CASE 15-E-0082 - Proceeding on Motion of the Commission as to the Policies, Requirements and Conditions for Implementing a Community Net Metering Programs.

SUMMARY OF THE COLLABORATIVE WORKING GROUP REPORTS REGARDING COMMUNITY DISTRIBUTED GENERATION FOR LOW-INCOME CUSTOMERS

August 15, 2016
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INTRODUCTION

On July 17, 2015, the New York State Public Service Commission (the Commission) issued an Order Establishing a Community Distributed Generation Program and Making Other Findings¹ (CDG Order) allowing multiple customers to net meter from a single generation facility. Community distributed generation (Community DG or CDG) would allow, among other things, low-income residents, renters, homeowners, schools, and businesses to use cleaner energy and affordable power, a basic tenet of the State’s Reforming the Energy Vision (REV) initiative.²

In the CDG Order, the Commission directed Department of Public Service Staff (Staff) to commence a collaborative within 60 days of the Order’s issuance to identify barriers to low-income customer participation in Community DG projects and the mechanisms necessary to remove those barriers. The CDG Order also directed Staff to initiate a collaborative process “involving NYSERDA, low-income community organizers, utilities and other interested stakeholders...”³ In accordance with that directive, Staff submits these summaries identifying the main barriers to participation for low-income customers in Community DG and exploring possible solutions.

BACKGROUND

On February 10, 2015, a Straw Proposal outlining a potential framework for community net metering was issued in a

² Case 14-M-0101, Reforming the Energy Vision.
³ CDG Order, p. 31.
Secretary’s Notice. Comments were due March 31, 2015, with replies due April 13, 2015. A Notice extended the period for reply comments through April 20, 2015. Also, in conformance with State Administrative Procedure Act (SAPA) §202(1), notice of this proceeding was published in the State Register on February 25, 2015. The SAPA period for comments expired on April 13, 2015. Utilities, solar project developers, community advocates, and others submitted extensive responses on the implementation of Community DG.

The CDG Order established the parameters of the newly established Community DG program, summarized herein. The net metering credit produced by the facility will be measured in conformance with Public Service Law (PSL) §66-j and §66-l, and the utilities will offset the credit against the utility accounts of the participating customers. Allocation of credits to customer accounts will be processed on a monthly basis, and the project sponsor must distribute all excess credits at least once a year. Utilities are required to track and distribute credits in accordance with the customer information provided by the sponsor to each individual bill. Volumetric crediting applies to non-demand remote net-metered projects, and monetary crediting applies to demand-metered projects.

A project sponsor will be a third-party energy services company, a generation facility, a municipality, or any other type of business, non-profit or civic association and will have the responsibility for building, interconnecting, and owning or operating the facility in conformance with PSL §66-j and §66-l. Sponsors are required to provide utilities with information about the members, including how the credits should be distributed (account number(s), name, address, and the customer’s proportionate share of the project, as a percentage
of the generation facility’s excess output beyond usage at the host meter).

Customers will procure the legal right to a portion of the solar facility’s output (likely either through subscriptions or by purchasing ownership shares), with each customer’s account credited by the utility with the output of the generation at full retail rates. The allocation of output may be altered by the sponsor after providing the utility 30 days’ notice.

Customer protection in Community DG projects is of the utmost importance. Compliance on behalf of the sponsor with the Home Energy Fair Practices Act (HEFPA), where applicable, extends to Community DG residential customers. Pending a Commission Order on the regulation of distributed energy resources (DER) certain components of the Uniform Business Practices (UBP), such as marketing standards, customer enrollment and disclosure, may apply to the project developer and sponsor.

The CDG Order also established two phases to the initial community distributed generation program. Phase One, from October 19, 2015, through April 30, 2016, focuses on the objectives of REV. These goals include providing the greatest locational benefits to the grid (Community DG Opportunity Zones) shown in maps provided by the utilities, or supporting economically distressed communities with the inclusion of at least 20 percent of the participants being low-income customers enrolled in existing utility low-income assistance programs. Phase Two, which commenced May 1, 2016, expanded Community DG projects to the entire utility service territories without restrictions. The findings and recommendations of the CDG Low Income Collaborative would apply to Phase Two and thereafter if adopted by the Commission.
A subsequent order, issued by the Commission on October 16, 2015, directed electric utilities to file tariff leaves and operating procedures on Community DG by October 26, 2015. On October 23, 2015, an extension to file comments until November 9, 2015, was granted in response to a letter from the Joint Utilities. The operating procedures filed by the utilities outline the program requirements, Community DG host self-certification process, and project process.

Per the CDG Order, “each member of the CDG project shall own or contract for a proportion of the credits accumulated at the generation facility’s meter.” The cost of membership will vary with each project depending on the project sponsor. Financing models for Community DG subscriptions can be structured as a power purchase agreement (PPA), lease, or loan. PPAs and leases allow subscribers to participate in a CDG project without a long-term commitment. In the PPA model, the developer would sell the power generated from the project to the customer at a fixed rate, typically lower than the local utility, for the duration of the contract term. Leases and PPAs generally require a credit score or debt-to-income ratio minimum, as discussed in the Financing Working Group’s report, which is a significant barrier for low-income customers. The upfront costs required for a loan and ultimate ownership also limit low-income customer participation in CDG projects and make ownership an impractical option.

LOW INCOME COLLABORATIVE

In a September 3, 2015 Notice, Staff posed questions on issues related to the Collaborative, including: barriers and technical constraints to participation; standardized customer

4 CDG Order, p. 12.
contracts; energy-efficiency requirements; marketing; data sharing; financing; and, potential business models.

The commenting parties were GRID Alternatives, the City of New York, Acadia Micro, DE-Squared, Vote Solar, Clean Energy Collective, SunEdison, PosiGen, and NRG Energy. Most parties agreed that the major barriers to low-income customer participation in Community DG projects are the upfront cost of the subscription and customers’ low credit scores that prevent outside financing. GRID Alternatives commented that the long-term return on investment from Community DG projects is not a priority for low-income consumers. Parties commented on potential solutions to these issues, including an incentive program for low-income project subscribers and/or developers; extending low-income eligibility; and, direct grants and technical assistance offered by the New York State Energy Research and Development Authority (NYSERDA). Parties also commented on other subject areas, such as standard contracts or customer disclosures, marketing strategies, potential financing models, and data sharing. These comments served as the basis of the discussions going forward and the topics explored by the working groups.

Staff held five collaborative meetings and established five working groups — Financing, Energy Usage Data, CDG Customer (Subscriber), Incentives, and Oversight. Throughout numerous meetings, each working group evaluated the issues and potential solutions discussed further in this summary. The working group reports are summarized below. For the full reports, see the Collaborative’s website.5

Financing Working Group

The Financing Working Group was tasked with exploring solutions to funding issues associated with serving the low-income customer population. Topics included investor concerns, such as low credit scores, high debt-to-income ratios, and default rates; upfront costs of projects and level of savings; NY Green Bank loan guarantees; a consumer cooperative structure; Community Development Financial Institutions; funding Community DG projects; and, the possibility of an Energy Insurance Fund.

Through several discussions, the Financing Working Group determined that the investment required to implement DER remains a significant barrier for many households, especially low-and-moderate income (LMI) consumers, as project membership generally costs thousands of dollars and payback periods would take several years. For Community DG to be affordable for LMI customers, the working group determined that project and financing costs should be kept as low as possible.

Existing non-ownership financing mechanisms, like leasing or power purchase agreements, enable solar customers to purchase renewable energy with little or no upfront costs. These third-party ownership or financing agreements are widely popular in markets across the country. For instance, 90 percent of New Jersey’s new residential solar projects are third party-owned.6 Nationwide, 72 percent of residential solar installations in 2014 used a third-party ownership or financing option.7 However, these models generally require a credit score

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or debt-to-income ratio minimum for participants, which are barriers to many low-income customers. Additionally, while these programs allow for no up-front costs, financing charges can be high in some instances.

Financiers often require credit score minimums for projects and individual financing in order to reduce the risk of non-payment. Currently, Community DG is considered a “new asset class” that financiers have no experience with, which translates to higher risk assessments and a general unwillingness to loan funds. While financial experts, such as those at NY Green Bank, may encourage greater private sector financing within this new asset class, underwriters may still need to raise the cost of capital and use known factors, like credit scores, to offset that risk.

The Financing Working Group found that the use of credit scores to filter participants in Community DG projects adversely impacts low-income customers who have lower credit scores, on average. According to a 2014 Federal Reserve study of a specific form of credit score, individuals in low-income areas had an average score 44 percent lower than individuals in high-income areas. Low-income customers suffer from low credit scores primarily because they have either never or seldom taken out loans, or they have bad payment history with credit cards or student loans.

A. Resources and Recommendations

The Financing Working Group investigated many resources currently available that could offer solutions to reduce or eliminate financial barriers for low-income customers

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in Community DG projects. The group also recommends several of these options.

1. **NY Green Bank**

Administered by NYSERDA, NY Green Bank is a state-sponsored investment fund dedicated to overcoming current obstacles in clean energy financing markets and increasing overall capital availability through various forms of financial support such as credit enhancement, project aggregation, and securitization. NY Green Bank partners with private-sector clients to address and alleviate specific gaps and barriers in current clean energy capital markets through a variety of approaches and transaction structures. NY Green Bank is market responsive in the solutions it provides, although there are several “product types” frequently requested from NY Green Bank to address gaps and barriers in clean energy financing markets, including: credit enhancements to mitigate perceived financial risks; warehousing/aggregation of smaller projects on a short-term basis in order to build larger portfolios that are more attractive to many private-sector capital providers; asset loans and investments to support long-term financial products; and, composite products to combine various financial products in one transaction. Additional information on these products can be found on NY Green Bank’s website.

Working in cooperation with Community Development Financial Institutions (CDFIs) or directly with NY Green Bank, banks could extend credit to a project sponsored for low-income households for the purpose of subscribing to a Community DG project. NY Green Bank, either directly or in collaboration

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with participating CDFIs, could perform a “warehousing” function in advance of the potential development of a secondary loan market for Community DG equity share purchasing loans to LMI consumers.

2. **Community Reinvestment Act**

The Community Reinvestment Act (CRA) was passed in 1977 to encourage commercial banks and savings associations to meet the needs of customers, particularly LMI households, throughout their communities. As a source of funding and financing for community development projects in LMI communities, the CRA could serve as a mechanism for Community DG project funding and/or financing where community-based organizations organize Community DG project participation.

3. **Cooperatives**

Cooperatives are common in the energy sector, with about 13 percent of energy customers nationwide obtaining electricity through a cooperative. However, basic electric service in New York is provided overwhelmingly through investor-owned companies.

Cooperatives have a project financing advantage because members are not bound by typical U.S. Securities and Exchange Commission investment requirements and are allowed to purchase preferred shares — non-voting stock held as an equity investment — or to offer fixed-term member loans. Members can therefore raise capital for a variety of causes, such as energy.

One example of an energy cooperative is Massachusetts-based Co-op Power, which uses a cooperative financing model in the development of Community DG projects. Co-op Power was initially organized to provide its members with energy-efficiency services, bulk-buying discounts on wood pellets and biodiesel, and home-based solar photovoltaic (PV) equipment and installation, but the organization evolved as remote net
metering and Community DG have come into the market. Currently, Co-op Power is developing Community DG projects in Massachusetts, New Hampshire, and Vermont.

The cooperative financing model can also be combined with the Minnesota Flip business financing model. The Minnesota Flip business financing model can be coordinated with other financing available through cooperatives to allow tax equity investors to participate in a way that supports community ownership and management. The Minnesota Flip business financing model was designed to encourage the use of federal incentives for community-owned wind projects. Local owners have the ability to own a significant portion of a wind project, while partnering with an equity investor which can use the federal production tax credits (PTCs) generated from the operation of a qualifying wind project. Both parties would form separate project limited liability companies (LLCs) to own and operate the wind project. The equity investor will reimburse local owners for their expenses incurred during the predevelopment phase, including permits; wind studies; interconnection and transmission studies; financing and acquisition of wind turbines; and, pre- and post-construction costs. The LLC agreement will allocate the governance and financial rights between the parties to determine the date when the ownership “flips” to the local owners for a controlling interest in the project for the remainder of its life.

In Massachusetts, a hybrid model under consideration incorporates the Minnesota Flip business model into a program sponsored by a regional cooperative that would enable low-income customers to have a controlling interest for the span of the project life. As managing partner, the cooperative has governance control of the Community DG installation throughout the life of the installation.
4. **Community Development Financial Institutions**

Community Development Financial Institutions (CDFIs) are private-sector, market-driven financial intermediaries that focus on improving economic conditions for low-income individuals and communities. CDFIs provide financial products and services augmented with educational services and borrower-specific technical assistance.\(^{11}\) CDFIs are administered through the U.S. Department of the Treasury’s Community Development Financial Institutions Fund (CDFI Fund). The CDFI Fund certifies CDFIs to verify that their financial and functional structures are properly operated.

The Financing Working Group identified other entities that could collaborate with CDFIs, such as project developers, individuals, nonprofit constituency-based organizations (CBO), banks, and cooperatives.

Linked deposit programs support lending to underutilized businesses, such as low-income housing, minority-owned companies, agricultural corporations, nonprofit organizations, and other small businesses located in economic development zones. In New York, Empire State Development’s Linked Deposit Program (LDP) provides a lower cost of capital to borrowers and lenders. Lenders can provide loans to borrowers and have capital to financially support the loans through deposits of state funds. LDP is a private-public relationship offering businesses with affordable capital based on bank loans at lower interest rates.

CDFIs also offer similar LDPs to their memberships to enable them to deposit their savings into products which benefit

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low-income customers. For example, Alternatives Federal Credit Union, a CDFI in upstate New York, offers two programs: Green Certificate of Deposit (Green CD) and Partnership Lending. Green CD allows CD holders to invest their savings in a fund to increase the availability of renewable energy and energy efficiency loans at a lower market interest rate. Partnership Lending provides an opportunity for a nonprofit CBO to partner with the CDFI to develop a portfolio of loans to benefit its clients, such as a Community DG project. An interest-bearing linked deposit is maintained with the CDFI and as the clients, or borrowers, repay principal and interest, a new set of borrowers can be selected by the CBO to participate using the same funds as a loan loss reserve. As previously discussed in this report, the Community Reinvestment Act can also serve as linked deposit through reinvestment in low-income communities.

Mission investments provide opportunities for charitable foundations to support their organizations’ goals while investing funds in mission driven financial institutions, such as CDFIs. There are two types of mission investments. One is the mission-rate mission investment, or mission-related investment, which enables an organization to sponsor its social or environmental goals while increasing its long-term financial stability. The other is the below-market mission investment, or program-related investment, which allows an organization to support a specific program’s goals at a below-market financial return.

Credit unions or other financial institutions, serving as CDFIs, are organized as cooperative corporations owned by their members as described previously in this report. In particular, community development credit unions (CDCUs) provide financial services to low-income members in underserved communities. CDCUs offer opportunities for their members to
build assets, have access to low-cost loans, develop good credit ratings, and receive financial education and counseling. CDFIs and CDCUs have the capabilities to become either individual sponsors or through their existing business networks co-sponsor Community DG projects targeted to low-income customers.

Individual Community DG projects funded by CDFIs could be administered by an aggregation entity in order to provide for the desired economies of scale, potentially working in collaboration with NYSERDA’s NY Green Bank. An aggregation entity could potentially combine the Community DG portfolios of multiple CDFIs through a central hub cooperative financed by the CDFIs in collaboration with NY Green Bank. Preliminary discussions have begun on how to develop a targeted low-income aggregation initiative, such as through a loan warehousing function, to establish the desired loan volume to achieve adequate economies of scale. Based on this research, the Finance Working Group recommended that funding be added to the state budget for CDFI assistance, with a focus on enabling low-income communities to effectively engage in the market-based REV energy transition. Such assistance would need to be coordinated with U.S. Department of the Treasury funding and program requirements. Without such coordination, it is possible that additional funding could be duplicative or result in conflicting market offerings.

5. **New York Power Authority**

The New York Power Authority (NYPA) currently manages the Five Cities Program which involves the joint development of comprehensive energy plans for the cities of Albany, Buffalo, Rochester, Syracuse, and Yonkers. The plans include a list of recommended projects to incorporate energy efficiency and renewables for which NYPA provides technical and financial assistance to aid in implementation. NYPA is currently in the
planning stages for a broader program rollout in the 2017 timeframe. It is also exploring Community DG and projects targeted at LMI customers.

6. **NYSERDA**

The Financing Working Group also evaluated financing offerings by NYSERDA to determine if there were options available to low-income customers to encourage participation in Community DG projects. NYSERDA provides energy efficiency programs that are designed to assist low-income customers; however, financing options are limited. The commercial Green Jobs-Green New York (GJGNY) may be a potential option, although there would be no incentive for low-income customer participation in Community DG. The Financing Working Group noted that NYSERDA is currently developing an incentive program to promote solar technologies for LMI communities, which may provide additional funding for potential Community DG project sponsors or to LMI customers.

Some working group members also stated the New York Shared Renewables Coalition’s (NYSRC) comments submitted April 7, 2015 in this case would benefit low-income customers in Community DG. NYSRC recommended that NYSERDA work with a

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12 NYSERDA offers Assisted Home Performance with ENERGY STAR® and EmPower New York to encourage LMI customers to install energy-efficiency measures in their homes. Additionally, NYSERDA offers On-Bill Financing, but program qualifications would not support participation in Community DG projects.

13 Since this program is currently in development, Finance Working Group members suggested that NYSERDA could reasonably consider, or be directed by the Commission to consider including all fuel sources as program eligible instead of just solar, consistent with PSL §66-j and §66-l.

14 See Case 15-E-0082, Community Net Metering Program, Shared Renewables Coalition comments (filed April 7, 2015).
stakeholder advisory committee to develop policies and programs to facilitate Community DG, including a program that offers low-income customers a deeper discount in addition to existing project discounts to help overcome the cost of entry. NYSRC also states that NYSERDA should release a request for proposals for teams of developers and not-for-profit partners to develop pilot projects serving LMI customers. It also recommended that the Commission consider providing low-income customers with the option to allocate their electricity assistance funds toward a shared renewable energy facility, rather than the utility supplier, and receive credits on their utility bill in proportion to their share.

The Financing Working Group suggested that NYSERDA create an incentive mechanism to sustain low-income customer participation whereby potential project sponsors are rewarded for attaining or sustaining a certain level of low-income participants. The incentive could incorporate a program-level goal (e.g., 20 percent or otherwise) of the entire Community DG program consists of low-income participants, as discussed in the Oversight Working Group’s report, and include a mechanism and criteria for identifying and verifying low-income status. Alternatively, the Commission could explore establishing a lower minimum threshold for low-income engagement on a project-by-project basis, similar to what has been established in Colorado.\textsuperscript{15} Applicability could be tailored to exclude projects for which 50 percent or more of the output is committed to municipalities. This mechanism would incent developers to look for new ways to engage low-income customers

\textsuperscript{15} Several members expressed concern that even a project-specific requirement lower than 20 percent would create a barrier to participation, and instead recommended a system-wide goal.
and would ensure that every developer considers LMI customers a priority.

7. Additional Resources

The Financing Working Group recommended a legislative amendment to the Energize NY’s Property Assessed Clean Energy (PACE) program to allow the combination of multifamily housing with commercial anchors to facilitate Community DG projects. Administered through the State’s Energy Improvement Corporation, PACE is a financing mechanism targeted to energy efficiency and renewable energy projects on private property. Local and state governments and other inter-jurisdictional authorities are authorized by state law to fund the up-front costs of energy improvements on commercial and residential properties which are paid back by property owners through a tax bill charge. The current PACE financing model’s enabling legislation defines a renewable energy system as an “energy generating system for the generation of electric or thermal energy, to be used primarily at such property ...”16 It therefore appears that PACE financing was to accommodate individually sited arrays benefitting individual properties, and may not be applicable to Community DG if the majority of a project’s energy benefits accrue off-site. This also creates a barrier for larger commercial customers to act as project anchors when they can be allocated, at most, 40 percent of the project’s output.17

It is not recommended the program be extended to single-family residential properties as it may expose low-income customers to greater foreclosure risk. In some instances, the only significant asset low-income customers possess is their home equity.

16 General Municipal Law § 119-ff(6) (emphasis added).
17 CDG Order, p. 7-8.
The Financing Working Group also identified other resources for future consideration for potential funding of Community DG projects targeted to low-income customers, such as utilizing hospitals as Community DG anchors under the federal Affordable Care Act; one-stop financing solutions for multifamily housing available through the state’s Community Preservation Corporation with some financial support via pension fund investments; and, tax-exempt bonds for local non-profit project financing through regional Industrial Development Agencies.

B. Other States

The Financing Working Group also conducted additional research on Community DG in other states.

California launched the Go Solar California campaign in 2007 with a goal of deploying three gigawatts of PV power to homes and businesses by 2016, to be financed with a total budget of $3.3 billion over ten years, collected through a charge on electricity distribution. The largest component of the program, the California Solar Initiative (CSI) reserved 10 percent of its budget — $216 million — to support the adoption of solar power by low-income consumers. This budget is divided between the Single-Family Affordable Solar Housing (SASH) and Multifamily Affordable Housing (MASH) programs. In addition to CSI, the state launched the Solar for All California program in 2010, which directly invested a portion of its annual electric Low Income Heating and Energy Assistance Program (LIHEAP) funding to support solar deployment for LIHEAP-eligible homeowners. These funds were also subject to the State Department of Energy’s Weatherization Assistance Program (WAP) program rules and requirements.

In Louisiana, some solar developers leverage the state’s 50 percent tax credit on purchased solar systems, 38
percent tax credit on leased systems, and the federal 30 percent Residential Renewable Energy Tax Credit to reduce the costs of financing PV systems. To further reduce costs a solar developer can secure financing on community redevelopment terms, which can be more favorable than standard agreements. Sixteen other states currently offer residential renewable energy tax credits to offset solar system costs.

Colorado passed the Community Solar Gardens Act in 2010, which allows Colorado homeowners to purchase shares of centralized solar installations. Community solar gardens (CSGs) allow homeowners, who would not otherwise have the necessary rooftop space, to purchase solar power. Colorado’s legislation is unique in that it targets low-income households by requiring that five percent of the electricity from each CSG be reserved for subscription by low-income households in order for the CSG to qualify for state renewable energy credits.

In 2014, the Vermont Legislature enacted the 10% for Vermont Program, which enabled the Vermont Economic Development Authority to sign a promissory note with the State Treasurer, including $10 million dedicated to long-term, fixed-rate loans for renewable energy projects. The program provides financial support to further develop new solar energy installations in the state.

C. The 20 Percent Requirement

The Financing Working Group identified several issues with the 20 percent low-income participation requirement. At a high level, it is not clear whether 20 percent participation is the optimal level to provide for both low-income customer engagement and project financial viability. More specifically, the CDG Order is unclear as to whether the existing 20 percent quota is an ongoing requirement or a one-time initiation
requirement. If an ongoing requirement, the potential penalties for failing to meet this threshold post-development are unclear.

Second, project developers must also initially verify a customer’s low-income status. It is unclear whether the developer can rely on the customer’s own assertions, or if the developer must independently verify the customer’s status by obtaining proper customer consent. Third, the CDG Order defines low-income customers as those receiving benefits under the Home Energy Assistance Program (HEAP) or a utility-administered low-income discount program, both of which may not capture all low-income customers.

In combination, these issues add to the financial risk for potential developers when, to the contrary, flexibility is needed during the early stages of the Community DG program as project sponsors, utilities and financiers become acquainted with the program. Per-project low-income participation quotas are addressed in more detail in the Incentives and Oversight Working Group reports.

D. Additional Recommendations

The Financing Working Group offered several recommendations to add value to Community DG programs and to provide a path for moving forward in establishing mechanisms to eliminate financial barriers to LMI participation. One recommendation is to establish a task force to continue researching low-income financing solutions. The task force, sponsored by the Department, would engage financing entities mentioned above, State agencies, and other interested stakeholders to identify options to maximize the potential for reducing LMI barriers to participation.

Another recommendation is a database or website of existing resources and financing options for potential participants in Community DG projects. The Financing Working
Group recommends a “Community DG Finance Information Resource” website be posted on the NYSERDA website.

As Community DG projects move forward and financing solutions are offered to encourage LMI participation, the Financing Working Group recommends that any data on the financial solution and LMI participation be collected by sponsors or developers, such as confidentially tracking data on LMI customer loan repayment rates, or improvements to credit scores, etc. This data could be aggregated in a database and used when developing new or improved financial solutions.

The Collaborative recommended that the Financing Working Group explore the establishment of an energy insurance fund to facilitate private sector investment in low-income Community DG through a specific electric surcharge, or as part of NYSERDA’s Clean Energy Fund electric surcharge recently established in January 2016. Such an approach would secure financing through the fund with Community DG developers or sponsors through an “energy bid” for low-income housing. Research into an energy insurance fund will be continued.

The Financing Working Group has discovered many options for helping LMI customers access financing for Community DG, and it recommends a series of pilot projects to test various models and inform State policy. A state authority, such as the DPS or NYSERDA, could use a certain amount of funding to solicit a set of proposals using the models listed in this report to improve LMI participation. Projects would be chosen to receive funding and technical support from the authority, pursuant to their providing ongoing data concerning the success of their model. This data would include but not be limited to loan repayment or lease payment history, market development, energy production, evidence of cost shifting or private investment. These pilot projects would provide a venue for the testing of
many models for LMI participation, and the results could be used to select the best financing models and to recruit private capital for those projects.

Energy Usage Data Working Group

The Energy Usage Data Working Group explored the most efficient means of transferring customer data to utilities and developers while addressing privacy concerns. Other topics the Energy Usage Data Working Group discussed included privacy concerns; access to meter data; streamlining data sharing between utilities and project developers; monitoring and evaluating performance; customer usage invoices; and, standardized business transactions and software.

Currently, most of the electric utilities utilize secure spreadsheets in combination with either a web portal or secure email to exchange customer usage data with the Community DG hosts. The only outlier, Central Hudson, is using a paper form in addition to a web portal. The electric utilities’ Community DG Procedural Requirements document, which includes the Data Exchange Protocols and, in some cases, the applicable forms, are located on each of their respective websites. Further details on an individual electric utility current data practices can be found in the Energy Usage Data Working Group’s full report.

The utilities also provided potential processes to be utilized in the future. The utility sections are then followed by a proposal offered by Acadia Micro (Acadia) regarding the transfer of data in the long-term.

A. Consolidated Edison Company of New York, Inc. (Con Edison)

1. Future State
Con Edison will continue to work with the other New York utilities and Staff during Phase Two to investigate alternative solutions based on Phase One lessons learned. Con Edison is investigating more robust data transfer capabilities that will eliminate the need for utilizing the Company’s Retail Access Information System and Excel spreadsheets for allocation requests related to Community DG.

2. Security and Privacy

Con Edison will require each Community DG host to execute an agreement setting forth customer data security and privacy requirements. The agreement will include a requirement for the Community DG host to document and implement a cybersecurity policy that represents a commitment to appropriate cyber security protections, aligned with the National Institute of Standards and Technology (NIST) Cyber Security Framework.\(^\text{18}\)

The agreement will also require at least annual reviews of adherence to cyber security policies, terms for notifying the DPS and Commission immediately in the event of a breach, the process for revocation of participation in the Community DG program, and a requirement for cyber security insurance.

B. Orange & Rockland Utilities, Inc. (O&R)

1. Future State

O&R will continue to work with the other New York utilities and Staff during Phase Two to investigate alternative solutions based on Phase One lessons learned. O&R is investigating more robust data transfer capabilities which will eliminate the need for use of secured Excel spreadsheets for allocation requests. The Company will consider alternate platforms that the Community DG host could self-serve. Platforms that may be considered for long-term use are

Electronic Data Interchange (EDI), Green Button, Green Button Connect, or a web based self-service model.

2. Security and Privacy

O&R will require each Community DG host to execute an agreement setting forth the Community DG host’s requirements related to customer data security and privacy. The agreement shall include a requirement for the Community DG host to document and implement a cyber-security policy that represents a commitment to appropriate cyber security protections, aligned with the NIST Cyber Security Framework. The agreement will also require at least annual reviews of adherence to cyber security policies, terms for notifying the DPS and Commission immediately in the event of a breach, the process for revocation of participation in the Community DG program, and a requirement for cyber security insurance.

C. Central Hudson Gas and Electric Corporation (Central Hudson)

1. Future State

Central Hudson will continue to collaborate with the other New York utilities and Staff during Phase Two to investigate alternative solutions based on feedback obtained in Phase One. Central Hudson is planning on implementing software for secure file transfer protocol (FTP) data transfer capabilities by the start of Phase Two. This will provide opportunities to automate forms and receive them electronically while protecting customer account information.

2. Security and Privacy

Central Hudson will require each Community DG host to agree to and abide by the Company’s data security and confidentiality protocols.

D. Niagara Mohawk Power Corporation d/b/a National Grid (National Grid)
1. Future State

National Grid will consider alternate platforms that will serve Community DG host needs. Platforms that may be considered for future use are EDI, Green Button, Green Button Connect, or a web-based self-service model. National Grid will continue to work with the other utilities, Staff, and interested parties regarding long-term solutions.

2. Security and Privacy

National Grid’s Community DG Operating Agreement includes a “Data Security Rider” that covers the appropriate use and protections of personal and company data. The Data Security Rider is an addendum to the Community DG Operating Agreement and can be provided upon request.

E. New York State Electric & Gas Corporation/Rochester Gas and Electric Corporation (NYSEG/RG&E)

1. Future State

NYSEG/RG&E will continue to work with the other New York utilities and Staff during Phase Two to investigate alternative solutions based on Phase One lessons learned. For initial/subsequent/annual requests, NYSEG/RG&E propose to continue to use the Excel form via secure File Transfer Protocol (FTP) rather than secure email. For historical consumption requests, NYSEG/RG&E intend to consider alternate platforms that the sponsor could self-serve. Platforms that may be considered for long-term use are EDI or a web-based self-service model.

2. Security and Privacy

NYSEG/RG&E’s Community DG Operating Agreement includes a “Data Security Rider” that covers the appropriate use and protections of personal and company data. The “Data Security Rider” is an addendum to the Community DG Operating Agreement and can be provided upon request.

F. Acadia Micro’s (Acadia) Proposal for Long-Term Data Transfer
Acadia proposed an alternative method of data transfer. The Acadia proposal, described in more detail below, supports the use of a RESTful API (an application program interface which uses representational state transfer) for the transfer of data because, in their experience working with sponsors in support of community solar subscribers in Massachusetts, data is the key to providing a valuable customer experience. Furthermore, due to their limited access to computers, difficulty in acquiring data disproportionately impacts low-income customers. In order for the Commission to achieve the objectives of the Community DG program, the rules related to the exchange of customer data, including usage, should be scalable, secure, accessible, cost efficient, and uniform statewide.

With respect to scalability, there are approximately 3 million low-income customers in New York State, and many more customers will become eligible in Phase Two as the program is expanded beyond Opportunity Zones and low-income customers. Any prescribed data exchange protocol should provide for automated means of transmitting data, without requiring manual intervention of any sort, as is required in the current operating rules. Manual intervention is costly, error prone, and slow, which would result in higher costs and less than ideal subscriber service.

The means by which data is transferred must also be secure. Consumer energy information is considered confidential unless authorization is provided. With respect to accessibility, RESTful APIs are utilized across other industries and there are many software developers that are very familiar with them. Common software platforms all include support for RESTful API implementations, and they are utilized by a broad spectrum of prominent companies including Amazon, Facebook,
Twitter, Bank of America, and many utilities via the Green Button data effort.

Cost effectiveness is largely driven by both scalability and the availability of developer resources. In order to provide the lowest cost possible Community DG product offering, the underlying data exchange technology must be widely practiced and have a broad availability of developer resources.

Uniform data requirements and file exchange protocols across all New York utilities are strongly encouraged. Further, consistency in protocols for allocation requests and the request and receipt of historical usage data should be made in order to expedite completion of the overall goals of REV. Finally, appropriate timeframe requirements for utility responses to data submissions and requests should be codified.

1. RESTful API as a Solution

RESTful API, Acadia continues, is currently the most popular method of systems interaction for a wide variety of web-based programs. Generally, it is the method by which a system, user or program can interact with the cloud or a server. RESTful API is easier to scale than Simple Object Access Protocol (SOAP) API, which will allow for a more streamlined application in systems which serve millions of customers. This is because RESTful API uses a smaller message format which increases efficiency and performance, while reducing processing requirements and costs over time. In addition to these advantages, developers often find RESTful API easier to implement in a pre-existing system than SOAP API.

The SunSpec Alliance, comprised of over 70 solar and distributed energy industry participants that develop interoperability standards for many aspects of the grid and power production throughout the United States, recommends the implementation of RESTful API amongst all participants. This
recommendation applies to both Solar Renewable Energy Certificates (SREC) reporting, and the interchange of other related production and consumption data sets to allow for a secure, low-cost, and streamlined mode of communication.

Acadia and SunSpec Alliance point to the many electric industry and consumer supporters of the Federal Call to Action of Green Button, as it provides utility customers with a simple and secure method to access their own energy usage information. Green Button was developed by NIST to provide a simple, secure, and scalable method for the transfer of energy usage, production and consumption data to streamline the expansion of renewable energy and energy efficiency efforts throughout the United States. For this reason, Acadia believes it is in the best interest of both utilities and generation entities to adopt this standard. Green Button’s Connect My Data has been implemented by San Diego Gas & Electric Company, Pacific Gas & Electric Company, Southern California Edison Company, Commonwealth Edison Company, and Potomac Electric Company; and, London Hydro and Hydro One Limited in Canada. This Green Button application utilizes API technology to ensure a secure and efficient transfer of data between utilities, consumers, and qualified third-party sponsors.

Meanwhile, a Green Button Data Software Development Kit has been established to help developers and energy professionals to streamline the implementation into any system. All testing for the implementation of Green Button

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20 The steps for Green Button implementation are: 1) verify that Green Button XML schema is established within the utility database; 2) implement Green Button Download My Data (DMD)
Data can be done through the Green Button Sandbox. Every stage will involve developer testing and validation. Therefore, the adoption of Green Button technology for data transfers between utilities and third-party organizations offers the most immediate pathway towards an efficient and intelligent grid in New York State. However, distribution companies must coordinate with prospective third-party entities to ensure compatibility across all possible data communication channels.

2. Security and Third-Party Authorization

The Green Button Implementation agreement was developed to create a common ground for all participants in a program. Before any third-party entity is allowed to implement Green Button Connect My Data, they sign and comply with an agreement in order to access the data in any utility’s system. Green Button Connect My Data would require authorization from satellite data centers by using the Internet Engineering Task Force (IETF) Auth 2.0 Authorization Framework standards [RFC6749] and [RFC6750].

3. Utility Response

Utilities expressed concern with the proposal to endorse RESTful APIs, noting that a number of other proceedings were addressing data interchange issues, including the DER Oversight Collaborative and Community Choice Aggregation proceeding. The utilities expressed a desire that specific technologies should be reviewed at the broadest possible level of regulatory engagement, as this will result in all affected stakeholders having a voice in the discussion. Some aspects of the Acadia proposal were discussed at the REV Data Technical through XML Parsing jscript or Open Energy Services Provider (ESPI); 3) implement Green Button Connect My Data (CMD) through OpenESPI; and, 4) implement CMD for Third Parties through Ruby, OpenESPI, or Python.
Conference on December 16, 2015. At that technical conference, some utilities, namely Con Edison and O&R, expressed openness as it relates to the implementation of Green Button Connect. In addition, some utilities note that, in order to determine the best long run solution, consideration needs to be given to leveraging existing utility investments in EDI, which in some cases may be able to compliment RESTful API implementations.

CDG Customer (Subscriber) Working Group

Participants in the CDG Customer (Subscriber) Working Group discussed the benefits and drawbacks of a standardized customer contract or disclosure statement; standardized outreach and marketing material; customer acquisition and status verification; and, coordination with the ESCO Low Income Collaborative report.\(^{21}\)

A. **Standardized Disclosures/Contracts**

The CDG Customer Working Group identified a goal of ensuring that LMI customers understand Community DG contract terms and conditions. The CDG Customer Working Group reviewed best practices from other states, in particular Minnesota, which has an operating community solar program with robust consumer disclosures.\(^{22}\) Community DG sponsors were concerned that standardized contracts would impose an “inappropriate limitation” on their ability to develop new products and limit development of this new business model.

The CDG Customer Working Group recommended that a standardized list of clauses and disclosures be utilized across


\(^{22}\) http://mncerts.org/csg-disclosure
contracts, and that Community DG project sponsors go through this information with customers via a brief term sheet (one to two pages) or checklist. The information, which includes subscription costs and terms, is detailed in the CDG Customer Working Group’s report. The CDG Customer Working Group also stated that standard clauses on dispute resolution, through the project sponsor or the Commission, as well as information regarding HEFPA rights and protections should be included in all customer contracts.

B. Customer Consent to Disclose Information

The CDG Customer Working Group recommended specific protocols around customer consent to disclose energy usage data as well as income status, with the goal of appropriately protecting personal information and ensuring customers know how their information will be used.

The CDG Customer Working Group identified three areas of concern regarding customer consent to disclose information: customer consent process; customer disclosure of income status to a project sponsor; and, how data would be handled and by whom. The CDG Customer Working Group realized that disclosing income status is particularly sensitive for many customers. Additionally, utilities had advocated that it should be required to presume that the Community DG host obtained appropriate consent for disclosure of low-income status, as this is the responsibility of the project sponsor or developer and should be completed at the point-of-sale. Utilities later requested additional discussion on this topic in their comments on the ESCO Low Income Collaborative Report given Staff’s legal analysis contained in that report related to disclosure of low-income status to third parties.

The CDG Customer Working Group recommended several guidelines for Community DG project sponsors to obtain customer
consent to verify low income status during point-of-sale transactions. Project sponsors should be required to have willing customers sign an income status disclosure form, either paper or electronic, in a font no smaller than 14 point and in plain English. The form should clearly indicate that it is proof of subscriber consent to reveal low income status, that the sponsor will not use the information for purposes other than project enrollment, and that the sponsor will not disclose or sell the information to a third-party vendor. Furthermore, the sponsor must obtain the subscriber’s written or electronic signature for authorization to access to usage data from the utility. The CDG Customer Working Group acknowledges these recommendations may change depending on the outcome of other Commission proceedings, including REV and DER Oversight, especially with respect to the process of disclosing low income status.

C. Standardized Outreach and Marketing

The CDG Customer Working Group agreed that outreach and marketing is critical to facilitating low-income participation in Community DG, and that community-based organizations with existing ties to low-income customers are best positioned to reach them. Recommendations included: community information sessions organized by low-income advocates, elected officials, or community-based organizations; programs available through local municipalities; and, multilingual and multicultural marketing.

Recognizing that NYSERDA has a suite of existing programs designed to assist low-income households in managing their energy use, the working group recommends NYSERDA play a central role in connecting low-income customers with Community DG project sponsors. Approaches could include marketing information about Community DG projects across NYSERDA programs,
such as Community Energy Resources or NY-Sun, and leveraging community-based organizations with existing connections to low-income customers.

The City of New York (NYC or City) presented two City-specific programs that could be used to market Community DG to low-income customers. The NYC Solar Partnership, an initiative spearheaded by Sustainable CUNY at the City University of New York in collaboration with the Mayor’s Office of Sustainability and NYC Economic Development Corporation, promotes community solar projects and group purchasing of solar power in the City, with the goal of installing 250 MW of solar photovoltaic on private buildings by 2025. The NYC Community-Based Retrofit Accelerator is a partnership between the City and community-based organizations to launch education, outreach, and assistance programs to accelerate retrofits in small and mid-sized building stock, complementing a utility cost reduction program under development. This program will focus on neighborhoods with housing affordability and grid reliability issues.

D. Coordination with ESCO Low Income Collaborative

It was recognized that some of the issues under review in the ESCO Low Income Collaborative are closely related to those discussed in the CDG Customer Working Group, including treatment of a customer’s income status. A Commission Order in the Retail Access proceeding is expected by the end of Phase One (April 30, 2016) of the Community DG program. Therefore, the CDG Customer Working Group recommended that the Commission re-examine the impact of any Order on the Community DG program as part of the Commission’s first annual review of Community DG near the end of 2016. Community DG rules can be adjusted, as appropriate, to address any directives from the ESCO Low Income Collaborative that overlap with Community DG.
E. Customer Acquisition and Verification

The key issues related to customer acquisition and verification are: how customers will be identified as low income; how will that income status be verified; and, which party should confirm the validity of the income status. The CDG Customer Working Group noted that based on the definition of low-income customer, the entity that verifies eligibility will change. Potential verifying entities include NYSERDA, the project developer or sponsor, a third-party, or the New York State Office of Temporary and Disability Assistance (OTDA), or the utility. The CDG Customer Working Group also researched potential definitions of LMI status and the populations that would fall within those definitions, which was further discussed by the Oversight Working Group.

Incentives Working Group

The Incentives Working Group was tasked with the identification of barriers and recommendations of solutions to create incentives for facilitating low-income customer participation in Community DG. Members of the Incentives Working Group focused on several topics raised by the Collaborative: reviewing NYSERDA incentives targeted to low-income customers; coordinating opportunities with NY Green Bank or other similar financial institutions; availability of grants and technical assistance for nonprofit developers or sponsors; setting a rate for eligible low-income participants; establishing specific reporting requirements; identifying the economies of scale; and, treating regional variations in incentive levels.

A. NYSERDA Incentives Targeted to Low-Income Customers

The Incentives Working Group reviewed the incentives and programs provided through NYSERDA. The Incentives Working
Group also reviewed NYSERDA’s September 29, 2015 Compliance Filing Regarding Unencumbered Customer-Sited Tier Renewable Portfolio Standard (RPS) Funds and Low to Moderate Income Program Update, which outlines strategies to increase LMI customer participation in its solar PV programs through the expenditure of $13 million allocated in the Commission’s April 2014 NY-Sun Order. 23 The Commission recently approved an additional allocation of $234.5 million in the Clean Energy Fund to increase LMI solar participation through targeted activities in the next three years. 24 In addition, the Incentives Working Group also investigated the incentives framework in other jurisdictions to identify how a state level program can be effective while increasing low-income customer participation in Community DG.

In October 2015, NYSERDA launched an incentive program for onsite solar PV for LMI customers. While this program is in its initial implementation phase, NYSERDA will apply lessons learned to future program measures related to Community DG for LMI customers. These measures will also be responsive to the principles and recommendations provided in the public comments on the Commission’s March 2015 Community Net Metering Straw Proposal, as well as the input of the Incentives Working Group.

The Incentives Working Group identified additional options that can contribute to the success of incentives, such

23 Case 03-E-0188, Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, Order Authorizing Funding and Implementation of the Solar Photovoltaic MW Block Programs from 2016 through 2023 (issued and effective April 24, 2014).

as production tax credits and rebates. A tax credit is a dollar-for-dollar reduction in the income taxes that an individual or business claiming the credit would otherwise pay the Federal government. This federal investment tax credit (ITC) is based on the amount of investment in solar property. Both the commercial and residential ITCs are credits equal to 30 percent of the basis that is invested in eligible property. Rebates are typically in the form of a dollar amount per watt, provided to the solar installer to offset the upfront cost of the system. For example, Washington, D.C.’s Solar Advantage Plus Program offers $2.50 per watt to authorized contractors.

The Incentives Working Group stated the application of incentives would reduce the upfront cost barrier for low-income participation, and Community DG developers must be able to determine which incentives are suitable and/or which incentive levels are available for potential subscribers. One approach could be the adaption of existing assessment tools for Community DG. The two following tools were discussed for potential use: the System Advisor Model (SAM), which was developed by the National Renewable Energy Laboratory (NREL) with U.S. Department of Energy (DOE) funding; and, the Clean Power Estimator, which is administered through the NY-Sun Initiative. SAM enables NREL and DOE to develop program planning and grant programs; manufacturers to evaluate the effectiveness of efficiency improvements and energy cost reductions of installed systems; and PV solar project developers to research different incentive mechanisms to determine electricity costs and savings. The Clean Power Estimator enables an electric residential or small commercial consumer to receive a customized estimate of the

costs and savings of a solar installation through a participating NY-Sun developer, including information such as utility rates, accessibility to sunlight, and incentives and tax credits.26

NYSERDA sought input from the Incentives Working Group members and other Collaborative stakeholders on the structure of an incentive program, particularly numbers and examples related to potential projects via a questionnaire, “Questions for Low Income Collaborative Incentive Working Group Members Regarding Incentive Mechanics.” Five Incentives Working Group members responded, representing a solar developer, consulting firm, city government, weatherization and energy efficiency agency, and an advocacy group. The responses indicated that NYSERDA incentives would be most useful if directed to developers, and that technical assistance should be provided to support sponsor roles in establishing relationships with Community DG project partners, particularly those with low-income customer bases.

Based on this research, the Incentives Working Group recommended continuing to provide meaningful feedback to NYSERDA. Incentive design and implementation should be responsive to the financing and broader market context.

1. **NY-Sun Affordable Solar Program**

The NY-Sun Initiative was established to expand the use of solar installations statewide and to coordinate solar power programs offered through NYSERDA, PSEG Long Island, and NYPA. The initiative is part of the State’s policy to build a clean, resilient, and affordable energy infrastructure. The program provides access to solar energy and reduces electricity costs to low-income customers through its Affordable Solar

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Program. Currently, the program doubles the incentives provided for onsite residential solar PV projects for owner-occupied households earning less than 80 percent of an area’s or State’s median income, thereby lowering the initial solar installation costs for the homeowner. The incentive can also be combined with NYSERDA’s Assisted Home Performance with ENERGY STAR® or EmPower New York energy efficiency programs.

2. Green Jobs-Green New York

Through NYSERDA’s Green Jobs-Green New York (GJGNY) program, affordable financing options are available to residential housing with four or less units. According to NYSERDA’s website, GJGNY utilizes constituency-based organizations to recruit residential, small businesses, not-for-profits, and multi-family building owners into energy assessment and financing programs and clean energy training opportunities. Financial incentives are available for solar installations performed by an approved NYSERDA contractor through the Residential and Small Business/Not-for Profit On-Bill Recovery loan, which offers monthly payments for energy improvements via utility bills, and the Residential Smart Energy Loan, which offers low-interest rates, simple repayment options, and flexible financial terms. The enabling legislation for Green Jobs-Green New York states that, for GJGNY purposes, a “qualified energy efficiency service” is one that increases the energy efficiency and conservation of an existing structure, including but not limited to “installation of energy technologies eligible for net energy metering pursuant to section sixty-six-j or sixty-six-l of the public service law.” Thus, while some of the benefits must accrue on-site, the


28 Public Authorities Law § 1891(12)(n)
language of the GJGNY enabling legislation suggests that the remaining credits can be allocated to offsite consumers pursuant to existing net metering laws.

B. Coordinating Opportunities with NY Green Bank or Other Financial Institutions

The Incentives Working Group discussed coordination between NY Green Bank with other entities, such as credit unions, CDFIs, developers, and affordable housing organizations, to partner in the sponsorship of Community DG projects.

Incentives Working Group members and CDFI representatives met with NY Green Bank in December 2015. NY Green Bank indicated an interest in assisting developers or other intermediaries who could aggregate Community DG projects, but the dollar value of individual Community DG projects would be too low to interest NY Green Bank’s counterparties on a one-off basis. However, on an aggregated basis, Community DG projects could reach an attractive size for private-sector counterparts, and NY Green Bank would consider loan guarantees, loan warehousing, or other credit enhancements to stimulate the capitalization of projects serving low-income consumers. The typical product size for NY Green Bank products ranges from $5 million to $50 million, although the entity has been designed to provide products of greater or lesser value to allow for flexibility. One approach discussed was a cooperative model linking an aggregated group of contractual Community DG projects through a central hub cooperative, which would provide back office support, technical assistance, and capitalization.

Additionally, a one-stop shop with financing tools, incentive information, and interconnection technical assistance could serve as a resource for interested parties to develop Community DG for consideration by NY Green Bank. The Incentives Working Group recommended that financial institutions and other
project partners interested in low-income Community DG continue exploring options and aggregation mechanisms with NY Green Bank.

C. Grants and Technical Assistance for Nonprofit Developers or Sponsors

The Incentives Working Group recommended that mechanisms be considered to provide technical assistance and specified grants targeted to low-income Community DG. Technical assistance should be provided to meet the wide range of experiences that Community DG participants may have.

Topics of discussion included the establishment of a Community DG ombudsman with project finance and development experience to coordinate available public and private resources, similar to the U.S. DOE’s SunShot Initiative. SunShot coordinates five program areas — PV, concentrating solar power, balance of system costs, system integration, and technology in the marketplace — with the goals of reducing solar energy costs and increasing its affordability to consumers. SunShot serves as a central hub for coordination of information and resources as well as a funding source for private and public sector cooperative research, development, demonstration, and deployment projects. The Incentives Working Group noted that technical assistance should also include a standard Community DG request for proposal language or a set of documents and/or procedures as a starting point for projects, such as PPAs or contract review.

Targeted funding with incentives for low-income Community DG should be established to encourage financial investments and to support local development and ownership. Such funding with technical assistance will be critical to increase the value of low-income customer opportunities to participate in Community DG. Grants and technical assistance should be considered as a form of incentives.
An example is the Solar Market Pathways, which recently received a U.S. DOE $1.2 million award to start up a community shared solar program coordinated by the Cook County Department of Environmental Control and the City of Chicago. The award will enable government, utilities, industry, environmental advocates, and community organizations to partner with technical experts in the development of models to make solar energy more affordable to homeowners. A similar approach is being implemented by the Colorado Energy Office, which provides grants to developers who partner with electric cooperatives, municipalities, and utilities to create community solar gardens. In 2015, the Colorado Energy Office launched the Low Income Community Shared Solar Demonstration Project with GRID Alternatives, targeting 1 MW of solar electricity to a minimum of 300 low-income customers.

Based on this research, the Incentives Working Group recommended technical assistance be provided to Community DG project partners to support the scaling of Community DG deployment that benefits and is accessible to low-income customers. NYSERDA may be considered as a funding source or the Commission may authorize project funding specific to low-income Community DG.

D. Setting a Rate for Eligible Low-income Participants

The Incentives Working Group identified several Commission Orders and ongoing proceedings which require further clarification with respect to setting rates for net metered customers, in particular to Community DG rates and potential parameters. In December 2015, the Commission instituted a proceeding, Case 15-E-0751, seeking input on the development of

[29 Case 15-E-0751, In the Matter of the Value Distributed Energy Resources, Notice Soliciting Comments and Proposals on an]
an alternative method of valuing DER, specifically net metering. Although the Commission has previously indicated interest in maintaining net metering as traditionally defined for on-site systems, the Incentives Working Group stated that is by no means assured.

The Incentives Working Group recommended Community DG programs should use the same valuation methodology as identified in the REV proceeding once it is developed and approved by the Commission. As part of REV, the Commission will explore traditional net metering and other mechanisms for DER to be compensated for the value the resource brings to the electric grid, referred to as location-based marginal price (from the wholesale market) and distribution system value (LMP + D).

The Joint Utilities30 recently filed a Petition for Rehearing and Clarification (Petition for Rehearing) in Case 15-E-0407 in response to the Commission’s October 16, 2015 Order Establishing Interim Ceilings on the Interconnection of Net Metered Generation.31 The Interim Ceiling Order essentially lifted the cap on net metered generation until the Commission develops a new tariff, which is targeted for December 31, 2016. In the Petition for Rehearing, the Joint Utilities ask the Commission to clarify that the rate available to net metered generation during this interim period will not constitute a


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

“minimum compensation rate.” In New York City’s view, if the Petition for Rehearing is granted on this point, it could create significant uncertainty in the Community DG market that would make project development extremely challenging during the interim period, particularly given the lack of clarity at this time on what the net metering successor tariff will look like. New York City proposed that one way for the Commission to eliminate this uncertainty is to clarify that projects developed in the interim (e.g., prior to development of the net metering successor), can be grandfathered into net metering for 25 years (similar to the grandfathering term of “monetary” grandfathered projects).

The Incentives Working Group also discussed addressing the barrier of low-income participation and recommendation regarding the role of OTDA, which administers HEAP and other income-based assistance programs statewide and maintains program information in which low-income customers participate. The Incentives Working Group explored the possibility of OTDA releasing participant information to third parties via a database and to expand eligibility to energy-related services beyond HEAP. In addition to HEAP, the eligibility criteria for New York City’s utility low-income assistance programs include Supplemental Nutrition Assistance Program, Supplemental Security Income, and Temporary Assistance for Needy Families/SafetyNet. OTDA could serve as a central repository of statewide information which would provide great value to Community DG, a number of Incentives Working Group members have consistently maintained that confidential customer information should not be disclosed without express written consent from the customer. The Incentives Working Group states that this consent could be obtained by OTDA when customers enroll in HEAP, using the HEAP application as the vehicle to obtain consent. Thus, several
Incentives Working Group members opined that this proceeding is not the proper forum for addressing this issue. The Incentives Working Group recommended that Staff and/or the Commission clarify requirements related to rates for low-income customers in Phase Two of the Community DG program, and continue to provide similar information as REV proceeds.

E. Establishing Specific Reporting Requirements

The Incentives Working Group finds value in setting a goal of low-income customer participation in Community DG as it is difficult to benchmark progress without a goal. Such a goal may prove useful in the context of the incentive structure discussion. One requirement of Community DG in Phase One provided for Community DG in economically distressed areas where at least 20 percent of the residential subscribers were low-income (either utility affordability participants or HEAP recipients).

As was done by the Oversight Working Group, the Incentives Working Group proposes further discussion regarding establishment of a statewide Community DG program-wide goal with a certain percentage targeted to low-income participation. Several members expressed concern that project-specific mandates or goals would create a barrier to participation, particularly during the early stages of Community DG projects when flexibility is critical as project sponsors, utilities and financiers become acquainted with the program. A low-income participation goal (not a mandate) on a program-level basis, particularly when coupled with the NYSERDA low-income incentive currently under development, or a newly developed incentive mechanism that reduces financial risks for developers, would be more effective.

The Incentives Working Group recommended that project sponsors report to the Commission or NYSERDA on project-level
participation by low-income customers on an annual basis for an assessment of whether program-level goals are being met and/or need to be adjusted. The Incentives Working Group also recommended the Commission consider reporting requirements to determine whether Community DG projects are producing measurable customer bill savings. Until the State gains additional experience with Community DG projects, it is important to maintain flexibility on the onset of the program and to conduct annual reviews to determine what issues, if any, need to be addressed to ensure acceptable low-income participation levels.

An additional concern identified by the Incentives Working Group was the potential for projects to be situated within low-income communities, but without serving those living within the community. During the October 2, 2015 Collaborative meeting, it was noted that this was an unintentional result of the California programs. While low-income communities have some positive impacts from Community DG projects located in their neighborhoods, it would be preferable if incentives were available to allow them to participate in the projects in proximity to their residences.

F. Economies of Scale

The issue of economies of scale is not unique to a Community DG project in a low-income community as it is a relevant REV issue (e.g., impact on project size and level of funding). The Incentives Working Group consensus was that this complex issue should continue to be addressed in the REV proceeding.

G. Program Access Across Regions

The Incentives Working Group discussed factors that may impact Community DG’s accessibility for customers across New York’s regions; however, a broader discussion of the role of
electricity rates and solar incentives in different regions of New York is underway in other stakeholder forums.

The Incentives Working Group recommended that the primary goal, regardless of location of a Community DG project or incentive level, should be direct benefits to low-income customers, including energy cost bill savings.

Oversight Working Group

The Oversight Working Group was charged with exploring the definition of low-income customer as well as eligibility criteria; determining the application of consumer protections and HEFPA; discussing regulatory uncertainty; developing program reporting requirements; the customer consent process and protocols; and, coordinating with the DER Oversight Proceeding.

A. Consumer Protections and HEFPA as They Relate to Community DG

HEFPA is not universally applicable to Community DG. However, the group identified certain sections which would generally be applicable. As noted by the Commission in the July 17 Order, Community DG project sponsors fall within the definition, at PSL §53, of an entity that “sells or facilitates the sale or furnishing of ... electricity to residential customers” and would therefore have to comply with HEFPA. However, the Commission also noted that only some HEFPA provisions are applicable to Community DG. The following briefly discusses what HEFPA provisions may be applicable to Community DG project sponsors, and suggests how to streamline compliance for Community DG project sponsors.

1. Applicable Provisions

32 The recommendations in this section were developed in a memorandum submitted by the City of New York and discussed amongst the working group.
Based on the Commission’s discussion of HEFFPA in the July 17 Order, provisions that prevent or delay termination of service are inapplicable to Community DG. For example, provisions requiring utilities to continue serving customers who require life-saving medical equipment would not adhere to Community DG project sponsors, because terminating participation in Community DG would not affect the ability of those customers to receive electric service from a utility. Likewise, provisions governing the conduct of distribution utilities as defined by HEFFPA are inapplicable to Community DG, as Community DG project sponsors do not own or maintain the distribution grid.

On the other hand, HEFFPA’s complaint resolution provisions are applicable to Community DG, as stated in the July 17 Order. Other HEFFPA provisions likely to adhere to Community DG project sponsors include: the requirement to offer budget or levelized billing options; meter reading and estimated billing procedures; back billing on residential accounts; allowed charges for late payments; voluntary third-party notice; and, provisions governing the content of bills and annual notification rights. These provisions provide consumer protections that the Commission should extend to Community DG.

For ease of reference, the Oversight Working Group recommends adopting the following table with respect to the applicable and inapplicable HEFFPA regulations for Community DG:

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<td>11.6 Voluntary third-party notice</td>
<td>11.3 Applications for residential service</td>
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<td>11.11 Budget or levelized payment plans</td>
<td>11.4 Termination or disconnection of residential service</td>
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2. Recommendations to Streamline Compliance with HEFPA

One way to streamline the HEFPA compliance process for Community DG project sponsors is to create a standardized Annual Notification of Rights package. This package would contain all relevant information to which a customer is entitled under HEFPA, such as bill content information and the right to a non-English billing. The package would also alert the Community DG project sponsor about other documents it must file with the Commission for approval, such as a levelized billing plan and a procedure for estimated billing.

The Commission could also adopt a standard set of forms that are available for use by Community DG project sponsors, but are not mandatory. For example, HEFPA requires a utility to file its complaint resolution procedures with the Commission 30 days prior to implementation. The Commission could create a standard form with a simple pre-approved complaint procedure for Community DG project sponsors to follow. The Community DG project sponsor would simply have to fill in
its contact information and file the form with the Commission as part of its HEFPA compliance package, and adopt that procedure going forward. If a Community DG project sponsor has an established complaint resolution procedure, it could opt to file that for Commission approval instead of the standardized form. Similarly, HEFPA requires a utility to allow residential customers to designate third parties to receive certain notifications. A standard voluntary third-party notice form could be provided that contains all the necessary language, and which only requires the Community DG project sponsor to fill in its business mailing address.

B. Goals for Low-income Participation and the Definition of a Low-income Customer in Community DG

The Oversight Working Group identified that simply continuing the 20 percent per Community DG project goal for low-income customer participation into Phase Two with such customer eligibility based on utility discount programs was not an adequate solution. Research conducted by the Oversight Working Group, which was based on estimates of customer counts and on a number of facilitating assumptions, found that utility low-income programs currently serve less than a third of New York’s low-income customers, largely driven by New York City. To address this, the Oversight Working Group identified three possible solutions, and supports one of those solutions that is centered on program goals and income verification. The proposal is discussed in detail below along with other options considered.

The Oversight Working Group stated the Commission will have to decide whether to: expand the definition of what constitutes a low-income customer solely for the purposes of Community DG projects; keep the traditional utility definition of low-income for consistency purposes and reconsider a lower
than 20 percent goal once Phase One concludes; or, remove the per-project mandate and instead set a program-wide goal of 20 percent low-income participation and direct NYSERDA to achieve this goal through incentives and other support as part of the Clean Energy Fund and NY Green Bank. The Oversight Working Group also identified the pros and cons of each option. Despite offering three different solutions, the Oversight Working Group recommends Solution 3 as the best solution for the Commission to pursue.

1. **Define Low-income for the Sole Purpose of the Community DG Proceeding**

A definition of low-income could be established for the Community DG proceeding. The Oversight Working Group recognized that NYSERDA has defined LMI as being at or below an income level equal to 80 percent of the Average Median Income (AMI) for a given region.

One advantage of this approach is the expansion of the pool of potential LMI customers, thus improving the ability of the program developer and/or sponsor to meet the 20 percent Phase One goal. Including moderate income customers is reasonable, since customers with income between 60-120 percent AMI frequently have many of the same credit, income to debt, and other barriers that prevent low-income customers from accessing NYSERDA clean energy programs. The Oversight Working Group also notes that moderate income customers are not prohibited from participating in Phase One.

On the other hand, expanding the definition would require a non-utility third party to be responsible for calculating the LMI threshold and verifying potential customer income eligibility. This party would then need to report verified incomes back to Community DG project developers and/or sponsors. Utilities do not have income information or the
necessary technological system capabilities to perform income verifications for an expanded LMI pool, nor can utilities share information on customers participating in utility low income programs without expressed customer permission to do so. Thus, another entity acting as the project developer, or NYSERDA, would be required to hire a third party or utilize OTDA’s existing income verification protocols for the Community DG program. It is important to note that utilities typically identify customers as low-income once OTDA approves those customers for HEAP grants. Often, receipt of the HEAP grant is the first instance in which utilities learn of a customer's low-income status. Other utilities, like Con Edison, have processes in place to work with county and City agencies to enroll customers based on a variety of qualifying public assistance programs.

Moreover, an expanded LMI definition would create inconsistencies between utility low-income program eligibility and Community DG low-income eligibility, and other definitions of low-income currently being used in other regulatory proceedings in New York State. The inconsistency would confuse customers, make it difficult for both utilities and other parties to explain this differentiation to customers, and could potentially lead to decreased customer satisfaction. Finally, while expanding the pool of qualified participants, making it easier on Community DG developers and/or sponsors and opening access to more customers, the inclusion of moderate-income households would not specifically address participation by those who have the lowest incomes.

2. Keep Low-income Eligibility Tied to Utility Discount Program Participants for Consistency Purposes and Establish a New Goal, Effective May 1, 2016, That Is Less than 20 Percent
Under this proposal, low-income customers for the purposes of Community DG would be defined in the same way as for existing utility low-income discount programs. However, the Commission could recognize that a 20 percent goal may not be possible and set a lower goal, (e.g., 10 percent) to allow developers or sponsors a better opportunity to achieve the goal.

This approach has efficiency benefits because some existing low-income customers are known by utilities because they are enrolled in a utility low-income discount program. Identifying those customers is easier and would maintain consistency between OTDA’s HEAP offering, utility low-income programs, and other regulatory proceedings. However, even if these customers can be identified by utilities, there are ongoing issues regarding the ability of utilities to share income data without expressed customer consent, and those issues are being discussed in detail in the ESCO Low Income Collaborative.

Another concern is the fact that linking qualification to utility low-income discount programs may not allow for a sufficiently large enough pool of customers to meet even a lower Phase Two goal. This could create a barrier to entry on the part of Community DG sponsors. It could also compromise participation in Community DG by low-income customers who should be eligible based on income but are, for various reasons, not enrolled in a utility low-income discount program.

3. Set a Program-wide Goal of 20 Percent Low-income Participation

This proposed solution entails removing the per-project mandate and instead set a program-wide goal of 20 percent low-income participation (averaged across all projects) and directing NYSERDA to assist in achieving this goal through
incentives and other support as part of the Clean Energy Fund or NY Green Bank and not a new customer surcharge.

The 20 percent Phase One goal should not be a requirement for each Community DG project following the conclusion of Phase One on April 30, 2015. To achieve the goal, the Oversight Working Group recommends that NYSERDA could be directed to design incentives and other programs to support this level of low-income participation in Community DG programs on a statewide basis. Some projects could have higher levels of low-income participation, while others could have no or low levels of participation by low-income households. The goal would be to average out participation across the state and across projects to meet the 20 percent participation goal. NYSERDA’s expertise makes it uniquely qualified to determine incentive levels, provide necessary technical assistance, quantify grant amounts, and determine support that would be necessary to achieve a statewide program goal.

The Oversight Working Group further suggests that all low-income customers, whether they are enrolled in a utility discount program or not, should be counted toward the 20 percent goal and should be able to benefit from NYSERDA’s incentives and programs. The Oversight Working Group recognizes that utilities are not set up to verify income and are not able to identify low-income customers that are not enrolled in their discount programs. Therefore, to achieve a wider eligibility, NYSERDA, project developers, OTDA, or another third-party would need to be tasked with verifying income, and meeting the program goal. Expansion of low-income incentives to include LMI customers could be explored, as is the case in the Massachusetts Solar
Loan Program\(^{33}\) and in recent changes to the GJGNY program.\(^{34}\) However, if expansion takes place, the Commission could consider if the 20 percent goal should be expanded to be proportional to the increase.

The Oversight Working Group saw several advantages to this approach. First, while not a requirement, the goal could still be potentially achieved with the expertise of NYSERDA to oversee and administer LMI participation. The program-wide goal would also allow for variations among projects, and would incentivize some developers to design projects for the purpose of enabling high levels of LMI customer participation. This would greatly reduce barriers to entry for potential Community DG developers and/or sponsors, while providing increased support for projects that attain high low-income customer participation. Additionally, including moderate-income customers will increase access to Community DG, since those between 60 to 120 percent AMI frequently have many of the same credit, income to debt, and other barriers that prevent low-income customers from accessing NYSERDA clean energy programs.

NYSERDA should have funding available to support the development of a Community DG program as part of the Clean Energy Fund and NY Green Bank. NYSERDA could utilize this funding to offset their costs of administering such a program. NYSERDA could also use the Community DG program as another source of potential referrals for its statewide EmPower New York program, providing Community DG participants with free weatherization and energy education services. NYSERDA is


uniquely qualified to coordinate referrals between two of their programs.

One downside of this approach is that applying a goal instead of mandate would not necessarily guarantee that the state would meet the program-wide goal. Also, NYSERDA or a third party would need to verify income, unless only low-income customers enrolled in utility discount program were to be counted. This would require additional administration on the part of either NYSERDA, Community DG project developers, or a third party to evaluate whether individual projects contributed toward the 20 percent goal.

A. Reporting Requirements to Measure Community DG Low-income Customer Participation Efficacy

The Oversight Working Group was in agreement that some sort of reporting on Community DG low-income penetration and efficacy should be provided annually, and possibly more frequently if a need is demonstrated. At a minimum, such a report should identify numbers of participating customers, and energy use of installed Community DGs regardless of fuel source (e.g., kWh or therms).

With respect to responsibility for compiling and filing such reports, the Oversight Working Group identifies several recommendations. First, the report should be publicly filed with the Commission. Second, since NYSERDA is the party which will most likely provide funding and/or incentives to facilitate low-income customer participation in Community DG, the Oversight Working Group believes that NYSERDA should be involved in compiling the report. The Oversight Working Group noted that, outside of those customers receiving specific incentives tied to income, it may be difficult to gather income data from participating customers; such data is sensitive and many customers may not wish to disclose it. Community DG solar
providers typically do not request customer income levels when executing contracts, so project sponsors would not necessarily have that information.

The Oversight Working Group recommends that the Commission consider the policy question of whether all Community DG program participants should be required to disclose income levels (which assumes that a customer’s income level will be collected during enrollment for the Community DG project), or whether it is more feasible to require income disclosure only from those who receive specific low-income incentives, recognizing that the latter approach may result in an underreporting of true low-income participation.

D. Regulatory Uncertainty

The Oversight Working Group recognized that a significant amount of regulatory uncertainty exists with respect to Community DG. There are multiple ongoing proceedings with different timelines where orders from the Commission have been issued or are expected to be issued over the course of the next year. The proceedings that may impact or overlap with this proceeding include Case 12-M-0476 (Retail Access); Case 14-M-0101 (REV); Case 14-M-0224 (Community Choice Aggregation); Case 14-M-0565 (Low Income Energy Affordability); Case 15-M-0127 (Energy Services Companies Eligibility); and, Case 15-E-0047 (Orange & Rockland Net Metering). Given these proceedings, the Oversight Working Group recommends that the Commission be cognizant of the ways in which orders in those other cases will impact further orders in this case, or vice versa.

Furthermore, the Oversight Working Group recognizes that the oversight of Community DG strongly parallels that of Case 15-M-0180 (DER Oversight Proceeding). Since a significant number of members of the various Community DG working groups also participate in the DER Oversight Proceeding, the Oversight
CASE 15-E-0082

Working Group is confident that the participants in both proceedings will be cognizant of the impact that actions in one proceeding may have on the other.

E. Recognition of Which Energy Sources Are Included in Community DG

The Oversight Working Group recognized that, consistent with the REV Proceeding framework, and the REV Track One Framework Order, the Commission is supporting a broad portfolio of fuels equally. In the case of Community DG, the July 17, 2015 Order describes a framework centered on a net metering paradigm that is currently authorized under PSL §§ 66-j and 66-l.

The Oversight Working Group took an inclusive approach to Community DG that includes natural gas along with renewables to determine fuel sources eligible to participate in the program, including combined heat and power applications, among others.

F. Areas Where the Commission's Input May Be Required

As noted above, the Oversight Working Group recommends that the Commission consider and act on one of the solutions offered for the definition of low-income customers. The Commission likewise should consider leveraging OTDA’s existing capabilities for performing income verifications for LMI customers as well as NYSERDA’s considerable expertise. Additionally, the Commission should consider who holds the responsibility for gathering and verifying a customer’s low-income status (e.g., Community DG project developers during customer enrollment, or otherwise).

G. Upstate/Downstate Equity

While initially considered by the Oversight Working Group, the issue of upstate/downstate equity was ultimately referred to and addressed by the Incentives Working Group. The
Oversight Working Group defers to the Incentives Working Group on any conclusion reached on this topic.

H. Customer Consent and Disclosure

Customer consent and disclosure was referred to the CDG Customer Working Group. However, NYSERDA’s existing policies concerning customer consent could be reasonably extended to Community DG.