proposal at 7-14.
[15] VDER Order at 140.

Proposal, we view NYSERDA's Low-Income CDG Solicitation as a critical stop-gap intervention to ensure that participating low-income families experience bill savings. If combined with other important interventions, as outlined in the Aligned Parties Proposal and in these comments, the Low-Income CDG Solicitation has the potential to assist with scaling-up programs that can reduce energy burdens for the most vulnerable residents in the State. In terms of implementation of NYSERDA's solicitation for community solar projects to participate in the program we strongly support the consideration of factors beyond pricing that maximize the potential for co-benefits in the development of these projects. This includes geographic diversity, varied project sizes, community ownership opportunities, and local workforce development. We strongly recommend that NYSERDA also prioritize contracting with community solar projects that provide affordable pathways to continued participation in the project by the low-income customer beyond the term of the NYSERDA program. We appreciate NYSERDA's willingness to accept these and other recommendations, and look forward to continued communication with NYSERDA as it prepares to implement this program.

VI. Loss Reserve

We strongly support the creation of a loss reserve, as recommended by the Staff Report, that would provide a credit backstop and enhancement for CDG projects that seek to include LMI customers as participants and/or owners.

The loss reserve is an idea that gained support from most parties in the LMI Working Group because it is an avenue to address one of the key barriers to LMI participation in CDG. The Aligned Parties included detailed recommendations as to the structure and funding of such a reserve as well.[16] We urge immediate action on this item, with a clear directive by the Commission for a date certain by which this reserve will be in place.

VII. Environmental Justice Location Incentive

We applaud the inclusion of environmental justice considerations in the Staff Report and the acknowledgment of the twin injustices of disparate impacts of the energy sector on low-income and communities of color coupled with a structural lack of access within these same communities to the full benefits of the transition to cleaner sources of energy.

[16] See Aligned Parties Proposal at 22-23.

The Aligned Parties Proposal puts forth a comprehensive approach for accounting for environmental justice impacts within the VDER scheme that would provide the full value of environmental, economic, and social benefits and avoided costs to projects that serve environmental justice communities and LMI households within those communities. Our proposal addresses the four areas for which the Staff Report seeks input, namely (1) Identifying the appropriate screening tools or criteria to target an Environmental ("EJ") incentive; (2) Calculation of the appropriate value of an EJ incentive; (3) How such an incentive would be distributed between CDG developers and customers; and (4) Identifying a source of funding including whether it should be available only within the existing annual 2% bill impacts cap in the VDER transition order.

While it appears we are in agreement with Staff that a more in-depth process is needed to determine the full value of environmental justice impacts within the VDER value stack as well as the appropriate EJ screening/mapping tool for more targeted support, we recognize that this type of process and analysis will take a significant amount of time and resources at a moment when the CDG market cannot afford to lose momentum. Additionally, after four years of REV and nearly three years after the CDG order, virtually no renewables benefit has reached LMI and EJ communities. We therefore propose the development of a robust demonstration program that would support and usher through a portfolio of demonstration projects in this interim period. In similar fashion to the NYSERDA 'Solar for All' program, demonstration projects would seek to encourage geographic diversity, varied project sizes, community ownership opportunities, and local workforce development. This would align especially well with NYSERDA's REVitalize program that is providing early stage capacity building and project support for clean energy initiatives that serve environmental justice communities.

In addition, we continue to champion the need for a transitional value stack component for projects that serve low-income and environmental justice communities as a more precise analysis is underway. We proposed an MTC-like component of 6 cents per kilowatt hour that would serve as a placeholder for incentivizing projects that meet New York's environmental justice policy goals. We also proposed specific criteria for projects seeking that compensation. Implementing such a value stack component would demonstrate the Commission's commitment to addressing barriers for some of the most vulnerable and energy burdened communities in the state.

If a placeholder or a value stack component, in general, is unacceptable to the Commission, then an alternative approach put forth by the Commission to meeting REV's clean energy for all objectives is necessary and well past due for implementation.

While it was encouraging to see environmental justice considerations raised in the Staff Report, we are deeply concerned about the lack of clarity as to the status of this work and in what forum it will continue to be housed in light of the apparent dissolution of the LMI Working Group. It was understood by many participants in the LMI Working Group that such issues would be taken up by the Value Stack Working Group, particularly those that have a nexus with the quantification of components within the value stack. We see the full valuation of all economic and environmental justice benefits and avoided costs as very much related to the Value Stack conversation and therefore have participated in meetings of the Value Stack Working Group, including attending presentations on energy and environmental justice by Professor Shalanda Baker of Northeastern University and Professor Diana Hernandez of Columbia University. Participants in the recent VDER meeting on this issue were left with the impression that environmental justice issues that went beyond the quantification of costs and benefits associated with air pollution would not be addressed within the Value Stack Working Group. We are therefore left with little understanding of where the further processes and analyses prescribed in the Staff Report on EJ valuation will take place.[17]

We know there are other quantifiable benefits to be studied and seek the opportunity to include them within the Value Stack and the Benefit Cost Analysis. We request that the Commission provide clarification on where, when and how research on these values will be undertaken and results considered. This will mitigate further confusion and ensure environmental and economic justice issues are not marginalized in REV. We further recommend that in the interest of streamlining this process, the Commission and NYSERDA dedicate resources to studying and quantifying these externalities. We believe the State has resources to dedicate to research to serve the VDER Working Groups, and REV and LMI issues. As of yet, none of these resources have been dedicated to studying the externalities that are of most concern to low-income and environmental justice communities -- the same communities that lack resources to fund studies of their own. In the interest of a fair process, we urge that research resources be made available to study these externalities so that they can be accurately valued within REV including within the Benefit Cost Analysis framework. Further, we strongly emphasize that allocating resources and carrying out this research should be done quickly, so that this information is available as VDER and other REV proceedings

[17] The Value Stack Working Group has indicated that it intends to take up Environmental issues in July 2018, and some of the Value Stack Working Group members, including some members of the now disbanded LMI Working Group, have formed an independent subworking group to work on Environmental and Environmental Justice valuation issues in preparation for taking up these issues in July 2018. This group does not have the capacity or funding to engage in the type of analyses needed.

continue during 2018. In particular, the Value Stack Working Group is set to address these questions once again in July.

VIII. “Other Work Required”

As part of the “value stack” for eligible distributed generation, the Commission authorized a market transition credit (MTC) for certain projects. Approval of the MTC recognizes the fact that the bill credits from the value stack as currently configured are likely to be lower than the full retail rate previously available under net metering for many community distributed generation project subscribers and without an MTC the market would be disrupted. The Commission has not agreed to apply the MTC to master-metered building accounts (whether tenants are sub-metered or not). However, the Commission did recognize that tenants in these buildings cannot participate in community DG projects and instructed the Department of Public Service Staff to evaluate strategies to address this concern. The easiest solution would be to allow the MTC for master metered multifamily buildings. An alternative would be inclusion of low income and environmental justice values in the value stack to enable multifamily buildings providing affordable housing or located in environmental justice communities to receive just compensation for providing access to renewable energy for their tenants, which also would help maintain housing affordability for these communities.

In conjunction with extending the MTC to master metered buildings or providing low income or environmental justice value stack components to multifamily buildings, the Commission could also consider provisions that require some of the benefits pass along to tenants as bill credits if sub-metered, or via maintaining affordability if not sub-metered. All too often, energy affordability is viewed as distinct from housing affordability when energy should be seen as part of housing affordability. A low utility bill is meaningless if rent is unaffordable. Participation in price stabilizing or price lowering CDG can lower housing costs and help maintain affordable housing. The unavailability of the MTC to master-metered buildings is a disincentive to CDG participation by affordable housing providers and creates further inequity between income classes.

IV. Further Process Recommendations

The Aligned Parties appreciated the formation of the Low-Income Working Group. We believe it is important to continue to have a forum in which to have wide-ranging discussions focused on low income issues, and the potential to address them through

VDER. However, there was a lack of clarity about how the work of this group would affect the wider VDER process. We request that the LMI Working Group be restarted, as a forum to consider LMI issues and propose solutions. If this is to be effective, however, there must be better integration of the LMI Working Group with the process of other Working Groups. We recommend that the chairs of the Rate Design and Value Stack Working Groups attend meetings of the LMI Working Group, and that the chair of the LMI Working Group attend meetings of the Rate Design and Value Stack Working Group, so that the LMI issues are not siloed from core VDER Phase II process. We further recommend that the Commission provide clear direction to those Working Groups that ideas proposed by the LMI Working Group be taken up in a timely manner. Once again, if the decision by the Commission is that such considerations will not be addressed in the VDER Working Groups, an actionable alternative should be put in place immediately to avoid further unfruitful meetings.

Recent experience provides some guidance about how this process would work best. The concept of an environmental justice value stack component was conceived in the LMI Working Group and has been taken up by Value Stack for consideration. This suggests a useful metric for that group: If injections from DER can be shown to predictably and quantifiably reduce the social cost of externalities to society at large or to specific kinds of customers, this can be considered in the Value Stack discussion. This could serve as a principle for the kind of policy proposals which could be made to that Working Group. Rate Design may be the best forum to address customer-based questions. We request that if the LMI Working Group group is re-formed, clear guidance be given both to the LMI Working Group and to the Rate Design and Value Stack Working Groups to ensure that the LMI recommendations will be considered in the VDER process in the appropriate venue.

We are ready to dig back into the unresolved work of integrating low-income and environmental justice values into the VDER process, but we request that the Commission provide clear guidance to Staff about what kinds of values are appropriate for consideration within this process. We recommend that the Commission direct the Staff and NYSERDA, as appropriate, to invest in the research necessary to accurately value externalities that impact low-income and environmental justice communities and to quantify the costs and benefits associated with alleviating them, including a clear articulation of broader policy goals that can and should be supported through the VDER mechanism. Further, we recommend that the Commission direct Staff and NYSERDA, as appropriate, to consider policy-based transitional value stack components, much like the MTC, which was both targeted toward certain types of customers and designed to

ensure New York would make progress on its policy goals while more accurate evaluation was in the works.

X. Conclusion

We appreciate the efforts of the Staff and all participants in the LMI Working Group that contributed to the Staff's Report. The report concisely outlines the barriers and challenges to ensuring the benefits of CDG reach LMI customers and environmental justice communities. We are grateful that the Staff and the team at NYSERDA diligently sought to create a process and space for working collaboratively to reach solutions to overcome these complex barriers.

The recommendations included in Staff's Report are a positive step toward an overall strategy to address the barriers to meaningful access to CDG for low-income communities in New York. However, on their own Staff's recommendations are insufficient to get us where we need to be. A comprehensive strategy for overcoming the challenges and barriers will include all of the recommendations outlined in the Aligned Parties proposal. Moving forward, we agree with the conclusion in the Staff's Report. "The Commission and parties will need to be strategic, patient, and diligent, and commit to investing time and resources, if we hope to make a meaningful impact on the penetration of solar in low-income communities."

The Aligned Parties stand ready to continue investing time and energy toward making meaningful progress. Our contingent includes environmental justice organizations appointed by Governor Cuomo to the State's Environmental Justice and Just Transition Working Group, a forum where State agency leaders are expected to be held accountable to environmental justice concerns. In the spirit of the Governor's recognition of these organizations and their work with New Yorkers who have been neglected by the energy economy for too long, we ask that the Commission, the Staff, and other participants take into consideration the deep investment of time, energy, and expertise by organizations serving the most impacted communities in New York. In the near-term, we request that transitional components be added to the value stack to ensure immediate compliance with the spirit of previous Commission orders and a transparent process and clear Commission guidance for accurately valuing and incorporating permanent environmental justice and LMI components in the Value Stack. We also request a process for taking up the remaining recommendations in our consensus report.

Respectfully submitted,

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March 5, 2018

December 1, 2017

The Honorable Kathleen H. Burgess
Secretary
New York State Public Service Commission
Empire State Plaza, Agency Bldg. 3
Albany, NY 12223-1350

Re: Case 15-E-0751 – In the Matter of the Value of Distributed Energy Resources

Matter 17-01278 In the Matter of the Value of Distributed Energy Resources Working Group Regarding Low and Moderate Income Customers

Dear Secretary Burgess,

This proposal is filed on behalf of the Aligned Parties to provide a suite of recommendations for consideration by the Low to Moderate Income Working Group and Department of Public Service Staff for inclusion in its forthcoming report on LMI participation in Community Distributed Generation per the Public Service Commission's directive in its March 9, 2017 Order on Net Energy Metering Transition, Phase One of Value of Distributed Energy Resources and Related Matters.

Respectfully submitted,

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Adam Flint, Binghamton Regional Sustainability Coalition
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Recommendations to the LMI VDER Working Group from Aligned Parties

Table of Contents

Table of Contents **1**

Introduction **2**

Proposal Summary and Outline **3**

I. New Value Stack Components 3

A. Low-to-Moderate Income Customer-Based Component 3

B. Environmental Justice Project-Based Component 4

C. Transitional Values and Definitions 4

II. Recommendations for NYSERDA & NYGB 5

A. Support and recommendations for NYSERDA Community Solar Initiative 5

B. Complementary NYSERDA and NYGB Programming 5

III. Local Community-based Generation through Community Choice Aggregation 6

IV. Market Transformation Adders 6

Detailed Recommendations **7**

I. New Value Stack Components 7

A. Low- and Moderate Income Value Stack Component 8

B. Environmental Justice Value Stack Component 10

C. Transitional Values and Considerations 12

II. NYSERDA and New York Green Bank Programs 14

A. Support and additional recommendations for NYSERDA's Low-Income CDG Solicitation 15

B. Complementary Programs 19

1. Support for Community Solar Pilot Project Funding 20

2. Improved Community Solar Predevelopment Assistance 21

3. Develop LMI CDG Direct Credit and Project Support Mechanisms 22

III. Local Community-based Generation through Community Choice Aggregation 23

III. Market Transformation Adders 24

Conclusion **26**

Appendix A **28**

Introduction

The goal of New York's Reforming the Energy Vision's (REV) Value of Distributed Energy Resource (VDER) proceeding is to encourage development of distributed energy resources (DER) in a manner beneficial to both consumers and the utility grid while contributing to the state's clean energy targets. Low and moderate income (LMI) populations are not yet being served at scale by the growing clean energy economy. They, in fact, continue to suffer disproportionately from polluting energy sources and unaffordable utility bills. Acceleration of community distributed generation (CDG) without deliberate and proactive inclusion of low-income and environmental justice (EJ) communities would be inequitable and a missed opportunity to address the specific needs of these populations.

It is impossible for the state to meet its clean energy goals without the active participation of the over 3 million LMI households in the state, representing approximately two fifths of the state's population. To exclude such a large portion of the state's residents from the benefits of clean energy resources, while they have paid into the systems benefit charge that is supporting the development of these resources, is both unfair and inconsistent with the goals of REV.

The discussion in the LMI VDER Working Group has been laudable for the frank and open dialogue and the respect parties have shown one another despite profoundly different views, and has likewise served to identify areas of convergence among the parties. This document expresses the policy recommendations of several parties who have aligned through the discussions in the Working Group ("the aligned parties"[1]). The barriers preventing high levels of participation and avenues for energy self-determination for LMI households and EJ communities are many. Only through a combination of approaches can we overcome them. The following suite of policy recommendations are designed to ensure equitable distributed generation opportunities for New York's most vulnerable populations that, coupled with strong similar energy efficiency policies and funding, will ensure comprehensive clean energy access for all .

The recommendations below are informed by a longer-term vision of community engagement, community ownership, and local job creation in addition to the clear environmental, health,

[1] The Aligned Parties include: Alliance for a Green Economy, Association for Energy Affordability, Azure Mountain Power, Binghamton Regional Sustainability Coalition, Citizens for Local Power, Ecogy Solar, Green Street Solar Power, Natural Resources Defense Council, New York City Environmental Justice Alliance, New York Lawyers for the Public Interest, Pace Energy and Climate Center, ProjectEconomics, PUSH Buffalo, Solstice, Vote Solar, WE ACT for Environmental Justice

and financial benefits clean energy resources provide. The current tools for reaching our state goals, both environmental and economic, are imperfect. The proposals below help make these imperfect tools more equitable and enable all New Yorkers to both contribute to, and benefit from, the transition to a clean economy.

Proposal Summary and Outline

In the interest of including a concise summary of our recommendations, we have put together a quick outline of the key components. Please note that there is much detail both substantively and with regard to context, framing, and goals that is not captured in this outline section but is elaborated upon within the various sections of this document.

I. New Value Stack Components

An LMI Customer-Based component and an Environmental Justice Project-Based component should be established as permanent value stack components, rather than "adders." In addition, transitional values and definitions should be implemented immediately for these new value stack components with a longer-term valuation process also put in place.

A. Low-to-Moderate Income Customer-Based Component

- Available for each low-to-moderate income customer a project subscribes
- Included in the value stack on a per kilowatt hour basis
- A customer is designated low-to-moderate income and eligible if household annual income is at or below 80% of the Area Median Income (AMI) or State Median Income ("SMI"), whichever is greater.
- Any meter in an affordable multifamily building (includes common load meters or master meter) is eligible.[2]

Key Goals: Long-term energy *affordability* for LMI utility customers and *access* to clean energy for those currently left out of the market

[2] Affordable Multifamily Buildings defined as (1) government regulated buildings with rent levels specified in contract or regulatory agreements between the regulating entity (e.g. HUD, NYSHCR, or NYCHPD) and the property owner; or (2) non-regulated housing whose rent levels for at least 25% of units (as confirmed by their rent rolls) meet the HUD definition of affordability of rent as no more than 30% of the monthly income for households with incomes not greater than 80% of Area Median Income (AMI).

B. Environmental Justice Project-Based Component

- Available for all off-takers of a designated Environmental Justice Project
- Included in the value stack on a per kilowatt hour basis
- Project is designated an Environmental Justice Project by meeting *any one* of certain outlined criteria
    - Is sponsored by a community-based organization located in and serving an environmental justice community; or
    - At least 50% of the project's subscribers, owners, members are LMI customers that live in an EJ community; or
    - The project Is located in an EJ community and at least 50% of the project's subscribers, owners, members, are LMI customers not necessarily living in an EJ community.

Key Goals: *Access* to clean energy for individuals left behind in current transition, *equity* in the deployment of renewable energy particularly for the most heavily burdened communities, *reductions in human health hazards* in burdened communities.

C. Transitional Values and Definitions

A transitional value that would support the development of projects that serve LMI customers and EJ communities should be determined and implemented while longer-term value is being determined.

- Transitional value for both the LMI value stack component and the EJ value stack component should be set at $.06/kWh.
- The transitional value will be partially stackable for the two value stack components such that if a project demonstrates eligibility to receive both the LMI and EJ components they will receive value of $.09/kWh.

A transitional definition of EJ communities should be used while the process for developing a more targeted screening tool indicators is underway.

- NY Department of Environmental Conservation's Potential EJ Areas definition and mapping tool can be used as a transitional definition of eligible EJ communities.
- This can also be used as a starting point for the development of a more targeted screening tool with additional indicators to create a more targeted definition and accompanying map of EJ communities for the purposes of the value stack component.

The implementation of transitional value and definitions will take place while a strategy for longer-term implementation, both related to quantification of value, definitions, methodologies, is taking place. This will require additional research support and analysis, likely on the part of the Value Stack Working Group, agencies including NYSERDA, DEC, and the convening of other relevant stakeholders and experts. Specifically, additional research and quantification is needed around the following:

- Development of screening tool and indicators to identify targeted environmental justice communities for the purposes of the EJ value stack component.
    - We recommend starting with the DEC Potential EJ Areas tool and definition and utilize other existing and soon to be underway models and processes including CalEnviroScreen and New York City's City EJ community identification process pursuant to Local Laws 60 and 64.
- Establishment of a methodology to determine nexus between the development of a particular project and its potential to offset use of local polluting energy infrastructure, such as a peaker plant, in an EJ community.
- Calculation of appropriate long-term value for EJ, LMI, and affordable multifamily building value stack components to replace the interim transitional value.

II. Recommendations for NYSERDA & NYGB

A. Support and recommendations for NYSERDA Community Solar Initiative

NYSERDA should move forward with the implementation of the Low Income Community Solar Initiative and include within the solicitation components and criteria that would leverage maximum community and customer benefit as detailed further in this proposal.

B. Complementary NYSERDA and NYGB Programming

NYSERDA and NYGB should develop programming that would be complementary to NYSERDA's Low Income Community Solar Initiative by providing specific supplementary support to overcome other identified barriers to development of CDG that serves LMI customers and EJ communities. This includes 3 key programmatic recommendations:

- Provide financial support for the development of pilots throughout New York to test deployment of CDG in a variety of geographies and utility service areas, project sizes and capacities, and that use different business and service models to collect data and better understand how to serve LMI and environmental justice communities through CDG.
- Expand and streamline pre-development assistance to include the full range of pre-development costs and to allow for start-up funding at contract signing

- Develop LMI CDG credit and project support mechanisms to facilitate low-cost project finance and no-credit-score customer enrollment. Examples include credit enhancement mechanisms such as a loan loss reserve.

III. Local Community-based Generation through CCA

A model for communities interested in Community Choice Aggregation (CCA) that allows for integration with a local clean energy project would support the development of local energy for communities that choose to participate in a CCA program and creates a streamlined mechanism to facilitate the flow of benefits from clean distributed resources to customers.

IV. Market Transformation Adders

There are a range of additional social and economic benefits and goods that CDG can support such as local hiring and workforce development as well as the use of brownfields and other under-utilized space. While this may not be best captured within the value stack scheme, we seek to have these benefits and goods studied and accounted for in state programs and policy.

Detailed Recommendations

I. New Value Stack Components

The aligned parties recommend two new permanent value stack components: a low-to-moderate Income component, and an Environmental Justice component. The value of each of these components would be added to the value stack for CDG participants and sponsors who meet the eligibility criteria outlined below.

The Working Group has been discussing proposals for "adders" to the VDER Value Stack, which is the compensation mechanism through which customers are paid for the generation of their portion of a CDG project. Rather than using the term "adders" which could imply a value that is outside or somehow separate from the value stack, the aligned parties recommend the use of the term "value stack component" (VSC) to clarify that our proposed values are to be incorporated into the value stack as important, distinct, and permanent value streams that should flow to customers to compensate them for the avoided societal and utility costs achieved through their participation in a CDG project. In Section VI of this document, we propose some market transformation "adders" that the Commission and NYSERDA could use to overcome near- and mid-term barriers to the emergence of functioning DER markets that serve LMI households and EJ Communities.

The value-stack components discussed in this section are intended to reflect enduring societal value associated with the delivery of DER-related products and services to LMI customers and EJ communities. The purpose of the value stack components is to internalize and codify existing benefits to society and the electric system from the delivery of these services to these specific customers and locations.

The LMI component and the Environmental Justice component should be stackable, like all other components of the VDER value stack. Each of these values are meant to internalize different avoided ratepayer and societal costs or represent different benefits to society and ratepayers. While value stack components may be launched as reasonably-estimated components of the Value Stack, the objective is to focus effort on the improved valuation of these value stack components through more in-depth analysis and quantification while using a transitional value to support a market transition on a more expedient timeline.

We also recognize, as has been raised by others in the LMI Working Group, that even with in-depth research and analysis there will be some aspects of the valuation of these components

that do not lend themselves to highly precise quantification. Therefore, we recommend that the longer-term valuation process be guided by the many existing studies regarding valuation of such social and economic benefits as a starting point but with an understanding of the very real possibility that undervaluation could occur due to the challenging nature of the benefits we seek to capture. Efforts should be made to avoid such an outcome.

Because both of these components will require research in order to set an appropriate value, and such research and valuation will take time, in the interim we propose transitional values to be implemented immediately. These transitional values should remain in place until the more involved process of determining value for long-term implementation is completed. This transitional phase is necessary in order to balance the need for more precise valuation of these value stack components with the urgency of deploying CDG in and for underserved areas and customers. In recognition that these transitional components will not represent an accurate reflection of the avoided costs and realized benefits, we propose that the transitional LMI and Environmental Justice components should be only partially stackable at this time. This is detailed more below.

A. Low- and Moderate Income Value Stack Component

The LMI component will internalize the avoided ratepayer and social costs related to high energy burden or housing costs of low-income households, as well as the affirmative social value of providing DER-related services and products to LMI customers. Note that we include housing costs in addition to energy burden because many low-income households do not directly pay for all of the energy costs for the buildings in which they live, but instead pay for some or all of these expenses as part of their rent.[3]

There are many ratepayer and social costs associated with unaffordable energy bills including, but not limited to, shut-off costs, uncollectibles, bill assistance programs, increased homelessness, and healthcare costs. These costs can be avoided through participation in a CDG project, where those projects provide significant bill savings and price stability to reduce energy burden and volatility.

We recommend a value stack component for low- and moderate-income households and affordable multifamily buildings. The LMI value stack component should be included in the value stack for all generation allocated to LMI households.

[3] Affordability of housing is closely tied to energy affordability since energy costs are a significant expense for affordable multifamily housing providers and reductions help maintain healthy, safe and affordable housing. In contrast, higher energy expenses for housing providers can result in increased rents even if energy costs for individual apartments are offset or lowered.

For the purposes of this value stack component, the definition of a LMI household should be the same as that used by NYSERDA to target CEF investments and align with state and federal energy and housing programs: households that have an annual income at or below 80% of the Area Median Income (AMI) or State Median Income (SMI), whichever is greater. Additionally, any meter in an affordable multifamily building should be eligible to receive the LMI component. For the purposes of eligibility, affordable Multifamily Buildings should be defined as (1) government regulated buildings with rent levels specified in contract or regulatory agreements between the regulating entity (e.g. HUD, NYSHCR, or NYCHPD) and the property owner; or (2) non-regulated housing whose rent levels for at least 25% of units (as confirmed by their rent rolls) meet the HUD definition of affordability of rent as no more than 30% of the monthly income for households with incomes not greater than 80% of Area Median Income (AMI).

The research to determine the appropriate value of the LMI component does not currently exist. Therefore, the aligned parties recommend that as part of the VDER Phase II proceeding, DPS or NYSERDA should commission the necessary research to determine the appropriate value of the avoided costs associated with reducing energy burden. The scope and methodology of this study should be developed in collaboration with stakeholders, and it should include consideration of whether different tiers of value should be assigned to LMI households, taking into consideration the differences in area median income and cost of living in different parts of the state.

While this research is pending, we propose that the Commission immediately approve a transitional LMI component that is available for all LMI households and all meters in affordable multifamily buildings. The value of this proposed transitional component, as well as other transitional considerations is discussed below. We understand that the transitional component value may differ significantly from the value of the LMI value stack component that will be arrived at through research. However, we think this inherent inaccuracy is outweighed by the costs of not including any transitional component. The vast majority of solar in New York is owned by and benefits people with property and financial means. Yet all New Yorkers pay into funds to incentivize this renewable energy. LMI households contribute a disproportionate amount of their income toward these subsidies. Creating policies that enable equitable access to those benefits for LMI households is the right thing to do. It will also further the Commission's goal of increasing access to CDG for LMI households and provide a path for realization of the Commission's codified goal of reducing low-income energy burden and giving low-income households more control over their energy future.

The Commission has already recognized the value of transitional credits through its establishment of the MTC in the VDER Phase I Order. Implementing the VDER value stack

without an LMI value component would unjustly perpetuate inequities and delay the development of DER markets to serve LMI customers.

B. Environmental Justice Value Stack Component

The current development models for renewable energy in New York may in fact both conceal and exacerbate environmental justice impacts. The addition of new variable renewable resources to the state's energy mix does not address the problem of localized impacts from criteria pollutants or the other impacts of grid operation and energy generation on historically burdened communities. Unless New York appropriately incentivizes low income participation and compensates for environmental justice costs, New York may increase both inequality and localized toxic burden in its efforts to meet its climate and emissions goals.

There is a well documented correlation between the siting of polluting infrastructure that produces harmful localized emissions and racial and socioeconomic demographic markers. Low-income communities and communities of color are statistically more likely, by a significant margin, to bear the brunt of more polluted air.[4] It is therefore imperative that these disparate impacts are not perpetuated or exacerbated by new energy policies, but rather are redressed and rectified for a more equitable and just outcome. On the other hand, DER services and technologies offer hope for addressing some energy environmental injustice, if they are deployed by and for environmental justice communities.

The inclusion of an environmental justice (EJ) value stack component will encourage renewable energy development such that the benefits of CDG reach those communities and individuals who have been unjustly burdened by our current energy generation and distribution systems. These same communities, namely environmental justice communities, are most likely to once again be marginalized in the transition to a clean energy economy, unless New York adopts policies to reverse these trends. The benefits we seek to capture in the EJ value stack component include improved health outcomes, reduced air pollution levels, employment opportunities, local business development, and housing cost reductions that work against the pressures of displacement. These are benefits associated with avoiding the costs of inequitable access to the renewable energy economy and avoiding the inequitable impact of the current energy system's externalities on low-income communities and communities of color.

The EJ component would be added to the value stack of any offtaker of a designated "Environmental Justice CDG Project." In order to qualify as an Environmental Justice CDG Project, a project must meet one or more of the following criteria:

[4] See, e.g., "People in Poor Neighborhoods Breathe More Hazardous Particles", *Scientific American,* Nov. 2012, available at https://www.scientificamerican.com/article/people-poor-neighborhoods-breate-more-hazardous-particles/

a. At least 50% of subscribers, owners, and/or co-op members in the project are designated LMI customers and have an address located within an identified environmental justice community; or
b. The project is physically located within an environmental justice community and has at least 50% of subscribers, owners, and/or co-op members in the project who are LMI customers; or
c. The project sponsor is a community-based organization[5] located within and serving an environmental justice community.

We are also interested in the inclusion of a potential criteria/consideration for the EJ value stack component that addresses and supports a core environmental justice principle related to CDG projects supplanting the need for existing or proposed fossil fueled, co-pollutant generating infrastructure that contributes to air pollution in EJ communities and results in disparate health and quality of life outcomes. Displacing the need for energy infrastructure that contributes to air pollution within an environmental justice community may include taking peaker plants offline which may be facilitated by the deployment of battery storage and other peak demand reduction strategies or technologies that can be coupled with a CDG project to more effectively meet this objective. In addition, strategies that can contribute to localized air pollution reduction may also include other non-emitting non-wires solutions that reduce reliance on traditional polluting infrastructure in EJ communities. We recognize the challenges of tying particular projects to displacing the use of particular infrastructure and therefore propose additional research and process through the Value Stack Working Group, along with other relevant stakeholders and experts, to determine how best to develop a mechanism to provide additional value to projects such that the goal of targeted air pollution reduction in EJ communities is meaningfully met.

As with the LMI Value Stack Component, we propose a transitional Environmental Justice Component to be implemented immediately while the necessary methodology and research is developed to determine the long-term value of the Environmental Justice Component. See Appendix A for a detailed description of the research needed to develop the Environmental Justice value for the stack.

For the purposes of identifying environmental justice communities for the implementation of this EJ value stack component, we propose utilizing existing state-level frameworks as a

[5] For the purposes of this proposal, an eligible community-based organization is one that is a member-based organization with membership and board participation (if applicable) that is representative of the racial, ethnic, and socio-economic demographics of the community in which it is located and serves.

transition placeholder approach and commencing a deeper process of research and stakeholder engagement to develop a more comprehensive EJ screening tool for identification of EJ communities. See the Transitional Values and Considerations section for more detail.

C. Transitional Values and Considerations

The transitional values are envisioned as an interim solution to bridge the gap until research and proceedings to establish Phase Two Value Stack Components valuation is completed. Without transitional values, development of LMI- and EJ-inclusive CDG will likely not be feasible beyond NYSERDA's programs until sometime in 2019 at the soonest.

Value and Stacking of Transitional Components

We recommend the following transitional components[6]:

- Transitional LMI value: $0.06/kWh for all generation allocated to LMI participants in any CDG project
- Transitional EJ value: $0.06/kWh for all generation allocated to participants of a qualified Environmental Justice CDG Project
    - Criteria related to offsetting of air pollution will not be utilized in the transitional phase in recognition of the longer-term process to determine the application and mechanics of such a criteria.
- The transitional LMI adder and transitional EJ adder can be partially stacked, for a total of $0.09/kWh

Transitional Definition of Environmental Justice Communities

As the transition placeholder approach, we propose utilizing the New York Department of Environmental Conservation (DEC) criteria framework for the identification of "Potential Environmental Justice Areas"[7] for the purposes of identifying environmental justice impacts and concerns within the environmental permitting process. Potential Environmental Justice Areas are 2000 U.S. Census block groups of 250 to 500 households that have demonstrated one or more of the following demographic markers:

1. At least 51.1% of the population in an urban area reported themselves to be members of minority groups; or
2. At least 33.8% of the population in a rural area reported themselves to be members of minority groups; or

[6] The value of these transitional credits was arrived at by the Aligned Parties through an informal survey of community-based CDG developers who are focused specifically on developing projects to serve LMI households and Environmental Justice communities. Further, we note that Massachusetts has set a Low-Income adder to its solar incentives at $.06/kWh.

[7] http://www.dec.ny.gov/public/899.html

3. At least 23.59% of the population in an urban or rural area had household incomes below the federal poverty level.

This approach to the mapping of Potential Environmental Justice Areas also aligns with Article 10 of the Public Service Law, which dictates analysis of EJ impacts in the siting of major electric generating facilities. This regulation also defines an EJ area based on demographic data indicating the presence of a low-income or minority community. It also establishes the presence of an EJ area if both "reasonably available air quality data" and "health outcome data that have been made available to the public statewide at the zip code level" show the potential for disparities in environmental burden between the community and the county (or in the case of the City of New York, the city as a whole).

There is a recognition that the Potential Environmental Justice Areas and the Article 10 EJ impact analysis would likely lead to a fairly broad definition of EJ communities for the purposes of a VDER EJ Value Stack component and therefore we propose a more in-depth process to identify additional screening indicators that would result in a more targeted EJ identification scheme for longer-term implementation. See Appendix A for more detailed proposal for the development of this screening tool.

Who Receives the Transitional Value

The LMI Working Group had spirited discussions about whether value stack components related to income and environmental justice should be passed in full to customers, or whether developers should be allowed to retain or recapture some of the value through subscription pricing or other mechanisms. The Aligned Parties note that some of this is dictated by the mechanics of VDER. Currently, all components of the VDER Value Stack will flow to customers in the form of bill credits and there is no mechanism through which developers can capture any of that value before it arrives as a credit on the customer's bill. The way a developer can capture some of the value back to support project development and bottom line is through subscription/membership payments from customers who receive the additional value stack components.

The Aligned Parties are interested in exploring, as part of the VDER Phase II Value Stack discussion, whether mechanisms can and should be developed to regulate or otherwise ensure that all or a significant portion of LMI and/or EJ value stack component credits stay with customers rather than flowing eventually to project owners. However, we believe such a decision would be premature now because there is currently little support for project developers to design and deliver projects that serve LMI and EJ customers. Allowing project owners to benefit from the value stream created through these new value stack components may enable projects that would not otherwise be viable and that will benefit LMI and EJ

customers. We hope there will be a strong incentive for developers to pass as much of the savings through to customers as possible in order to attract participation and achieve full subscriptions.

Therefore, for the transitional value stack components proposed above, we do not propose that the Commission regulate how much of those credits can be recaptured by developers. We do propose, however, that projects whose participants receive these LMI and EJ value stack components should be required to report information to the Commission about contract terms and LMI enrollment so that we can all learn about effective business models from the first crop of projects and develop policy informed by experience. This information can then inform further discussion of this topic during Phase II process.

Duration of Components and Requalifying Customer and Projects

In order to provide as much certainty and stability for projects serving LMI and EJ customers as possible, we propose that the LMI and EJ value stack components be locked in at the time of interconnection of the project and that they endure for the life of the project.

Additionally, we proposed that LMI customers' incomes should be verified once, at the time of contract signing and that eligibility should not need to be reverified as long as the customer is an offtaker of that particular CDG project. In the event that a customer switches CDG projects, their income will need to be reverified.

For projects qualifying for the Environmental Justice component, there should be a reverification process every five years to ensure that the project still meets one or more of the criteria for qualifying as an EJ Project. As part of the reverification process, individual customers' incomes need not be recertified

II. NYSERDA and New York Green Bank Programs

In October 2017, NYSERDA presented to the Working Group a concept to address low-income inclusion in community solar projects through the solicitation of no-cost, small CDG subscriptions on behalf of low-income customers. Further, NYSERDA has responded to comments and suggestions raised by parties in the Working Group by providing further detail and clarification about the project through a memorandum dated October 20, 2017 and in an updated filing on November 29, 2017. The Aligned Parties support NYSERDA's Low Income Community Solar Solicitation as clarified through the memo and reflected in the November 29th filing. We see it as a critical first step to ensure that low-income households in New York benefit from the development of CDG. Below, we describe why we support the solicitation, and

we provide additional suggestions and feedback for further improvements during the solicitation process to maximize the investment of ratepayer funds.

While we strongly believe that NYSERDA's solicitation should provide an immediate and welcome opportunity for low-income participation in CDG, we also strongly believe that additional NYSERDA and Green Bank programs will be necessary to ensure that the long-term, scalable CDG opportunities are there for LMI households and environmental justice communities. Below, we outline several additional programs as a comprehensive approach to achieving equitable access and participation in CDG. We hope these programs will become part of NYSERDA's Clean Energy Fund portfolio in 2018. We urge Staff to adopt these recommendations as part of the report to the Commission.

A. Support and additional recommendations for NYSERDA's Low-Income CDG Solicitation

As conceived by NYSERDA, the subscription purchasing program, also termed the NYSERDA Community Solar Initiative, would support the ability of developers to finance projects more easily and at lower capital costs by providing a stable offtaker and a group of stable subscribers and by dramatically reducing customer acquisition expenses. The program also ensures that a significant number of low-income households will derive a no-risk financial benefit from state funding for solar development. Through aggregation and bulk purchasing, the solicitation should be able to achieve a reasonable overall cost while supporting a variety of project sizes, locations, and ownership/subscriber models.

With the additional clarifications from NYSERDA related to the solicitation process, we hope that the solicitation can and will support the development of both large low-cost CDG projects and smaller community based projects that can drive additional community benefits and maximize the impact of NYSERDA's investment.

We note that the clarifications outlined in NYSERDA's October 20th memo, as reflected in its November 29th update to its chapter filing, are critical for our support because they will provide pathways for a variety of important CDG models. We would not support a solicitation that relies solely on an assessment of total cost to award contracts. We believe it is crucial that other benefits be weighed and valued, such as geographic diversity, community/cooperative ownership, ability to deliver lasting community benefits through economic development, pathways for low-income households to purchase extended subscriptions/ownership stake to offset more of their energy usage, and more.

As long as these are considered and accounted for in the solicitation and selection process, we see NYSERDA's solicitation as a critical immediate intervention to ensure that low-income households see significant bill savings from CDG in the near-term. This type of short term intervention is necessary because there are currently barriers around financing for CDG projects as a result of the uncertainty created through the VDER process and the perceived risk of serving LMI households.

Accordingly, we recommend the following improvements to NYSERDA's upcoming solicitation, many of which have been committed to in the NYSERDA memorandum dated October 20, 2017 and are reflected in its November 29, 2017 filing:

1. Consider a variety of factors during procurement to leverage maximum community benefit when determining where to invest public money in CDG projects.

NYSERDA should seek to maximize project value to low-income communities, including impacts that can endure beyond the term of the program. The following project characteristics or initiatives should garner more favorable scoring through NYSERDA's request for proposals:

- Innovative business models that represent a potential pathway to scaleable LMI-focused community solar
- Projects that can offer long-term pathways to low-income participation beyond the term of NYSERDA's contract
- Projects that offer a way for low-income households to cover more of their energy usage through an extended subscription or other mechanism (see number 3 below)
- Projects that offer extended subscriptions to low-income households and commit to report data about payment history to NYSERDA (see number 5 below)
- Projects that help low-income households build their credit history (see number 4 below)
- Cooperatives and other structures that provide ownership opportunities to LMI households
- Meaningful community engagement - including community- or grassroots-initiated projects and/or input on project siting and project development
- Local workforce development, including hiring and job training that supports the inclusion of under-employed populations in the renewable energy economy.
- High-road labor and wage standards
- Energy efficiency education and services for program customers
- Minority- and women-owned businesses
- Resiliency in storm vulnerable communities when coupled with storage and/or Islanding capability.

- Support for affordable multifamily housing (as either project sponsor, host or subscriber)

In short, NYSERDA should seek to avoid simply investing in the lowest cost projects when there are other projects that can provide significant co-benefits that may outlast the term of the procurement program.

2. Optimize program design to suit projects of varying scale, location, and timelines for development

NYSERDA should address challenges to developing smaller-scale community solar projects inclusive of LMI households. Owing to economies of scale, the "sweet spot" for CDG projects in upstate New York is approximately 2.7MW under current market conditions - a scale unattainable to most community groups. In dense urban areas downstate, higher site acquisition and installation costs offset the cost advantages of the higher electricity prices and projects are likely to be smaller in size and less likely to reap the benefits of economies of scale. However, smaller projects located in the LMI communities themselves offer important non-energy benefits. Pricing for subscriptions should emulate that of the MA SMART Program[8], with per-customer subscription compensation from NYSERDA inversely proportional to project size. Such a regime would adequately compensate community developers.

Additionally, regional sensitivity for the inadequacy of megawatt block incentives in some parts of the state is critical. Upstate, incentives are currently insufficient to deliver significant bill savings for many projects. Moreover, incentives for NYC and Long Island often fail to take into account high costs and smaller project sizes in congested urban areas. As with project size, NYSERDA's subscription purchasing program and complementary incentives must address locational differences.

Lastly, the subscription purchasing program should maximize its potential to incentivize new projects by issuing awards in stages. If incentives or contracts are all distributed up-front, they are likely to privilege projects already in the interconnection queue over subsequent waves of development. Such a phasing structure would fairly support a variety of models, including community-originated projects, which may face a longer development cycle than those sponsored by large-scale developers. Such CDG projects may also be the most likely to deliver benefits to LMI New Yorkers. We support awarding 25% of the credit purchasing program's budget bi-annually over two years.

[8] MA smart program main page. https://www.mass.gov/service-details/development-of-the-solar-massachusetts-renewable-target-smart-program

3. Secure long-term benefits for customers through subscription enrollment and/or community ownership

As described in some of our criteria above, NYSERDA should strive as much as feasible through this solicitation to create long-term community benefits. Projects that can offer subscriptions or ownership stakes that are similar to those offered to market rate customers should be given particular weight in the selection process. Such arrangements adhere more closely to the spirit of shared solar by providing customers the choice of switching entirely to renewable electricity and encouraging their awareness of their own usage and generation - or the creation of "prosumers" central to the REV's goals. Keeping the “community” in community solar is key to the sustained engagement required to achieve New York’s desired transition to 50% renewable energy by 2030.

While the bill discounts offered through NYSERDA’s subscriptions are critical, preference should be given to projects that can also provide an important opportunity to create a direct connection between the household and affordable housing providers and their tenants and the renewable energy project, which we see as an important component of the long-term success of such a program. We see this direct connection being established in one of two ways: either through direct ownership opportunities in a community solar project or through a role as an actual subscriber in the project.

Finally, NYSERDA should leverage the modified incentive design for additional benefit, multiplying the impact of the funding allocated to this program. For instance, many potential LMI subscribers - especially renters - also lack the opportunity to develop any significant credit history, a low-cost incidental service participation in community solar can provide. This program design would provide important data about LMI households’ ability to pay for performance contracts and cost saving measures, which would be valuable for the clean energy market as a whole. The importance of program data collection - including soft credit checks and utility bill payment history - is discussed in our final recommendation below.

4. Broaden target population to include low- and no-credit offtakers and multifamily buildings

NYSERDA should intentionally define and target the population that can most benefit from the subscription purchasing program, including low- and no-credit households, occupants of multi-family homes, and low-income residents in need of energy assistance.

First, we emphasize the importance of engaging with the distinction - or overlap - between LMI households and those with low or no credit score. We have traditionally seen developers require FICO scores of 680 or higher to qualify households to participate in community solar. As

many data sets suggest a strong correlation between credit and income, this would indicate a foundational cause of LMI exclusion. However, initial findings by the Connecticut Green Bank show significant segmentation within this population - that is, a sizable low-income population with strong credit, and likewise many middle-income households with poor scores. Further, the legacy of longstanding discriminatory lending practices have created entrenched barriers to credit that disparately impact people and communities of color. NYSERDA should consider not only income, but credit in order to effectively broaden access to CDG through the subscription purchasing program.

Second, while most low-income New Yorkers reside in multifamily buildings, they are underserved by the current slate of community solar incentives. The “donut hole” in this market segment will be individually metered, affordable multifamily housing without a creditworthy umbrella entity - for instance, many HDFCs in New York City, or other collectively-owned housing. The subscription purchasing program can be easily applied to this population. Special consideration should be given to renters in affordable multifamily master-metered (including submetered) buildings. NYSERDA should dedicate resources to identifying - and ensuring benefits flow to - low and moderate income residents of affordable multifamily buildings regardless of metering arrangements.

5. Collect and analyze program data, sharing findings with industry to lower cost and risk of LMI inclusion

Through robust data collection, analysis, and reporting, the NYSERDA credit purchasing program can have impact well beyond its expiration. As discussed elsewhere in this filing, a systemic misunderstanding of LMI households' default risk remains a root cause of this population's exclusion from CDG. If the credit purchasing proposal is modified to engage beneficiaries through a direct stake in their participation - such as subscription enrollment - it will be possible to leverage the initiative as an opportunity to empirically challenge this misperception. Examples include measuring rates of on-time payment, customer churn, and default. By analyzing and reporting these and other findings in an anonymized or aggregated fashion, NYSERDA can multiply the effect of its investment and shift market assumptions while also protecting LMI customers' privacy.

B. Complementary Programs

NYSERDA’s Low-Income Community Solar Initiative will be a welcome step in addressing inequity in access to the benefits of CDG, but it does have its limitations. The NYSERDA program is an essential transitional program that can immediately be implemented while other complementary programs are developed to bring about market transformation. The NYSERDA solicitation only secures the obligation for participating projects to serve low-income

households for 10 years -- far shorter than the project lifespan. The program is also not necessarily a scalable model for LMI community solar inclusion in the long-term.

We highlight these limitations not to discredit NYSERDA's planned solicitation, which we support. NYSERDA's solicitation provides a critical short-term pathway for low-income participation in community solar and a much-needed financial injection into the community solar market which is struggling with the abrupt transition to VDER. We simply wish to illustrate why the improvements outlined above and the complementary programs outlined below are needed to help move New York toward a long-term REV market design that is fully inclusive of households of all incomes and credit scores.

NYSERDA staff have stated the LMI CDG subscription procurement would cost approximately $21.2 million. We therefore propose dedicating a portion of the remaining funds in the Clean Energy Fund (CEF) to the below complementary programming. According to Appendix B of NYSERDA's October 5, 2017 LMI Chapter filing, approximately $33 million of the CEF's LMI dedicated fund is unallocated in the first three years of the CEF, ending at the end of 2018. A portion of this funding could provide support for ensuring low-income customer participation in CDG and help to overcome LMI customers' lack of access.

1. Commit to community solar pilot project funding

We advocate for LMI-focused community solar pilot project funding for the establishment of regional proof of concept pilots with a view to creating replicable, scalable business models appropriate for our diverse state.

LMI residents which will inherently be perceived as "riskier" until successfully demonstrated otherwise. Data from these projects would help correct market misperceptions - e.g. the perceived credit risk of low income offtakers - and bring down cost of other capital. The uncertainty imposed by the shift from net metering to VDER has only exacerbated the perceived risk of innovation in the community solar space. Pilot funding would allow for diverse stakeholders in the community solar space to better understand and develop the best models for non-traditional project sponsors such as locally-based organizations, cooperatives, affordable housing providers and smaller-scale local solar developers.

The pilots would be demonstrations to systematically gather data on barriers to projects which illustrate the mix of incentives, credit enhancements, customer acquisition member and ownership models that can successfully inform policy resulting in community shared solar access for "all New Yorkers regardless of income or zip code"

Projects would vary according to key elements such as geography, site type, business model, ownership entity. The funding mechanism would be that of a 'traditional' pilot, meaning that once the design was approved, the project would be built. Existing NYS incentives and the pre-development program would be leveraged with adjustments to cover predevelopment costs and gap funding would be provided to supplement NY Sun incentives in combination with private financing to ensure projects would deliver meaningful bill discounts, e.g. a minimum of 20%.

It is critical that such models are developed and tested as the widespread levels of penetration of renewable distributed generation needed to meet REV and Clean Energy Standard mandates will require the involvement of a diversity of project sponsors and stakeholders throughout the state. Moreover, pilot funding can broaden developers' geographical focus by facilitating the development of projects outside of the Hudson Valley and Capital Regions.

2. Expand & Streamline Community Solar Predevelopment Assistance

Community solar developers must spend tens of thousands of dollars in the predevelopment phase just to determine whether a project is feasible. While NYSERDA's Affordable Solar Predevelopment and Technical Assistance (PON 3414) supports some of these technical costs, it falls short of addressing the most onerous and temporally challenging outlays: site procurement costs and lease payments, interconnection application fees, and permitting expenses. We recommend allocating CEF monies to prioritize addressing these barriers by covering more of the full range of pre-development costs, which are particularly prohibitive for the completion of LMI-focused projects.

The incongruous timing of predevelopment costs, investor interest, and project revenues are a main obstacle to successful execution and the creation of a scalable model. If the developer proceeds slowly, taking each stage of the process one by one, they are exposed to significantly reduced risk. However, this is not always possible or desirable from a financial perspective. A catch-22 of the need for upfront funding is that developers and community groups are required to demonstrate site control in order to acquire the necessary financing to build the project. But in order to demonstrate site control, community solar developers often need outside money to either buy or lease the site. Likewise, many investors might be interested in a fully permitted project, but most are not willing to spend the risk capital required themselves in the predevelopment phase.

In contrast to these front-loaded predevelopment expenses, project revenues are not recouped by developers and communities until customers begin making subscription or lease payments, posing a significant problem for cash flows. Such challenges are further exacerbated for LMI-focused projects, which face additional financing challenges owing to the perceived risk of

contracting with this demographic. In addition, meaningful participation by LMI communities in community solar will often require the deep engagement of community-based organizations, which are typically lean operations with staff time and resources stretched quite thin. It is therefore challenging for such an organization to take on pre-development project exploration, community organizing, and project build out without upfront resources to do so. Expanded assistance, including significant upfront payments to mitigate predevelopment costs is therefore essential to advancing community solar projects from concept to execution.

3. Coordinate with the Green Bank to Develop LMI CDG Direct Credit and Project Support Mechanisms

NYSERDA should work with the New York Green Bank (NYGB) to coordinate its role in a loan loss reserve (LLR) program, or form of direct credit support to decrease the cost and risk of LMI CDG. Such an initiative would first ease the financing of LMI community solar by providing a backstop to guarantee the perceived risk of default by households traditionally considered uncreditworthy -- whether possessing a FICO score under 680 or lacking sufficient history to be scored. Second, the LLR would facilitate piloting CDG product offerings more suitable for the needs of LMI customers. For instance, LMI individuals are more likely to be renters, and would therefore be better served by short-term contracts of one to five years, versus the industry standard of 20. Likewise, a backstop guarantee would enable waiving punitive cancellation fees that are unworkable for LMI households.

Moreover, an LLR of even several years' term would allow for sufficient data collection to disprove inaccurate perceptions of risk and shift market assumptions in favor of including LMI customers -- both in the service of equity and as a sustainable business model for demand generation. This would therefore have the longer term impact of animating a robust market for community solar in New York State through the infusion of capital from investors and lenders that would otherwise have been hesitant to finance such projects. The LLR has the added benefit of stretching program affordability, enabling allocated funds to roll over year-to-year and project-to-project. Unlike the guaranteed cost of an up-front incentive, an LLR would only be drawn upon if well-calibrated assumptions about realistic rates of default prove incorrect.

Other credit enhancement strategies NYGB may consider include providing an incentive to anchor institutions, non-profit organizations, municipal governments to serve as a backstop off-taker in the event an LMI subscriber defaults on payments. This could be in the form of a discount rate buy-down where NYSERDA would essentially provide a reduction of $.01-.02/kWh for the anchor offtakers. We also recommend that NYSERDA explore the possibility of devoting a percentage of its fund to very low interest debt financing for projects that have LMI beneficiaries. This approach would provide much needed financial support, with the potential

of animating the LMI market and opening up avenues for new capital in this emerging market, while also allowing for the balance of the fund to be used for market rate lending.

Finally, NYGB should adjust its strike zone to be able to provide low-cost debt financing for LMI-serving projects, and drop its own credit score requirement. There are now some financiers in the community solar space that have established relationships with a subset of developers and now are offering more liberal terms than the Bank, specifically, no credit underwriting criteria.

We applaud NYGB's openness to the LLR concept as a mechanism to finance LMI-focused community solar. However, given the Bank's insistence to date on terms approximating market rates, we are not confident of a clear path to its implementation of such a proposal. We recommend that NYSERDA set an internal deadline to create a program resembling that outlined in this section if NYGB has not successfully executed its own.

III. Local Community-based Generation through Community Choice Aggregation

The Commission should move expeditiously to enable the option of the integration of locally generated energy, for those communities that wish to support and incentivize the development of local energy generation into their own Community Choice Aggregation (CCA) models in this way, on an opt-out basis into CCA programs, which would serve all low-income customers (and all other customers) living within the municipal boundaries of the CCA. The coupling of a local renewable energy project with a CCA program would reduce, if not eliminate, both the risk and added cost to developers of including low-income customers by diffusing the risk of non-payment across a large and diverse customer base and by eliminating customer acquisitions costs, which developers have suggested are particularly high for low-income customers. Such a program would also greatly expand the market for distributed energy resources, spurring higher penetration of renewables in line with NYS climate and energy goals.

CCA program administrators could enter into contracts directly with local clean energy project developers and ensure that the clean energy output is part of every CCA customer's energy mix , or could require that the ESCO serving the CCA load enter into such contracts. Costs of participation in the local project would be uniformly shared across the customer base, as would compensation for the energy generated by the project(s). The CCA program should eventually manage a portfolio of projects on behalf of its members that bring down their energy costs and maximize the build out of local renewables.

While the promotion of local energy generation is not explicitly prohibited by the Commission, and in fact NYSERDA has developed a toolkit to assist local governments to include clean energy into their CCA plans, a few barriers (none insurmountable) would need to be addressed by the Commission:

1) The Commission should waive provisions of the CCA program that present barriers to CCA administrators including the output of local clean energy projects in the supply mix of all CCA participants. For example, the prohibition on municipalities being allowed to allocate a portion of customer payments to a clean energy fund may stall the development of local clean energy projects.

2) Customers must receive a single bill for participation in such projects in order to eliminate the risk of customer confusion and the possibility of non-payment that could result, therefore customer billing for this type of program should be transacted through the utility bill. The Commission has recognized this issue, stating in a recent Order approving a recent CCA program that, "the Commission tasked Staff to work with market participants and the utilities to review opportunities for consolidated billing for community distributed generation subscriptions 'to improve the customer experience and reduce collections costs.'"[9] We recommend that the Commission and utilities consider a simpler, less costly alternative to consolidated billing proposed by LMI Working Group participant Brian McNierney (NYSEG) and presented by Emmett Smith (Azure Mountain Power Co.) to the Value Stack Working Group, in which the utility credits the customer with the customer's share of the value from a CDG project minus their share of the cost of participation.[10]

We suggest that the Commission move quickly to address these barriers to enable communities that are currently considering CCA formation to integrate the potential pairing of local distributed generation projects with the CCA structure into their Implementation Plans.

III. Market Transformation Adders

The aligned parties recognize that there are other other ways to incentivize socially beneficial CDG development that may not lend themselves easily to the value stack mechanism, yet are nonetheless important. We propose that NYSERDA and the Commission work with stakeholders to develop a list of these benefits, which can be used by both agencies to overcome near- and

[9] NYS Public Service Commission, Order Approving Community Choice Aggregation Program and Data Security Agreement with Modifications, Petition of Municipal Electric and Gas Alliance, Inc., to Create a Community Choice Aggregation Supply Program, Case 16-M-0015 and Case 14-M-0224: p. 18.
[10] For details of how this billing alternative would work, see Azure Mountain Power Co., "Concept Paper for VDER Phase 2 Value Stack Working Group: Simplified CDG Billing Without Consolidation," VDER Value Stack Working Group, Matter No. 17-01276, August 31, 2017.

mid-term barriers to the emergence of functioning DER markets that serve LMI and EJ communities. This list could then be used to develop Market Transformation Adders and other incentives designed to make it extra attractive to develop projects providing DER services that meet certain criteria. For example, a labor adder would make it extra attractive to hire the people who live in the communities where DER development is occurring, particularly if deployment begins to take place in LMI and EJ communities; which can, in turn, increase the available work in the community, provide opportunities for job training, and provide greater economic opportunities in the communities; all of which can further drive animation of the DER market and build more equitable outcomes.

We propose the following list of benefits as a starting point to inform NYSERDA and the Commission as they develop incentive programs, value streams, and other mechanisms for influence where and how DER development happens in New York:

a. CDG project developed through brownfield[11], landfill[12], or industrial site[13] redevelopment in a low-income or environmental justice community.
b. Multiple-use solar canopy over a parking lot, canal, or walkway located in a low-income or environmental justice community.

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[11] Brownfield should be defined as "any real property where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance adopted by DEC that are applicable based on the reasonably anticipated use of the property, in accordance with applicable regulations."

[12] Landfill should be defined as including the following:

a. A municipal solid waste landfill, which is a landfill specifically designed to receive household waste, as well as other types of nonhazardous wastes.
b. An industrial waste landfill, which is a landfill designed to collect commercial and institutional (i.e., industrial waste), which is often a significant portion of solid waste, even in small cities and suburbs.
c. A hazardous waste landfill, which is a landfill or facility used specifically for the disposal of hazardous waste.
d. A Polychlorinated Biphenyl (PCB) landfill, which is a landfill or facility that accepts and/or disposes of PCB waste.

[13] industrial site should be defined as "a community that has people living and working near or adjacent to industrial facilities and sites, including

a. Heavy manufacturing and industrial operators that require the handling, storage, transfer, or disposal of hazardous substances.
b. Heavy manufacturing and industrial uses and polluting infrastructure. Examples include oil refineries, chemical and petroleum bulk storage, power plants, and solid waste management facilities.
c. Industrial Confined Animal Feeding Operations (CAFOs).

c. Labor adder for hiring employees to build or provide maintenance for a CDG project or other DER installation that are residents of the low-income or environmental justice community in which the project or installation is located.
d. Energy efficiency adder for conducting energy audits of low-income off-taker households or multifamily affordable buildings; referral of off-takers for energy efficiency services; and follow-up to confirm that the energy efficiency services were completed.
e. Resiliency Adder: A CDG incorporated into a microgrid project.
f. Technology adder for projects in which the equipment used is manufactured in New York. To be eligible for this adder, the project must demonstrate that at least 50% of the capital equipment value was manufactured by an approved New York Manufacturer.
g. The project has established a partnership with a local community-based organization to facilitate meaningful engagement with local residents to increase the likelihood of meaningful participation in CDG by low-income residents living in environmental justice communities as subscribers, owners, and/or members in a project.

Conclusion

The aligned parties put forth these recommendations to the LMI Working Group and its Chair in the hopes that it captures the many nuanced and layered considerations all of us as participants in the Working Group seek to optimize and balance. We therefore enthusiastically welcome others who are able and interested to indicate their support for this proposal's recommendations and their inclusion in the final Staff report to be submitted by November 15th for the Commission's consideration.

We thank all Working Group participants for their contributions and engagement in this process to date and look forward to continuing a discussion of these and other ideas.

Respectfully submitted,
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Clarke Gocker, PUSH Buffalo
Kelly Roache, Solstice
Melanie Santiago-Mosier, Vote Solar
Stephan Roundtree, WE ACT for Environmental Justice

Appendix A

Additional Research Needed for the Environmental Justice Component

1. Development of screening tool to identify environmental justice communities

For the purposes of identifying environmental justice (EJ) communities for the implementation of this EJ value stack component, we propose utilizing existing state-level frameworks as a transition placeholder approach and commencing a deeper process of research and stakeholder engagement to develop a more comprehensive EJ screening tool for identification of EJ communities. This process would likely include bringing to the table both those participants and organizations that have been involved in the LMI and Value Stack VDER Phase 2 working groups, EJ stakeholders that directly represent the perspectives of impacted EJ communities throughout New York State, and additional experts and research capacity as needed.

As the transition placeholder approach, we propose utilizing the New York Department of Environmental Conservation (DEC) criteria framework for the identification of "Potential Environmental Justice Areas" for the purposes of identifying environmental justice impacts and concerns within the environmental permitting process.Potential Environmental Justice Areas are 2000 U.S. Census block groups of 250 to 500 households that have demonstrated one or more of the following demographic markers:2

1. At least 51.1% of the population in an urban area reported themselves to be members of minority groups; or

2. At least 33.8% of the population in a rural area reported themselves to be members of minority groups; or

3. At least 23.59% of the population in an urban or rural area had household incomes below the federal poverty level.

This approach to the mapping of Potential Environmental Justice Areas also aligns with Article 10 of the Public Service Law, which dictates analysis of EJ impacts in the siting of major electric generating facilities.3 This regulation also defines an EJ area based on demographic data indicating the presence of a low-income or minority community. It also establishes the presence of an EJ area if both "reasonably available air quality data" and "health outcome data that have been made available to the public statewide at the zip code level" show the potential

for disparities in environmental burden between the community and the county (or in the case of the City of New York, the city as a whole).

There is a recognition that the Potential Environmental Justice Areas and the Article 10 EJ impact analysis would likely lead to a fairly broad definition of EJ communities for the purposes of a VDER EJ Value Stack component and therefore we propose a more in-depth process to identify additional screening indicators that would result in a more targeted EJ identification scheme for longer-term implementation. Examples of what this type of process and the resulting indicators may look like are available in the CalEnviroScreen tool developed in California. This screening tool for identification of EJ communities includes indicators capturing pollution exposure, environmental effects, sensitive populations, and socioeconomic factors.

Additionally, Local Laws 60 and 64 passed in the City of New York mandates the undertaking of an Environmental Justice Study, one of the components of which will include identification of EJ communities at a census block group level within the City by the end of 2018. The study is intended to take into account both income and demographic factors to capture the potential for increased susceptibility to pollution. The study and its process and outcomes, including eligibility factors, may provide some further guidance for the indicators that may be utilized for a state-level EJ screening tool.

2. Consideration of the development of additional criteria for the environmental justice value stack component to capture the benefits of long-term air pollution reduction specifically in environmental justice communities.

We are calling for the creation of a criteria or other mechanism/methodology that would provide value to projects that can demonstrate offsetting localized air pollution, including criteria co-pollutants, in environmental justice communities. This could (and should) be separate and supplementary to any value stack components that provide generalized value for air pollution reduction that is not targeted at benefitting and prioritizing EJ communities.

3. Calculation of appropriate value of long-term EJ, LI, and multifamily affordable building value stack components after the implementation of transition credit

We are proposing a transition credit value that would allow projects that support environmental justice communities, low-income customers, and multifamily affordable buildings to move forward while more in-depth research and development of the necessary methodologies for certain aspects of this proposal take place.