September 25, 2015

VIA Email
Ms. Honor Kennedy (Honor.Kennedy@dps.ny.gov)
Ms. Chelsea Kruger (Chelsea.Kruger@dps.ny.gov)
Office of Consumer Services
State of New York Public Service Commission
Three Empire State Plaza
Albany, New York 12223

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

Dear Ms. Kennedy and Ms. Kruger:

GRID Alternatives appreciates the opportunity to participate in the *Collaborative Meeting Concerning Community Distributed Generation for Low-Income Customers* for Case 15-E-0082. GRID Alternatives representatives, Ingrid Schwingler (Policy & Regulatory Coordinator) participated via teleconference in the first meeting held September 9, 2015 and Ben Cuozzo (Project Manager) participated in person. At that meeting, Commission Staff suggested stakeholders prepare comments and responses to the questions posed in the September 3, 2015 notice, as well as any other additional comments. The informal comments must be provided to Commission staff by September 25, 2015. GRID Alternatives provides the following comments and looks forward to participating as Commission staff works toward their January 15, 2016 report.

GRID Alternatives is the nation's largest nonprofit solar installer, exclusively serving low-income families and affordable housing owners through residential, multi-family, and community solar installations. Using a "barn raising" installation model, GRID Alternatives trains and leads teams of job trainees and other volunteers to install solar electric systems, in partnership with a national network of affordable housing developers, energy efficiency providers, local government agencies, workforce development programs, and solar industry partners.

GRID Alternative's model has been successfully replicated in several regions of the country serving CA, CO, DC, MD, NY, and NJ. GRID Alternatives Colorado is partnering directly with utilities[1] to develop community solar projects that exclusively benefit low-income communities, and with for-profit community solar developers supporting low-income customer acquisition.

[1] https://www.solarelectricpower.org/media/378380/solarops-case-study-grand-valley-power-low-income-community-solar-program.pdf

1. **What are the barriers and technical constraints to low-income customer participation in Community Distributed Generation (DG)? What mechanisms may be employed to remove such barriers?**

GRID Alternatives has identified the following barriers and technical constraints to low-income customer participation in Community DG:

- **Immediate Savings:** Long-term return on investment is not a motivator for low-income families; rather, low-income families need positive cash flow from day one.
- **Distrust:** There may be a general distrust or skepticism of new and complex programs; low-income communities have historically been targeted by predatory lending.
- **Lack of Upfront Capital:** Many families have poor 'front-end' economics and cannot afford the upfront cost of solar.
- **Low Credit Scores:** Financial strain and lending environment make loans or leases difficult.
- **Inadequate Information:** Marketing for general solar programs may not be multilingual or multi-cultural.
- **Consumer Protection:** Third party-financing agreements through leases and power purchase agreements may not clearly define the additional consumer protections necessary for low-income communities.

GRID Alternatives has identified the following mechanisms to remove the barriers to low-income customer participation in Community DG:

- **Definition:** Low-to moderate-income eligibility should be clearly defined and participation should focus on a diverse range of participants. Household income limits are traditionally set at 80% of the area median income (AMI).
- **Flexibility.** Maintaining flexibility between subscribers and Community DG is critical (e.g. a low-income subscriber located within a utility service territory may participate in a Community DG system within that service territory).
- **Financial Commitment:** Provide a long-term dedicated budget for a low-income program to encourage innovation and partnership development to grow the market segment. An effective low-income Community DG program offers a dedicated budget for low-income applicants, with a differential incentive or rebate from the general market to allow developers to make an attractive low-income offering. A recent study published by Vanderbilt University and Sandia National Labs[2] scientists found that investing in programs that provide fully subsidized solar to

[2] http://dl.acm.org/citation.cfm?id=2772945&dl=ACM&coll=DL

low-income households delivers more solar deployment per dollar than investments in general market solar incentive programs.

- **Appropriate Incentives for Immediate Savings:** Low-income families need positive cash flow from day one. Upfront cost of solar is the biggest obstacle and families have limited cash reserves to make investments with long-term payback periods. For low-income customers, participation in a viable Community DG program will typically require no upfront payment, no minimum credit score, no minimum income requirement, no minimum energy use, and near term economic savings.
- **Financial Support:**
    - **Bill Crediting:** Utilizing net metering, provide a long-term bill credit (at least) at the full retail rate (includes transmission, generation, and distribution).
    - **Upfront Rebate:** This type of financial support may be assigned to the low-income participant or subscriber organization. This incentive will allow developers to make a product offering that will be attractive to low-income participants, ideally at no up-front costs to low-income participants. The source of the rebate could be from state or utility energy assistance funds for program participation.
    - **Financing Organization:** Support from a green bank or similar organization providing financing. Low-interest support from a financing organization could be provided to developers and/or subscriber organizations serving low-income customers.
    - **Grants:** Grants for nonprofit developers or low-income subscriber organizations.
    - **Program/Billing Software:** Policymakers or utilities should consider promoting or funding a program or state-universal software option for nonprofits, state agencies, and/or utilities to assist with Community DG implementation.
- **Siting:** Allow maximum flexibility to build projects where it is most economically feasible within a given utility service territory. When possible, locate the projects close to the beneficiary communities to promote visibility and community connection. Keep low-income Community DG projects separate from geographic restrictions applicable to for-profit projects (e.g. co-location or parcel size requirements).
- **Standardized Marketing and Outreach Strategy:** Marketing and outreach is most effective when standardized throughout the state; also provides consumer protection. It is essential to have marketing collateral that is culturally appropriate and multi-lingual.
- **Comprehensive Program:** Integrate synergistic programs, such as low-income energy efficiency/weatherization and workforce development programs. A low-income solar program can provide low-income communities with substantive job training opportunities in this emerging solar sector.
- **Dedicated Partners:** Working with mission-aligned partners and community members is essential to program success. These partners can access low-income communities and provide the necessary customer education and outreach. Innovative partnerships should be

encouraged, especially between utilities, developers, and community based organizations. These types of partnerships can be beneficial to siting, interconnection, outreach, and general program implementation.

2. **Should there be a statewide standardized contract for all customers, including low-income, participating in Community DG? What components should such contracts contain, including customer disclosure information?**

While certain components of the contract should be standardized (e.g. consumer protections and disclosures), all aspects of the customer contract should not be standardized. Community DG projects have multiple financing and subscription models, depending upon the location of the facility and the involvement of subscriber organizations (developers, municipalities, nonprofits, utilities, etc.). Low-income participants should have a different contract than other consumers, to account for differing program eligibility requirements, financing mechanisms, incentives, etc.

Term-lengths and crediting structure may vary for low-income Community DG facilities developed by various developers (for-profit, nonprofit, electric co-ops, etc.). For GRID Alternatives Colorado, the customer contracts for Community DG differ among projects. The 29 kW DC community solar project developed in partnership by GRID Alternatives Colorado and Grand Valley Power is allocated to exclusively low-income customers for 20 years, but every 4 years customer participation is reallocated to give more families the opportunity to subscribe.

Having a non-standardized contract will help facilitate unique connections and partnerships between developers, subscriber organizations, and low-income customers because it allows for the flexibility inherent in designing and developing Community DG projects.

Contracts for Community DG should contain the following:

- Customer disclosures, including a consent to disclose section that states the subscriber gives the developer and/or subscriber organization permission to access usage data from the utility (assuming the utility allows third party access with user consent)
- Term of subscription, process for re-qualification or maintaining eligibility (if applicable for low-income program qualification)
- Protocol for transferring a subscription (especially to ensure low-income benefit is maintained)
- Financial structure (lease or ownership)
    - Rights to production (RECs)
- Information on the bill crediting process and term
    - How the bill credit value is determined (i.e. full retail credit through NEM, including generation, transmission and distribution, guaranteed throughout life of program)
    - How the bill credit is administered (on-bill, through subscriber organization, etc.)

    - Capacity allocation process or subscription sizing (i.e. up to 120% of usage)
    - Rollover/credit banking process (if applicable)
- Process for assigning rebate or incentive to subscriber organization, if applicable
- Any financial contribution from client (i.e. if on-bill financing or payment to subscriber organization is applicable)
- Resources for monitoring production of Community DG, such as a software/web site, any additional educational resources (solar, energy reduction, etc.)
- Protections against hidden fees (late payment, contract termination, etc.) or unreasonable fee or rate escalators

3. **How can other existing weatherization and energy efficiency programs be incorporated with Community DG for low-income customers? Should energy-efficiency measures be required for all low-income members?**

Yes, energy efficiency programming should be incorporated and required for Community DG low-income customer participation. For GRID Alternatives' rooftop installations, for example, customers must be signed up for the state's or utility's low-income energy efficiency program. In Colorado, the Colorado Energy Office's community solar demonstration project targets weatherized households to achieve comprehensive low-income energy burden reduction (the weatherization program targets the gas side of meter, Community DG targets the electric side). This requirement is not a barrier to achieving success in the solar programs and often aligns well with the available low-income energy efficiency services.

4. **What information is needed to inform low-income customers of Community DG opportunities and benefits? How should it be disseminated to potential customers?**

Offering upfront significant financial savings is most important. Bilingual marketing materials may also be beneficial to information dissemination. Using a community-based subscriber organization familiar with working in low-income communities will also help with information dissemination.

GRID Alternatives Colorado found that co-branding the program with the utility partner helps the project be successful (many clients called the utility to verify the program). Additionally, a Community DG program could be co-branded with an affordable housing provider or other established and well-known organization to assist potential low-income customers with verification. GRID Alternatives Colorado works with the Colorado Energy Office to use the statewide weatherization database for outreach efforts.

5. **Should other participation criteria be considered for low-income customers besides the participation in utility-administered low-income discount programs? If so, what participation**

criteria should be allowed and what verification process should be established? Should participants have to recertify and, if so, what happens to customers who are no longer eligible?

Yes, other participation criteria should be considered for low-income customers in addition to participation in utility-administered low-income discount programs. The income eligibility requirement should be consistent with U.S. Department of Housing and Urban Development's (HUD) programs and all of New York State Energy Research and Development Authority's (NYSERDA) programs for low- to moderate-income customers (80% of the AMI (as per family size)). It should NOT be limited to Home Energy Assistance Program (HEAP) enrollment as it is too limiting. For example, GRID Alternatives Tri-State has clients in New York that did not qualify for solar (roofs weren't viable), but they were income eligible. An equitable solution would be participation in a Community DG program that offers them significant savings from solar. This would be true, too, for residents in affordable housing developments that meet HUD's income eligibility criteria and the eligibility threshold set for Community DG.

Organizations and nonprofits already experienced with working and qualifying low-income customers for solar programs should be allowed to utilize their participation criteria and verification processes. GRID's verification process involves obtaining income verification, a utility bill, and proof of residence. GRID also recommends the option of maintaining and qualifying a list of 'approved' Community DG subscriber organizations (or partners) for serving low-income customers.

For participants no longer eligible, they should continue to receive their electric bill from the utility, minus any on-bill crediting since they no longer subscribe to a Community DG. Recertification should be considered for customers not served through a low-income agency such as a housing authority. This can be more easily implemented working through partner organizations that are experienced working and maintaining relationships with low-income communities. If customers no longer qualify, their capacity should be reallocated by the subscriber organization to another eligible low-income customer.

6. **Should a standardized statewide uniform process be established for sharing information, including credits, between utilities and project sponsors? If so, what would that process entail?**

Yes, a standardized statewide uniform process should be established for sharing information in order to measure and track participation and the overall impact of the program. This process could entail a website or online database for subscriber organizations and utilities to input subscriber information (name, address, subscription facility, generation, subscription share, subscription term, cost/accounting, etc.).

7. **What consumer protections should be in place for low-income customers who participate in Community DG projects?**

The following consumer protections should be in place for low-income customers participating in Community DG projects:

- Clear review of the terms of the agreement and make sure those terms are included in the official signed contract.
- Guaranteed long-term bill credit. Clear explanation of assumptions and estimates versus guarantees when it comes to electricity usage and prices over time.
- Clear review of qualifications for subscriber organization(s) and developer(s).
- Clear review of maintenance or outage issues at a Community DG project and what that means for the subscriber's bill if generation is impacted.
- Point of contact for the subscriber.
- Appropriate steps, fees, or implications for the customer to end their subscription early.
- Protections against hidden fees (late payment, contract termination, etc.) or unreasonable fee or rate escalators.

8. **What kinds of Community DG business and/or finance models would be expected (or should be encouraged) to serve low-income customers?**

- **Nonprofit developer/subscriber organization:** in this model, a nonprofit organization experienced with developing Community DG arrays that benefit low-income communities develops projects directly and exclusively serves low-income customers. Incentives and/or grants assist nonprofit developers in covering the costs associated in serving this target demographic. Nonprofit developers could also have access to low-interest project finance capital through a green bank or similar organization.
- **Utility-owned, nonprofit developed, and nonprofit managed:** a nonprofit contracts with and develops a project in direct partnership with a utility who may provide or streamline siting, interconnection, on-bill crediting and on-bill customer financing. As an example, GRID Alternatives Colorado developed a project with Grand Valley Power in this model.
- **Utility power purchase agreement (PPA), nonprofit developed, and nonprofit managed:** a utility partner contracts a long-term PPA with a nonprofit developer at retail rate or higher. This is supported by a production based incentive to allow the nonprofit developer to make an attractive offering to low-income customers, while adequately recovering cost of project financing. Nonprofit developers also have access to low-interest project finance capital through a green bank or similar organization.
- **For-profit/nonprofit partnership:** a nonprofit organization provides low-income customer acquisition support for a for-profit developer to meet a low-income capacity target. GRID Alternatives supports for-profit community solar developers in Colorado in this model.

Incentives should be provided for the nonprofit partner to support the financial sustainability of this type of partnership.

Opportunity for program financing (ideally on-bill) from low-income customers should also be encouraged. The ability for this on-bill financing to achieve full cost recovery for the developer will depend on the program's rate/crediting structures, whether incentives are offered, and the level of those incentives.

Individual subscriber credit support or loans may also be considered, but it is more effective and efficient to support an intermediary organization experienced in working with low-income communities.

a. **Should specific grant programs and technical assistance be established for nonprofit developers and/or organizations? What types of programs should be made available?**

Yes, upfront financing resources should be made available for nonprofit developers or subscriber organizations. Grants should be offered to organizations that develop Community DG facilities that exclusively serve low-income customers, because these organizations are best equipped to serve the target demographic and can often leverage additional nonprofit resources, such as in-kind equipment partnerships. Grants could also be offered to organizations targeting low-income customer acquisition, or supporting for-profit developers with customer acquisition. Technical assistance support may include project siting, program management software, permitting and other 'soft cost' reduction, and resources to support communication efforts with low-income customers.

b. **How can the NY-SUN and/or Green Bank programs provide additional incentives for low-income customer participation? Should a portion of the 2016-2023 NY-SUN Operating Plan provide financial support for pilot demonstration projects?**

Existing residential incentives should not be re-allocated to Community DG. Instead, use the NY-SUN program as a model for designing and implementing additional, complementary incentives for low-income customer participation in Community DG.

As referenced in the answer to #1, the Green Bank could be used to provide upfront rebates, grants, or financing to move projects forward on the front-end.

9. **Should incentives be established to ensure low-income participation goals? If so, how?**

Yes, incentives are essential to ensure that a low-income participation goal or carve out does not become a ceiling. Well-designed low-income incentives encourage low-income subscribers from a wide

range of housing types (single-family residential, renters and multi-family). Based on GRID Alternatives' experience, upfront incentives (e.g. dollar per watt incentive) for subscriber organizations are most important, because upfront capital is a major barrier to successfully achieving low-income access to solar. This type of financial support may be assigned to the low-income subscriber or subscriber organization and maximizes benefits to families because they do not bear the cost of installation. Upfront incentives (comparable to rooftop solar incentives) allow developers to make a product offering that will be attractive to low-income participants, ideally at no up-front costs to low-income participants.

10. **Should other utility customers and/or subscribers subsidize, in whole or part, low-income customer participation in Community DG?**

If low-income customers pay into a program's incentive pool as ratepayers or taxpayers, low-income incentives should be created in proportion to their contribution to the incentive pool. This policy ensures that all ratepayers who contribute to the solar initiative, including low-income families, also have equitable access to receive the benefits of the program.

Low-income participation should not be left to developers or other subscribers to subsidize because they will do the bare minimum and the program does not sustainably grow. This is a key reason it is important to create a targeted, long-term low-income program that is differential from market-rate. It shouldn't be expected that for-profit developers will spend additional resources on low-income participation - which is more costly for them - without significant incentive to do so.

11. **If a Community DG project sponsor/developer receives additional benefits based on low-income membership at the time of project development, should there also be the reporting requirements over some or all of the life of the project? Should there be a requirement to maintain the level of low-income participation over the life of the project?**

Yes, there should be reporting requirements so the impact of the project can be measured and tracked. Yes, there should be a requirement to maintain the same or greater level of low-income participation over the life of the project. One way to ensure this is to support developers/subscriber organizations whose target demographic is low-income customers.

12. **What requirements or guidelines should Community DG products (and/or the marketing of these products) for low-income members be subject to? Should these requirements differ from those for "market rate" customers?**

Yes, low-income requirements or guidelines should differ from "market rate" to provide immediate savings for the subscriber and to maximize bill savings. If the program is providing higher incentives for

low-income participation then the household savings should also be higher/maximized. The takeaways from successful low-income solar programs nationally are that the programs 1) encourage long-term private/nonprofit investment, 2) have a dedicated long-term funding source 3) have appropriate upfront incentives to reduce the upfront cost barrier, 4) maximize energy savings and consumer protections to low-to moderate-income families, and 5) have other co-benefits like energy efficiency requirements and job training.