E Source

Using solar programs to help low-income customers during COVID-19

How to design a low-income carve-out

By Steven Day

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Key takeaways

- Consider requiring a percentage of participants to be low-income in your community solar programs. This strategy is called a low-income carve-out.
- Use Austin Energy's community solar low-income program as a guide to design your program's low-income carve-out.
- Use customer participation in an existing low-income program as a quick way to qualify low-income customers for a community solar program.
- Use contact centers to market the carve-out to your low-income customers.

Contents

As the COVID-19 pandemic continues, businesses are struggling and unemployment is rising. This increases the number of low-income customers and makes budgets even tighter for the customers who were already

having financial trouble. To support these customers, see if your existing community solar programs can help them save on their bills. In this report we:

- List community solar program examples and tips
- Explain how to determine eligibility for your programs
- Explain how to market your programs

Examples of community solar programs with low-income carve-outs

We're aware of 21 solar programs across the country that either focus only on low-income customers or have carve-outs for them. Almost half of these are community solar programs, which help your low-income customers lower their energy bills without installing expensive rooftop panels. Community solar programs can also help customers who don't live in or own a standard house and can't install solar panels.

> **Consider adding a low-income carve-out to your existing community solar program.**

To better support low-income customers, consider adding a low-income carve-out to your existing community solar program. It'll be simpler to add a carve-out to an existing program than design and build a new one.

Austin Energy and Duke Energy both have community solar programs with low-income carve-outs. You can use these as a guide in designing yours.

Austin Energy

Austin Energy's [Community Solar](#) program, which is open to all residential customers, allows participants to offset 100% of their energy usage with locally generated solar power. Participants can opt in and out of the program at any time and rates are locked in for 15 years. Austin Energy has set aside a 50% carve-out for low-income customers who are eligible to participate in Austin's [Utility Bill Discounts: Customer Assistance Programs](#) (CAPs). The standard rate for customers participating in this program is $0.0427 per kilowatt-hour (kWh), but Austin Energy used incentive funds to reduce it to $0.0277 per kWh for eligible CAP customers. This rate is slightly lower than the traditional nonsolar rate of $0.02895 per kWh.

Duke Energy in South Carolina

Duke Energy's [Shared Solar](#) program in South Carolina allows customers without net metering to use solar energy without installing rooftop panels. Duke created a carve-out for low-income customers with household incomes at or below 200% of the federal poverty level. These customers don't have to pay the application and enrollment fee, which saves them $120. Duke estimates that the program will save these low-income customers $100 a year in energy costs. The utility prequalifies any customer who's already participating in a

government assistance program like:

- Supplemental Nutrition Assistance Program
- Women, Infants, & Children
- Medicaid

How to determine eligibility for low-income solar programs

We've seen four main strategies for determining eligibility.

Qualify customers based on income. Most programs use some type of income-based criteria. For example, Duke Energy customers are eligible for its community solar program if their household income is at or below 200% of the federal poverty level.

> **Use the same eligibility requirements as existing low-income programs.**

Qualify customers based on location. Customers living in areas with environmental and socio-economic stressors are likely to be low-income. This could include customers living near industrial facilities with pollution or areas that are more vulnerable to natural disasters.

Qualify customers based on participation in an existing program. Use the same eligibility requirements as existing low-income programs. This streamlines the targeting and verification process. For example, Austin Energy customers who already participate in CAP are eligible for its low-income community solar rate.

Qualify affordable housing managers. In Colorado, Connecticut, Maryland, and Rhode Island affordable housing managers can qualify as low-income participants.

How to market to low-income customers

Marketing programs to low-income customers is particularly difficult right now because door-to-door campaigns aren't an option. Instead, use partnerships, contact center support, and self-service kiosks.

Interested in more tips on marketing to your customers?

This information comes from our [Essentials for marketing to low-income customers](#) report, which is available to subscribers of our [Residential Marketing Service](#).

Partnerships. To expand their reach in low-income communities, many utilities have partnered with:

- Community action agencies
- Public housing agencies
- Low-income housing developers
- Faith-based organizations
- Nonprofit organizations that serve low-income families

These entities have relationships with your customers and your customers trust and respect them.

Contact center support. Promote low-income or discount programs when low-income customers call the contact center to ask a question about a bill, complain about a high bill, get payment assistance, or make a payment arrangement. Explain how it can help save them money.

Advertising at self-service kiosks. Provide brochures or other information about low-income and discount programs at in-person bill payment locations such as grocery stores, which are open during the pandemic.

Examples of alternative low-income solar programs

Each utility has unique concerns and barriers to overcome, especially during the COVID-19 pandemic. Here we list more examples of solar programs that support low-income customers. These either don't have carve-outs or aren't community solar programs. For more low-income solar program examples see our report [What are examples of low-income solar programs?](#).

Colorado

In 2015, the [Colorado Energy Office](#) (CEO) launched a [Low-Income Community Solar Demonstration Project](#) that included eight utilities:

- Empire Electric Association, Inc.
- Delta Montrose Electric Association
- Holy Cross Energy
- Yampa Valley Electric Association
- Fort Collins Utilities
- San Miguel Power Association
- Grand Valley Power
- Poudre Valley REA

Each of the utilities designed their community solar projects to best serve their customers. However, the project required them to "offer solar credits to low-income subscribers to ensure that the solar energy provided is affordable." The CEO's [Insights from the Colorado Energy Office Low-Income Community Solar Demonstration Project](#) (PDF) report gives details, program insights, and tips for each of the community solar projects in the demonstration.

Kentucky

According to [KY Habitat for Humanity announces unprecedented partnership with LG&E and KU](#), LG&E and KU collaborated with the Kentucky Habitat for Humanity (KYHFH) to give 10 low-income families subscriptions to the utilities' [Solar Share Program](#). The program will offset "a portion of each family's utility bill for 25 years." Under the utility's new Solar Share gifting option, which the Kentucky Public Service Commission approved in 2019, KYHFH subscribed to 180 shares of the Solar Share program. The organization is transferring the shares to low-income families to offset as much as 30% of the families' monthly energy usage.

Massachusetts

The Massachusetts Department of Energy Resources (DOER) launched the [Solar Massachusetts Renewable Target (SMART) Program](#) in 2018. DOER partnered with Eversource, National Grid, and Unitil. The program provides varying incentives to customers who participate in solar photovoltaic projects up to 5 megawatts in size. Low-income participants are able to receive higher per kilowatt-hour incentives than other participants (**figure 1**).

Figure 1: SMART program compensation rates for systems with less than or equal to 25 kilowatts

For systems with less than or equal to 25 kilowatts, compensation rates range between $0.21432 and $0.39100 per kWh depending on the electric distribution company and whether the customer qualifies for the low-income rate. The program capacity is divided into multiple blocks. As each block fills with participants, a new block opens at a lower incentive rate than the one before it. Here we show the incentives for the first block. All incentives listed have a 10-year term. See the [Solar Massachusetts Renewable Target (SMART) Program Summary](#) (PDF) for more details.

Electric distribution company	Customer type	Block 1 compensation rate
Fitchburg Gas & Electric and Massachusetts Electric	Low-income customer	0.35795
	Standard customer	0.31126
Nantucket Electric and NSTAR Electric	Low-income customer	0.39100
	Standard customer	0.34000

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Electric distribution company	Customer type	Block 1 compensation rate
WMECO	Low-income customer	0.32862
	Standard customer	0.21432

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Michigan

The Cherryland Electric Cooperative partnered with the Michigan Agency for Energy (MAE) and Northwest Michigan Community Action Agency (NMCAA) to help low-income customers with the Cherryland Pilots Low Income Solar Program. The program includes 50 low-income households and each household receives nine panel shares in one of the Spartan Solar community arrays. The participants get a monthly bill credit of $0.10 per kWh for their panels' output or about $350 per year in solar bill credits. MAE gave a $80,000 grant to help fund the program. Other funding came from Cherryland and the federal Low-Income Home Energy Assistance Program through NMCAA.

Minnesota

Xcel Energy in Minnesota created a low-income carve-out in its Solar*Rewards program. The program gives varying incentives to customers for buying and installing on-site solar (**figure 2**).

Figure 2: Solar*Rewards incentives

In Xcel Energy's Solar*Rewards program low-income single-family customers get the highest incentives.

Customer category	Production incentive ($ per kilowatt-hour)	Up-front incentive ($ per watt)
Income-qualified single family	0.07	2.00
Income-qualified multifamily and nonprofit organizations serving income-qualified customers	0.06	1.00

| Income-qualified solar gardens | 0.06 | 0.50 |

The Minnesota Department of Commerce requires that Xcel Energy reserve at least 10% of the incentives for income-qualified customers until September 1 of each year. At that point, unclaimed incentives are open to all customers.

Washington DC

In 2016, DC's Department of Energy and Environment established the Solar for All program, which it describes in its Solar Initiatives page. The goal of the program is to "provide the benefits of solar electricity to 100,000 low-income households, and to reduce their energy bills by 50% by 2032." To be eligible, residents' household incomes must be below 80% of the local median income. The program includes options for community solar and residential solar.