Project Name:

BIG SUN COMMUNITY SOLAR

San Antonio developer offers solar panel purchases for LMI customers

Size:
5 MW_{AC}

Location:
San Antonio, TX

# of LMI customers:
40

Project Websites:
https://www.bigsuncommunitysolar.com/

BEST PRACTICES

- Investment Tax Credit
- Philanthropic and Corporate Grants
- No-Cost Site Lease

LIFT by Groundswell

Overview

The Big Sun Solar Community Solar project consists of 13 solar carports in San Antonio, Texas. The project was made possible through a partnership between CPS Energy and Big Sun Solar. Big Sun Solar was previously called Go Smart Solar. CPS Energy – the nation's largest municipally-owned energy company – chose Big Sun Solar to develop, market, build and manage the community solar program. The Big Sun Solar Community Solar project is CPS Energy's second community solar project, and Big Sun Solar also has a number of other commercial solar projects in the San Antonio area.

Big Sun Solar partnered with local businesses across San Antonio to install solar panels on carports. Property owners host the carports while Big Sun Solar manages the installations and maintains the panels. Property owners include real estate offices, truck and car dealerships, a door manufacturer, and a sous-vide prepared foods company. The benefit to the property owners is that they can provide shaded parking to their patrons. For instance, Steves and Sons' carport provides shaded parking for a flea market in San Antonio. Of note, the car and truck dealerships leverage the carports not only for shade, but to protect their inventories from extreme weather events. The first sites were energized in 2019, and the last sites were energized in 2021.

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Photo Credit: Big Sun Solar

The Big Sun Community Solar has a private ownership model rather than being subscription based. Residents in CPS Energy's jurisdiction can participate in the program by purchasing a number of solar panels to offset their energy costs. Customers sign 25-year contracts, and due to the solar panel ownership model, the only way program participants turnover is if a current participant moves outside of CPS' jurisdiction or decides to leave the program. Participants could purchase just one panel or up to 100% of their annual energy load. The project is currently full, and the waitlist has approximately 898 interested participants (as of November 2022).

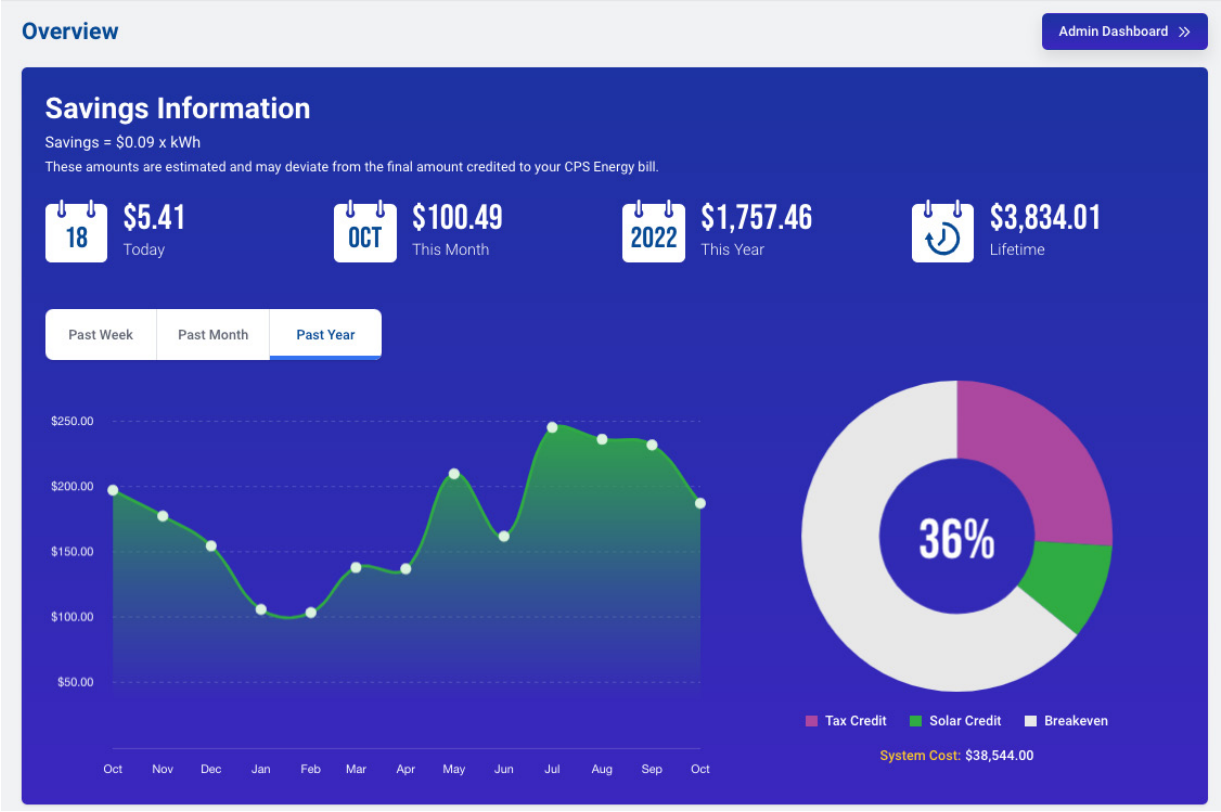
The project has a 10% carve-out for LMI households. Though the original goal was for a higher LMI carve-out, unfortunately it was unachievable due to COVID-19 and having to take up phone-banking. Ultimately, 40 low-income households were enrolled. Big Sun Solar identified potential LMI participants through the list of CPS Energy customers who were eligible for their Casa Verde low-income Weatherization program. No additional income verification was required.

One solar panel is a minimum upfront investment of $876. Participants can take advantage of the Investment Tax Credit (ITC), which brings the net cost of one solar panel down to $675. Many LMI customers chose to spread the ITC over several years. Big Sun Solar determined 11 panels – costing approximately $9,600 – to be the ideal amount for a family. With the solar assistance grant, 11 panels were cash flow positive from day one. For LMI participants, Big Sun Solar raised $6,000 per family for these purchases from The 80|20 Foundation, Microsoft, and The San Antonio Area Foundation.

Big Sun Solar initially partnered with the River City Federal Credit Union to loan families the remaining $3,600, with a 10-year payback period for the solar panel purchase. However, in an annual audit, the first few loans made by the credit union were flagged because the principal amount was too low for a 10-year term. Big Sun course-corrected and made the loans in-house. Now, households at approximately 80% of the Area Median Income level qualify for the Big Sun Community Solar Assistance Program. Once enrolled in the program, monthly utility bill credits are always higher than the monthly loan payment, making participation cash-flow positive from the start.

In Big Sun Solar's customer management software, solar panel owners can view and track their savings to see how much they have recouped against their initial

investment (see the doughnut graphic in the image below). The expected payback period is 11 years. The portal also shows customers in the Solar Assistance Program if they are in good standing on their loan. If they are not, a portion of the credit is sent to offset outstanding loan debts.



Through the portal, customers can share savings from their solar credits with low-income families through the CPS Energy's Residential Energy Assistance Program.

Big Sun Solar fully financed the project through traditional debt and equity. A small portion of the capital costs were recouped through Big Sun Solar's parking revenue model. Big Sun can monetize the shaded parking value-add of the carports, by charging parking fees and collecting revenue on the parking spots. In the future, Big Sun Solar plans to stack additional value on the solar carport structures like storage and EV charging as the market allows.

Innovative Approaches

- Provides both shaded parking and lower cost solar energy. Shaded parking structures create a value-add to the community and to property owners, especially in the Texas climate. Big Sun Solar recognized that many property owners would be thrilled to offer their tenants shaded parking and offered the capital to build these structures.

- Solar panel ownership for LMI customers. The project offers solar panel ownership to participants who otherwise may not be able to access the benefits of renewable energy. Customers can make a large solar panel purchase with confidence that they will recoup costs through the bill savings generated by their solar panels. Customers can also take advantage of the ITC since they own the panels.

- Recouping project costs through a revenue share of parking fees. Big Sun Solar and property owners alike both benefit from the parking revenue generated.

- User-friendly customer interface. Big Sun's customer portal allows customers to see their lifetime savings, to contribute to local energy assistance programs, to confidently understand the lifetime value of their panels, and to sell them in the marketplace should they move.

Lessons Learned

- It can be difficult to secure loans for low-income families with a long-term payback period. Big Sun Solar learned that any loan under $5,000 with a long payback period is considered predatory. As a result, they had to absorb the cost of loans for the Solar Assistance Program.
- Big Sun Solar initially targeted for a higher LMI carve-out but encountered a situation where the program seemed "too good to be true" to community members. At the start of the project, Big Sun Solar partnered with a local non-profit to conduct community outreach. However, these efforts were forced to be conducted over the phone at the onset of the COVID-19 pandemic. Phone-banking proved to be less effective than in-person engagement, and the carve-out was lowered to 10%.

This case study is a part of the LIFT Toolkit initiative. To explore more case studies and best practices visit LIFT.Groundswell.org
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