

A man with a beard and glasses, wearing a white hard hat with a 'GRID' logo and an orange safety vest over a blue shirt, is smiling while working on a large solar panel. The background shows out-of-focus trees with autumn foliage.

GRID Alternatives:


THE POWER OF A PIPELINE

GRID Alternatives has been installing solar panels on the roofs of single-family homes since 2004, but in California's Inland Empire, they have faced a solar readiness challenge. Plenty of the region's low-income homeowners are interested in solar, and the state's DAC-SASH program provides funding for installing panels on their homes.

However, those who live in older homes often need to repair roofs and update electricity systems to be ready for solar—which costs money they may not have. GRID has long tracked all the homes they serve in a comprehensive pipeline. When they analyzed solar installations that weren't moving forward, they were able to batch repair projects for efficiency and cost savings, secure philanthropic funds to support that and other work, and, ultimately, increase their capacity to achieve the region's climate resilience and workforce development goals.

center for
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CASE STUDY



The Benefits and Challenges of Solar Installation in Low-Income Communities

The mission of GRID Alternatives is to build community-powered solutions to advance economic and environmental justice through renewable energy.

The nonprofit's approach rests on the idea that solar power provides multiple interconnected benefits for low-income communities. Homeowners increase the climate resilience of their homes and reap energy savings (which is a prime motivator for lower income households). Local residents benefit from GRID's workforce development programs. Communities advance their greenhouse gas reduction and economic development goals.

Ten years later, SASH had evolved into the Disadvantaged Communities – Single-Family Solar Homes program (DAC-SASH), which GRID administers across the state. In the wake of DAC-SASH, GRID expanded its work to include multifamily housing and began working with mission-aligned nonprofits interested in solar.

In 2008, the California Public Utilities Commission created a low-income residential rooftop rebate program, Solar on Single-Family Households (SASH), to support GRID's work.

Jaime Alonso joined GRID in 2019 as Executive Director of the Inland Empire region, managing the organization's work in Riverside, San Bernardino, and Inyo Counties. He soon discovered that there were barriers to entering the program. Otherwise eligible homeowners who had not been able to invest in their homes often had older roofs and outdated electrical systems that could not support solar panels and power.

DAC-SASH provides fixed funding that covers the cost of installation for houses that are solar ready (\$6,000-15,000, calculated on the basis of the electrical system's wattage). But it does not pay for solar readiness: roofing, electrical updates, tree trimming. These costs generally range from \$8,000-13,000 and can be as much as \$26,000, which turns free solar installation into a substantial and often impossible financial burden.

GRID has historically addressed this challenge through a partnership with [Sunrun](#), a national solar company.* Sunrun technically owns many of the systems GRID installs, homeowners enter into a third-party ownership (TPO) agreement with Sunrun, and GRID pre-pays the associated costs under the TPO. Everyone benefits from this arrangement: Sunrun receives an [investment tax credit](#); homeowners get solar-ready homes, solar installation, and energy savings; excess energy goes back to the local utility company, which benefits the community; and GRID fulfills its mission. However, as costs have risen in recent years, GRID has had to turn to philanthropy for grants to cover additional costs.

*GRID's partnership with Sunrun ended in July 2025, after this case study was completed. Moving forward, GRID will own the solar systems they install. Philanthropic support will still be critical to fully funding their work.

In 2008 the California Public Utilities Commission created a low-income residential rooftop rebate program, Solar on Single-Family Households (SASH), to support GRID's work.

Unlocking the Pipeline and its Potential

A pipeline is the sum total of all the projects an organization, business, or community is working on to advance a shared priority. A community's affordable housing pipeline includes all the affordable homes at any stage of development in a particular location, while a developer's affordable housing pipeline includes all the homes they have under development. A climate organization working on heat islands might have a tree planting pipeline. In the Inland Empire, GRID has a pipeline of solar installation projects. The pipeline is tracked in Salesforce and includes all the data for every project. This includes client information, information about the home (square footage, roof type and condition, electrical usage, etc.), environmental impacts, outstanding professional services, and more.

At least twice a year, GRID runs a report on projects that have not moved forward for over 100 days. Alonso reviews the report with his construction, outreach, and development managers to identify trends like location, potential system size given available roof space, and energy usage (DAC-SASH funding is based on wattage, so system and energy size affect the cost of individual projects). This allows them to come up with solutions to get the projects moving.

A recent review of 35 stalled projects revealed that the homes were older housing stock, many of them were located in downtown San Bernardino, and about half had Spanish (clay) or concrete tile roofs, which are more labor intensive for roofers.

By batching the 35 homes together, GRID was able to get the roofing companies it works with to consider what it would take to do the solar readiness work for all the houses. Because of the efficiencies involved in working on multiple homes in the same community in a short time frame, the cost estimate was significantly less than it would have been to repair one house at a time.

With the cost estimates, savings, and number of houses that would be served in hand, GRID reached out to the Golden State Environmental Justice Alliance, which has been helping them fund solar readiness.

Unlocking the Pipeline and its Potential

The Alliance, which shares GRID's values and goals—homeowner savings, greenhouse gas reduction, economic development, workforce pathways—has long been a valuable partner. Typically, they have funded a handful of projects at a time. But given the cost-savings and efficiencies GRID had identified, the Alliance significantly ramped up their commitment, providing a grant for the full batch of 35 projects in multiple cities.

GRID subsequently invited members of the Alliance's board to tour their new Clean Tech Training Center in Riverside, where the first phase of their workforce development program, the Installation Basics Training Program (IBT 200), takes place. Excited by the synergy with their vision and mission, the Alliance asked how they could help. They ended up investing \$15,000 in building out Phase 2 of the Center, specifically funding a Spanish tile roof for training (the Center already had a composite shingle roof, which they saw on the site visit).

All of these outcomes—more solar homes, lower costs, additional funding, a new workforce development resource, an expanded collaboration, and progress toward individual and community climate resilience and economic development—started with the pipeline. Creating a pipeline, keeping close track of your pipeline, and analyzing your pipeline data and progress can make the critical difference for expanding, accelerating, and funding your work to achieve the outcomes your community seeks.

By treating the pipeline as a window into the overall system, you can identify the chokepoints that are slowing you down, and develop solutions that address these barriers—just as GRID Alternatives did in the Inland Empire.



Jaime Alonso, an alum of CCI's California Climate Leaders Fellowship and Executive Director of GRID Alternatives Inland Empire

About the Center for Community Investment

The Center for Community Investment (CCI), a sponsored project at Rockefeller Philanthropy Advisors, works to ensure that all communities, especially those that have suffered from structural racism and policies that have left them economically and socially isolated, can unlock the capital they need to thrive. Our work is supported by the Robert Wood Johnson Foundation, The Kresge Foundation, JPMorgan Chase & Co, Target Foundation, Wells Fargo & Company, and The California Endowment.

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