Implementing Community Solar for Low Income Populations

Community Solar (CS) can deliver tangible benefits to low-income (LI) communities including reduction in their utility costs. Historically, the LI customers have been grossly under-served and unable to access affordable clean energy. The U.S. Department of Energy (DoE) found that LI households face an energy burden (the percentage of a household's income that is spent on energy costs) three times higher than other households. CS can help reduce this energy burden and provide energy equity to the LI population who have not been able to access solar.

CS also provides good jobs that can help ease the disproportionate social and economic burdens that LI households bear. According to the 2019 National Solar Jobs Census, the solar industry in the US employs *over 242,000* people with wages that are competitive to the national median wage.

CS can ensure that LI communities are provided equitable and affordable access to clean energy. In Colorado, for example, LI CS projects have saved between 15 and 50 percent on electricity bills, amounting to an average annual savings of $382 per household. By generating savings of hundreds of dollar for a LI family's annual utility bills, CS helps housing to stay affordable.

While these are foundational benefits of CS for the LI population, there are supplemental benefits to the community, such as strengthening grid resiliency and establishing long-term local tax revenues.

Hurdles

There are several barriers to LI customer participation in CS programs:

1. No universal definition of LI. Each state and utility seem to have their own definition on who qualifies for a LI program.
    - CS developers must grapple with these varying requirements, adding cost.
2. Premium CS subscription programs
    - Asking LI residents to pay higher rates to access solar is a non-starter
3. Identifying and qualifying LI clients can be expensive, so more CS programs skip LI clients
    - Credit score requirements make it hard to qualify LI clients
    - Annual income verifications make it onerous to keep LI clients subscribed
4. Higher acquisition/retention costs
    - LI clients are typically renters and move more often, adding to admin. costs

Busting the Myth

There is a common misconception that implementing CS raises costs and requires new subsidies. Most CS projects can actually reduce costs for their subscribers, as evidenced by the fact that many states now require CS developers to offer a discount over the current utility rate to their CS subscribers.

Another myth is that CS for LI is more expensive and thus requires subsidies. This is perhaps true for a CS project with a certain percent set-aside for LI subscribers. But a CS project focused solely on LI subscribers can actually attract lower cost capital and make it cheaper than a non-LI CS project. This is because traditional solar development financing utilizes high cost, market rate capital, while an LI focused CS project can attract lower cost capital from sources dedicated to serving LI customers. The reality is that CS for LI communities can be accomplished very cost-effectively by using *existing* incentives and lower-cost capital sources, such as:

- Community Reinvestment Act (CRA) funding from banks
- New Market Tax Credits
- Opportunity Zone Capital Tax reductions
- Program Related Investments from Foundations
- Mission Related Investments from Impact Investors and Corporations
- Utility incentives for PV deployment in LI communities
- Environmental/Carbon Credits
- Solar Investment Tax Credits
- Accelerated Depreciation

Additionally, concerns about high admin. costs for identifying, recruiting, and retaining LI subscribers for CS can be negated with new approaches focused on solely recruiting LI subscribers. New models aggregate LI subscribers rather than signing up individual LI customers, by recruiting entire affordable housing properties, with all tenants subscribing to the CS program as part of their housing lease agreement. This saves on admin. and subscription costs since individual subscribers/tenants may leave; but the new tenant is also income eligible and thus automatically becomes the beneficiary of the CS project.

Helpful Policies

1. Universal definition of LI
    - 80% Area Median Income is the accepted definition of LI (except for DOE's weatherization program, that has muddied the waters nationally).
2. Lower utility rates for LI customers
    - Discount programs do not require a subsidy because LI focused solar projects can attract lower cost capital
3. Allowing to leverage existing LI program qualifiers such as:
    - Automatically qualify a LI property if it is already qualified for a LI subsidy program such as LiHEAP, Section 8 voucher, LIHTC, PHA, USDA-RD farm housing, etc.
4. Allowing rental affordable housing properties to qualify e.g., multifamily master metered property or a single-family Section 8 rental.