



EXECUTIVE SUMMARY

Solar with Justice

Strategies for Powering Up Under-Resourced Communities and Growing an Inclusive Solar Market



Clean Energy States Alliance • Jackson State University Department of Urban and Regional Planning
Partnership for Southern Equity • PaulosAnalysis • University of Michigan School for Environment and Sustainability
The Nathan Cummings Foundation • The Solutions Project

Acknowledgments

Many people and organizations helped produce this report. The project was a team effort by the 11 authors with the help of their respective organizations.

The idea for this report emerged as a recommendation from grantee partners who attended a 2018 convening on community-owned and community-determined solar that The Nathan Cummings Foundation and The Solutions Project co-hosted. The concept for the convening originated from Sharon Alpert, president of The Nathan Cummings Foundation, and Sarah Shanley Hope, executive director of The Solutions Project.

The authors are grateful to the 82 people who participated in general research interviews for this report. Their names and organizations are listed in Appendix C. We particularly wanted to gather and learn from the perspectives of leaders of frontline community organizations focused on energy equity. We included many of these community leaders in our interviews and in a kickoff workshop in January 2019, which helped set the research agenda for the project. The workshop participants are listed in Appendix D.

We very much thank the approximately 20 people who provided us with information for the report's case studies through interviews and correspondence. We hope they will feel that we portrayed their admirable projects accurately and appropriately, but only the authors are responsible for any errors or misrepresentations.

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Maria Blais Costello, manager of program administration for the Clean Energy States Alliance, was responsible for report production, including copyediting the report, working with the graphic designer, and coordinating all the myriad details that go into producing a document of this size and scope. Diana Chace assisted with proofreading the report. David Gerratt of DG Communications designed the final product.

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For More Information

Information about this project is available on the website of the Clean Energy States Alliance (CESA) at www.cesa.org/projects/low-income-clean-energy/solar-with-justice. To reach the project team, contact:



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On the Cover Photo

A one-megawatt solar project by and for the Soboba Band of Luiseño Indians in Riverside County, California. The project serves the 1,320 members of the tribal community, most of whom live on the Soboba Reservation.

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EXECUTIVE SUMMARY

Under-resourced communities face a disproportionate share of societal burdens and lack access to many of the benefits other communities enjoy. Participation in the solar economy can help ease these burdens and provide low- and middle-income (LMI) households with economic relief. In addition to the obvious benefit of helping to reduce consumers' electricity costs, solar can also reduce electricity shutoffs from non-payment, provide jobs in under-resourced communities, reduce residents' exposure to pollution, diminish the use of potentially dangerous heating sources, and make critical community facilities less vulnerable to power outages from extreme weather events and other electricity disruptions.

The supply and quality of affordable housing can be improved by including solar and allowing roof repairs as part of the rooftop solar installation process, and by creating savings for affordable housing providers that can be leveraged toward preserving and expanding affordable housing. Solar on buildings that house nonprofits can provide utility bill savings that can be redirected to programs and mission-related activities. Solar on single-family homes can increase the home's value. Solar can also make decision-making more democratic by giving residents of under-resourced communities more control over their energy choices.

The goal for the *Solar with Justice* report is to accelerate the implementation of solar in under-resourced communities* in ways that provide meaningful, long-lasting benefits to those communities. The recommendations in the report set a path forward for increasing solar deployments that result in significant economic, equity, and health improvements.

* This report defines "under-resourced communities" as ones that have high proportions of LMI residents and generally receive below average services and financial resources from government. Many, but not all, comprise an above average number of people of color and immigrants.

Building Equity into Solar Development

Representatives of frontline organizations want solar development to be a vehicle for strengthening community-based organizations and building community wealth. But their prior experiences—on a range of issues other than solar—have made them wary of outsiders coming into the community and making decisions for them. For solar to meet the needs of under-resourced communities and to be perceived as beneficial, the community must feel that solar development is something being done *by them* rather than *to them*.

Community empowerment is the process of building leadership capacity within a community to increase community-led decision-making. It is not enough to turn decision-making over to community organizations and residents if they do not have the resources and subject-matter knowledge to deal with a technically complicated subject like solar development, or if legal and financial barriers prevent them from being positioned as solar project beneficiaries. The elements of creating community empowerment can include the following:

1. Establishing trust
2. Educating the community
3. Building organizational capacity and developing leadership
4. Addressing barriers and biases
5. Involving relevant stakeholders in constructive engagement
6. Increasing community wealth
7. Mobilizing resources for program sustainability

Obstacles to Solar for Under-Resourced Communities

There are significant obstacles to deploying solar in a manner that results in the tangible benefits accruing to under-resourced communities. The most obvious barrier for low-income customers is that they have low incomes, which can make it difficult to build financial wealth. Although solar can provide savings on utility bills, and thus reduce energy burdens, LMI households generally need assistance to overcome the initial up-front cost hurdle of going solar. Efforts to enable low-income customers to benefit from solar must also consider a larger set of barriers, including policy, finance, and regulatory obstacles. This report examines ten obstacles and market challenges that must be addressed to successfully deploy solar in under-resourced communities:

1. The solar market is still developing in many places
2. Lack of solar marketer interest and customer awareness in under-resourced communities
3. Financial barriers for community institutions
4. Competition between solar and existing LMI energy programs
5. Policy barriers
6. Utility opposition
7. Competing priorities for advocates and service groups

8. Housing policies
9. Finance policies
10. Vestiges of discriminatory practices and residential segregation

Recommendations

Solar with Justice offers a series of recommendations for advancing solar for under-resourced communities, including the context behind each recommendation and advice on how to implement it. The recommendations from each chapter are listed below for easy reference, though in some cases, it may be necessary to read the explanations in the report to fully understand the reason for, or implications of, the recommendation.

The general findings and recommendations presented in Chapter 4 apply to a range of participants in the solar market. At the top of the list: partnerships with trusted community organizations are central to successful solar development for under-resourced communities.

Top Ten General Findings and Recommendations (Chapter 4)

1. Partnerships involving trusted community organizations are essential
2. It's still the experimental phase for LMI solar
3. Installations for community institutions deserve special consideration
4. Resilience should be a component of LMI solar
5. Financial risk needs to be minimized for LMI households and community organizations



DOE/Chris Collins

6. Strong consumer protection is crucial
7. Shared solar projects can play a useful role, but they are not a panacea
8. Training and workforce development should remain a priority
9. Solar education is important
10. Increasing the availability of financing for solar projects in under-resourced communities is essential

Most of the report's recommendations are targeted at specific key stakeholder groups: state governments, community organizations, philanthropic foundations, the solar industry, municipalities, investors. The aim is to help each group channel its efforts in productive ways.

Recommendations for State Governments (Chapter 5)

1. Measure progress towards energy equity
2. Make sure pro-solar state policies are in place
3. Adopt special incentives and policies
4. Leverage private capital
5. Work with and help community organizations
6. Bring LMI issues into public utility commission proceedings
7. Design solar programs for specific market segments
8. Ensure financial benefits reach LMI households
9. Impose high consumer protection standards

Recommendations for Philanthropic Foundations (Chapter 6)

1. Incorporate input from community groups
2. Support frontline organizations with unrestricted multi-year grants
3. Invest in projects with a strategic focus
4. Leverage financing and program-related investments to de-risk projects
5. Provide funding to determine the most viable community empowerment models for solar
6. Lean in to challenging locations to accelerate equity in solar access
7. Leverage strategic new channels to teach LMI households

Recommendations for Community Organizations (Chapter 7)

1. Insist on the involvement of community organizations
2. Develop an internal education plan
3. Engage the community in dialogue on solar



DOE/Greg Johnstone

4. Control the decision-making process and make careful decisions about project ownership
5. Push for community benefit agreements
6. Identify key institutions and help them adopt solar
7. Take part in shaping policy

Recommendations for Other Stakeholders (Chapter 8)

1. Solar businesses should seek local partners
2. Solar businesses should have a plan for workforce development
3. The solar industry should self-police
4. Local governments can support solar that benefits LMI communities and residents
5. Communities with municipal utilities and electric coops have special opportunities
6. Large electricity users can help shared-solar projects work for LMI households

Recommendations for Expanding and Improving Project Financing (Chapter 9)

1. Build capacity so that community-led development teams and financing institutions can successfully implement projects
2. Present credible solar information in familiar formats
3. De-risk project finance for financial institutions and borrowers

4. Use alternatives to FICO credit scores
5. Negotiate project ownership and distribution of benefits

At the end of most of the chapters, we provide brief descriptions of promising initiatives that others can learn from and emulate. Additionally, we have included extended case studies in several chapters to showcase some of the most inventive approaches that organizations have taken to advance solar for under-resourced communities. Key take-aways from each of the case studies are noted, as well as the types of groups and organizations that could replicate the model presented in the case study.

Case Studies

1. Connecticut Green Bank brings solar to LMI homeowners
2. Energy Trust of Oregon engages community groups to create replicable solar development models
3. The Kresge Foundation provides credit enhancements to finance resilient power projects
4. LaGrange Housing Authority project catalyzes ongoing solar development by an innovative community organization
5. PUSH Buffalo incorporates solar into a mixed-use project with community asset ownership
6. UPROSE's Sunset Park Solar creates New York's first cooperatively owned shared solar project
7. Native Renewables builds energy independence
8. Denver Housing Authority applies shared solar to benefit affordable housing
9. Fellowship Energy arranges for solar energy for faith-based communities
10. RE-volv provides opportunities for nonprofits serving under-resourced communities to install solar energy
11. Investment firm Sunwealth delivers tangible social impact along with strong investor returns

The Report's Origins and Distinguishing Features

The *Solar with Justice* report's meetings, research, writing, and production were funded by The Nathan Cummings Foundation. The need for the project emerged from an early-2018 workshop of its grantees, partners, and thought leaders that was co-convened by the Foundation and The Solutions Project on the topic of community-owned and community-determined solar. Attendees at the workshop identified a strong need for information and recommendations on solar best practices for under-resourced communities.

Although other useful reports have been published on the topic of solar for LMI households and communities, our report has four key distinguishing features:

- ***A diverse team worked together to explore solar in under-resourced communities in a comprehensive, integrated manner.*** The project team not only examined solar technologies, solar policies, and solar market trends, but we also considered the needs and perspectives of residents of under-resourced communities. We put together a project team with deep and varied experience working on solar policy, energy equity, community development, and project financing.

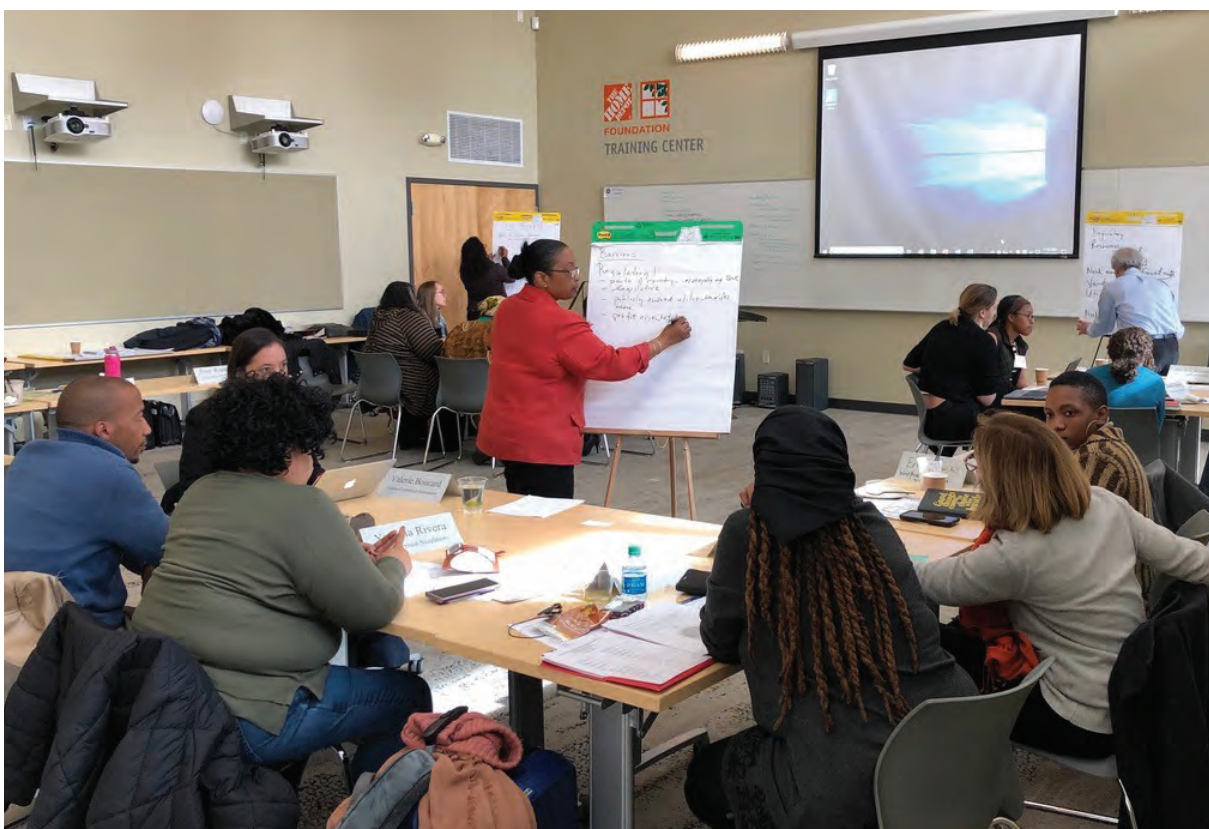
- ***The report gathered the viewpoints of many experts from across the country.***

In addition to desktop research, the project team conducted 76 interviews with 82 leaders and experts from across the country. We spoke with leading solar project developers, investors, community leaders, advocates, and representatives of national NGOs, the federal government, state governments, financial institutions, and solar companies. More than 10 additional interviews were conducted as part of the research for the report's case studies.

- ***The views of leaders of community organizations were given special attention.***

We especially wanted to hear and understand the perspectives of leaders of frontline community-based organizations working for energy equity and climate justice. Those voices are frequently missing from reports prepared by national organizations working on energy issues. We kicked off the project with a full-day workshop in Atlanta in January 2019 with 14 representatives of frontline community-based organizations. Later interviews and a video conference on draft recommendations ensured that the perspectives of community group leaders continued to be heard.

- ***The report makes clear recommendations.*** Rather than simply describe the solar market and present dozens of possible program options without evaluating them, this report presents very clear recommendations aimed at the most important stakeholder groups that can shape the future of solar for under-resourced communities.



Clean Energy States Alliance

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The Clean Energy States Alliance (CESA) is a national, nonprofit coalition of public agencies and organizations working together to advance clean energy. CESA members—mostly state agencies—include many of the most innovative, successful, and influential public funders of clean energy initiatives in the country. CESA facilitates information sharing, provides technical assistance, coordinates multi-state collaborative projects, and communicates the views and achievements of its members. www.cesa.org



Jackson State University (JSU) is a historically Black, research-intensive public institution of higher education in Mississippi. JSU's mission is built upon three pillars of success—student centeredness, teamwork, and the pursuit of excellence. The Department of Urban and Regional Planning at JSU offers the only accredited Urban Planning programs in the state, producing highly knowledgeable, skilled graduates who can significantly contribute to building healthy and sustainable communities. www.jsu.edu



The Partnership for Southern Equity (PSE) is an Atlanta-based nonprofit that advances policies and institutional actions that promote racial equity and shared prosperity in metropolitan Atlanta, the state of Georgia, and the American South through an ecosystem-based model for multi-demographic engagement. Focusing on four key areas—energy, growth, health, and opportunity—PSE has developed strong partnerships, which result in successful policy initiatives that elevate the communities it serves. www.psequity.org



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The Solutions Project accelerates the transition to 100% clean energy for 100% of the people, and does so by working with grassroots organizations to build an inclusive, celebratory, and collaborative culture. It invests in frontline women and leaders of color positioned for impact—helping to amplify their stories and scale their clean energy solutions. It recently committed to invest 95% of its philanthropy in people of color and women-led organizations. www.thesolutionsproject.org

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