# **Equitable Strategy Guide**: A Toolkit for Greenhouse Gas Reduction through Community Solar for Low-Income and Disadvantaged Communities

**Business as usual is no longer enough**. Communities of color, Native communities, and those who are economically marginalized are disproportionately impacted by the risks and realities of climate change. Homes and farms are damaged. Workers and businesses face the impact of on-going economic and climate-related shifts. Lives and livelihoods are at stake. At the same time, the unprecedented level of investments flowing into our new clean energy economy represents a significant opportunity for low-income communities and communities of color to address longstanding systemic inequities. To meet this vision of an equitable clean energy transition, we need to structure investments to ***ensure that resilience and greenhouse gas reduction are engineered into*** ***every investment, every building, every business, every project, everywhere, for everyone***.

The Inflation Reduction Act (IRA) includes historic funding and opportunities to fuel greenhouse gas reduction for low-income and disadvantaged communities. ***In particular, the Environmental Protection Agency’s (EPA) $27 billion Greenhouse Gas Reduction Fund (GGRF) represents a critical tool in realizing the vision of a more equitable, climate resilient future.*** Over the past several months, the University of New Hampshire’s Center for Impact Finance (CIF) and the Natural Resources Defense Council (NRDC) have led a “sprint design process” to develop “equitable strategy maps” to inform equitable greenhouse gas reduction with GGRF funds through traditional lending lines of business in key market sectors.

Through this "sprint design lab" process, supported by CIF and NRDC staff and consultants, ***expert teams have shared knowledge and developed recommendations for delivering equitable resilience and greenhouse gas reduction through coordination, cooperation, and collaboration by all members of the project development ecosystem***: Community Development Financial Institutions (CDFIs), community development banks and credit unions, Minority Depository Institutions (MDIs), Green Banks, and other mission lenders; community development corporations; environmental advocates; contractors; community groups; and others committed to a just, resilient future.

The resulting strategy maps address how to (1) integrate and normalize greenhouse gas reduction into development services, financing, and asset management and (2) coordinate and collaborate on the most impactful ways to deploy EPA’s GGRF dollars to scale clean energy financing in low income and disadvantaged communities and maximize community benefits such as economic development, quality jobs, resilience, affordable housing, and sustainable food systems. Recommendations are grounded in deep, hands-on expertise, developed through working groups of dozens of relevant market participants and stakeholders, who together estimated the investment opportunity in each market sector, identified barriers and potential solutions to scaling each lending line of business, brainstormed about collaborations necessary for project development, and discussed funding priorities.

Each design lab engaged a cohort of experienced lenders, developers, and thought leaders reflective of the project development, and finance process for that market sector to develop an Equitable Greenhouse Gas Reduction Strategy Map. Many thanks to all who participated.

## Scope

In this guide, we make the case that equitable investments in community solar in and for low-income and disadvantaged communities (DACs) should be a key strategy for the EPA’s Greenhouse Gas Reduction Fund (GGRF). Below, we describe the potential opportunities in this sector, and make concrete recommendations to ensure efficiency, effectiveness, accountability, and above all else equity in implementation. We have attempted to keep our focus tight on these specific assets and the market sector that designs, develops, and finances them. For overall recommendations around the implementation of the GGRF and for additional equitable strategy maps, please consult the Center for Impact Finance’s webpage “[An Equity-Centered, Collaborative Approach to Greenhouse Gas Reduction for Low-Income and Disadvantaged Communities](https://carsey.unh.edu/center-for-impact-finance/current-projects/equity-centered-collaborative-approach-greenhouse-gas-reduction-low-income-disadvantaged-communities)”.

## Overview of the Opportunity

Community solar development serving low-income communities and affordable housing properties could provide electricity bill savings, workforce development, community wealth-building and empowerment, and resilience benefits. The field is poised for rapid growth.

* Community solar is defined as any solar installation where the energy produced is used by more than one offtaker. As of fall 2021, the existing community solar space in the US consisted of about 1,600 projects exceeding 3.2 gigawatts in capacity. While growth has been a little slower in recent years, community solar capacity has grown by about 121 percent, year-over-year, since 2010 (more than doubling each year, on average).[[1]](#endnote-2) In all, 957 MW of community solar was installed in 2021, according to SEIA.[[2]](#endnote-3)
* Community solar serving LMI communities has had even faster growth, according to LIFT Solar Everywhere, which has identified 455 community solar projects with 1,600 MW of capacity that dedicate at least some portion of their capacity to LMI households. The total dedicated portion is 270 MW (16% of total capacity of these projects).
* Significant growth is expected over the next several years. The US DOE [National Community Solar Partnership](https://www.energy.gov/communitysolar/about-national-community-solar-partnership#:~:text=The%20National%20Community%20Solar%20Partnership%20(NCSP)%20is%20a%20coalition%20of,increased%20resilience%20and%20workforce%20development.) has set a goal to power 5 million new households with community solar by 2025, generating at least $1 billion in energy bill savings (an average bill reduction of 20%). Deeper tax credits are provided in the Inflation Reduction Act for projects either located in LMI communities or serving LMI offtakers. Observers in the community solar development community believe that these tax credits will be fully utilized by the end of 2024, representing 3.6 gigawatts of new capacity coming online.
* Significant opportunities to promote community solar in low-income and disadvantaged communities may exist amongst existing affordable housing properties served by the mainstream community development field. For example, Madison Park Development Corporation worked with a solar developer on a [rooftop project](https://www.ceimaine.org/news-and-events/news/2021/04/madison-park-development-corporation-bright-community-capital-and-resonant-energy-join-forces-to-bring-low-cost-renewable-energy-to-nonprofit-commercial-and-multifamily-housing-properties/) serving an affordable rental development with 430 households. The Denver Housing Authority built and owns a [2-megawatt project](https://www.denverhousing.org/denver-housing-authority-launches-community-solar-garden/#:~:text=DHA's%20Community%20Solar%20Community&text=The%202%2Dmegawatt%2C%20%243.8%20million,as%20much%20as%2020%20percent.) serving public housing residents. A 50-unit resident-owned [manufactured housing community](https://rocusa.org/news/mascoma-meadows-is-first-n-h-roc-to-go-solar/) in New Hampshire CDFIs also built a community solar array. CDFIs were involved in financing all three projects.
* Large differences in state regulations and state support for community solar have led to [uneven deployment](https://www.energy.gov/communitysolar/states-collaborative) across the US. While at least one community solar project exists in 41 states and territories, nearly three-quarters of the market is concentrated in 4 states (MN, NY, MA, and FL).

## Key Players

Here is a description of the key “players” – the lenders, developers, technical assistance providers, policy and advocacy groups, community groups, and other organizations that are currently working in this space. Scaling the development of mission-driven community solar projects will require coordination and collaboration by all of these players, across the ecosystem.

* While there are very large private-sector community solar developers, there are also a number of mission-driven community solar developers, including both nonprofit and public-benefit developers (see listing in Appendix). Some of these developers specialize in cooperative, community-owned structures. Other developers are small, minority- and/or women-owned developers who seek social benefits through their projects. Policymakers are keenly interested in helping these organizations to grow, as well as in helping new organizations enter the space. Sophisticated affordable housing developers may want to consider building solar development capacity, as organizations with a combination of land and building ownership, financial strength, and general project development acumen who are well-positioned to play at least some meaningful role in the development process.
* ***Green Banks, CDFIs, and other Community-Based and Mission-Driven Lenders:*** Can provide debt financing to community solar projects. Community finance institutions are already deeply engaged in the space; Inclusiv / University of New Hampshire data is tracking 492 community-based lenders offering solar loan products. Lenders with experience in multifamily or commercial real estate lending are generally well-positioned to enter this space due to the similarities in deal structures; [training](https://carsey.unh.edu/center-for-impact-finance/education-and-trainings/solar-lending-training-series) in commercial solar lending is available.
* ***Community-based and Grassroots Groups:*** Are interested in planning community solar or similar projects that respond to their local needs and priorities. These groups may already have an environmental justice or energy justice mission, but other groups may be faith-based groups, neighborhood associations, public housing tenant associations, or other community-based organizations. The Department of Energy [Communities LEAP](https://www.energy.gov/communitiesLEAP/communities-leap) program is supporting several community-based collaborations to plan projects.
* ***Technical Assistance Organizations:*** Assist both community-based groups and mission-driven developers to conceive, design, and implement projects.

## Social Equity Concerns

Community solar can address important social equity concerns with access to solar – provided it is designed, built and operated with equity in mind.

* Ownership of traditional rooftop solar is skewed towards higher-income households, and such systems [remain out of reach](https://scholars.unh.edu/carsey/434/) for many lower-income households and communities of color. Community solar provides an important strategy to [help low-income households access solar energy](https://www.cesa.org/projects/solar-with-justice/), since it is not necessary to own a roof to participate, and since community solar projects can provide ways to leverage funding sources such as the renewable energy investment tax credit that can otherwise be difficult for low-income households to access. Even with community solar, it is important to examine how issues like upfront costs, credit score requirements, or simply understanding the complexities may create barriers to access (LIFT Solar).
* Mission-driven community solar developers who focus on serving low-income communities place a high priority on generating co-benefits for those communities, above and beyond the greenhouse gas reductions such projects create. While it is very difficult for a given project to create all of these co-benefits within one project, they include:
	+ Bill savings – generally these developers target bill savings of at least 20%, which is also the industry average subscriber savings per LIFT Solar. Developers such as [Groundswell](https://groundswell.org/) may use a mixed-income subscriber model to help cross-subsidize savings for lower-income customers. A new DOE subscription platform seeks to [leverage LIHEAP](https://www.energy.gov/communitysolar/community-solar-subscription-platform) supports to help low-income customers access affordable community solar. Absent these kinds of bill savings, LIFT Solar has found that most community solar subscribers who pay a premium price are dissatisfied with their program.
	+ Workforce development and quality job creation – community solar development and installation provides a substantial job creation opportunity. Developers such as [GRID Alternatives](https://gridalternatives.org/) place workforce development at the center of their efforts.
	+ Community ownership and wealth building – beyond building wealth through energy savings, many mission-driven developers use a cooperative ownership model for solar projects such as the members of [People’s Solar Energy Fund](https://www.psef.network/). Others, such as [EnerWealth Solutions](https://www.enerwealthsol.com/who-we-are), seek to use project revenues to support landowners of color. Still, others seek to generate revenues for community-based organizations.
	+ Increased resilience – while project economics of battery storage remain challenging, low-income communities are increasingly interested in projects that can provide energy storage to increase community resilience.
* Many persistent-poverty counties are located in areas that do not have community-solar-friendly policies in place. For example, in much of the rural southeast, third-party electricity sales are not allowed.

## Deal Economics

New supports that were created or deepened within the Inflation Reduction Act provide a game-changing opportunity to develop more community solar.

* ***Community solar deals are financed based on multiple streams of value:***
	+ Tax credits – particularly the [solar Investment Tax Credit (ITC)](https://www.seia.org/initiatives/solar-investment-tax-credit-itc)
	+ [Solar Renewable Energy Credits](https://www.epa.gov/greenpower/state-solar-renewable-energy-certificate-markets) (SRECS) and the presence of any rebates. These sources of support for a project vary substantially from state to state. [Pricing](https://www.srectrade.com/markets/rps/srec/) of SRECs in places like Washington, DC, and New Jersey can provide a significant boost to a project.
	+ The value of the electricity. Market electricity prices in each state are a driving factor in how much revenue from electricity sales a project can capture, as community solar projects can charge higher per-kWh prices in states with higher market electricity prices.
	+ The end result is that it is much easier or harder to get a project to pencil depending upon the state.
* Tax credits are a key component of the project capital stack. Revisions to the solar Investment Tax Credit (ITC) in the IRA are expected to significantly improve deal economics compared to pre-IRA realities and greatly expand development activity:
	+ The ITC has been extended until 2034 and most mission-driven projects should be able to access a credit of at least 30 percent.
	+ Projects may get an ITC for up to 50 percent of the capital stack if the majority of offtakers are low-income (even more if the project is also in an “energy community” whose economy has been dependent on fossil fuels). The law also provides a 10-point boost to projects simply located in a low-income community, although this provision raises concerns about whether and how such communities would benefit. Also, these boosts to the tax credits are only available for the first 3.6 gigawatts of projects; some observers are concerned that projects merely located in low-income communities could use up all the credits. It is important to advocate with the Treasury Department to set aside capacity for the most mission-driven projects.
	+ The 10-point adder for “Energy Communities” (areas whose economy has been reliant on fossil fuels) opens possibilities to serve many communities where projects did not previously pencil.
	+ Nonprofit entities, local governments, and tribes now have a “direct pay” option to receive the value of the ITC for their solar project; project owners can also transfer the value of the ITC to parties with tax appetite. This provision eliminates a significant barrier that existed for developers of smaller projects to access tax credit equity, as most existing tax equity players prefer to invest only in large, utility-scale solar projects, and monetization of the tax credits required complex legal structures.
	+ Grid interconnection costs now form a part of the cost basis on which the ITC is calculated. This change is important in low-income communities where, in many places, the grid is [under-maintained](https://www.americanprogress.org/article/advancing-equity-grid-modernization/) and interconnection costs can be higher.
	+ That said, small for-profit developers and cooperatives may still face challenges monetizing the credits, which may necessitate investing in supports for the new tax credit transfer market. There will also be need to provide bridge financing to nonprofit and local government developers seeking to use the “direct pay” provisions of the new ITC, as that payment will likely not arrive until after the project is complete.
* Many low-income-focused, mission-driven developers are challenged to provide sufficient sponsor equity for the capital stack. Sponsor equity requirements can hit 10% or more of project costs. Currently, the sponsor equity piece is often taken by corporate investors seeking high rates of return. Structures are needed that would enable communities to hold the equity piece instead so that the community can build wealth. GGRF funds could be used for grants or subordinate, back-leverage debt products to help community-based developers provide sponsor equity.
* Long-term debt is a key ingredient for many projects, particularly community-owned projects where the intention is for a community-based group to hold the project for the long term. Given the rising interest rate environment, the cost of capital is now emerging as a more significant challenge than it has in the past. Mainstream market debt providers are generally interested in much larger projects. Meanwhile, both Green Banks and CDFIs have been challenged to provide long-term (e.g. 20-year) debt to projects, due to their own capitalization structures and balance sheet constraints. GGRF dollars could be used to help create longer-term, affordable debt vehicles for mission-driven projects which are often smaller than what mainstream investors are willing to look at.
* Projects that emphasize co-benefits such as resilience or workforce development can face elevated costs, with the resulting potential for financing gaps. GGRF dollars could be used to help fill these gaps, leveraging other money in the capital stack.
* The perceived credit risk of low-income subscribers can impact access to capital for developers of low-income-serving projects. Research suggests that there are better metrics than credit scores, such as an [Energy Score](https://blog.solstice.us/solstice-blog/energyscore-more-inclusive-solar-future/), to underwrite community solar projects in more inclusive ways.

## Barriers to Market Development, Deployment, and Impact

In this section, we describe the complicated set of economic, regulatory, and other barriers to developing community solar projects, getting investable deals, and achieving impact. The challenges are particularly acute in LMI and disadvantaged communities.

* Going forward, some observers are expecting a huge increase in community solar development due to the new supports in the IRA. As a result, however, workforce and domestic manufacturing capacity are going to be two of the largest challenges plaguing community solar deployment.
	+ Already, workforce constraints are impacting projects - in high-demand states, installers are needing to bring in workers from other states to help them finish projects at the end of the year. While the ITC will require developers of larger-scale projects to provide apprenticeship and workforce opportunities if they want to access the full credit, there is only [limited funding for workforce](https://nationalskillscoalition.org/blog/news/inflation-reduction-act-limited-funding-for-workforce-but-not-enough/) programs per se in the IRA. Workforce needs will be at multiple levels – both for installers and for project development staff.
	+ Domestic manufacturing will be an increasingly important issue as IRA ITC requirements for [domestic content](https://www.whitecase.com/insight-alert/new-us-climate-bill-seeks-promote-domestic-content-clean-energy-projects) kick in over time. Supply chains for modules, inverters, and racking are already stressed, in part due to tariffs on important components and in part due to limited domestic manufacturing capacity. This issue is both a challenge for solar development and an economic development opportunity for communities.
* State regulatory barriers are a key driver of differences in community solar development trends across states, both by making it easier or harder to develop such projects, and by driving the level of SREC pricing. Legislation supporting community solar has been enacted in [22 states](https://www.epa.gov/green-power-markets/shared-renewables). LIFT Solar reports that 90 percent of the solar capacity serving LMI households is located in states that have enabling legislation. Similarly, LIFT Solar reports that 66 percent of solar projects serving LMI households are in states with high SREC values and that 71 percent of these projects are in states with high Bill Credit value. The [DSIRE](https://www.dsireusa.org/) database tracks solar policies and incentives by state; however, both lenders and developers have noted that they would appreciate a more up-to-the-minute source of information to support them with decision-making. The National Community Solar Partnership [States Collaborative](https://www.energy.gov/communitysolar/states-collaborative-and-engagement) serves as a hub and support network to help state actors overcome challenges to community solar access; 35 states are currently participating in it.
* The interconnection process (to connect a community solar project to the grid) varies geographically and can dramatically impact deal economics by affecting the project timeline and costs to interconnect. Grid interconnection costs remain a particularly significant barrier for many projects located in low-income communities, despite the inclusion of interconnection costs as part of ITC basis. A [report](https://ilsr.org/2021-local-solar-developer-survey-report/) by the Institute for Local Self Reliance, based on a survey of solar developers, documents this challenge.
* Mission-driven developers have indicated the need for capacity-building assistance, including some level of enterprise-level funding supports to help their organizations grow. Before they can bring specific projects to the table, these developers will need to staff up and will need some “walking around money” to find attractive project opportunities – potentially in the form of grants, according to the proceedings of a recent [roundtable convening](https://carsey.unh.edu/center-for-impact-finance/convenings/financial-innovation-roundtable). Access to project debt also poses a challenge for newer developers, which is an important factor to overcome in order to scale the industry.
* Technical assistance needs are particularly important for mission-driven projects where the idea for the project may have come from a community group, and the group needs assistance in finding and working with a developer or co-developer, as well as for developers with limited track records.
* Once projects are identified, early-stage pre-development is often needed to support purposes such as getting site control, enrolling subscribers, and conducting feasibility studies. Newer mission-driven groups often do not have the capacity to absorb these costs for projects that do not move forward. Therefore, pre-development support may be needed in the form of forgivable loans – or “recoverable grants” – where the support is repaid only if the project moves forward to financial closing.

## Recommendations for Deployment of GGRF Dollars

While the IRA and especially the revamped solar tax credits provide significant supports for project capital stacks, it will be important to deploy Greenhouse Gas Reduction Fund dollars in complementary ways that help to build the larger ecosystem needed to plan and build projects.

* GGRF dollars may be among the only sources in the IRA that are flexible enough to address unmet needs for capacity-building in the field, such as supports for mission-driven community solar developers and workforce programs. GGRF funds should support capacity-building, enterprise-level subordinate loans, and equity or grant investments to support the growth of mission-driven community solar developers. The latter are especially helpful, as they help to build the balance sheet and creditworthiness of the developer. Grants to training and technical assistance providers who help communities and newer developers to design financeable projects are also critically important.
* The [US DOE Community Power Accelerator](https://www.energy.gov/communitysolar/community-power-acceleratortm) is building a network to connect developers, lenders, technical assistance providers, and philanthropic funders to each other. Lenders interested in connecting with developers to finance community solar projects should consider enrolling in this network. The initiative also offers access to training and technical assistance for developers. Bolstering this initiative will help to grow the entire ecosystem needed to deploy community solar. GGRF applicants should set aside dollars for developer capacity-building, as well as funding for training and technical assistance providers and programs that can be aligned with the strategies and networks being created by the Accelerator.
* GGRF funds should be used to support the creation of a debt product or products that provide long-term financing to projects, particularly for community-owned projects where the length of term is key to helping projects pencil. Loan loss reserves or other forms of credit enhancement could encourage community lenders to provide longer-term and lower-cost capital to these projects than they would otherwise. Credit enhancement is also important to encourage private capital to flow to projects focusing on low-income subscribers, due to the perceived credit risks described earlier.
* GGRF funds should also help to seed pre-development funds for forgivable loans / recoverable grants to cover the time and costs for tasks like working with site owners, feasibility studies, and subscriber marketing and enrollment.
* Lenders should provide bridge loan funding to bridge the direct-pay ITC for eligible developers. GGRF money could help mitigate the risks of making bridge loans, particularly before the direct-pay mechanism and timing is well understood (there is uncertainty around what the term of the bridge loans will need to be).
* Small-business and economic lenders should look for opportunities to finance domestic manufacturing projects.
* It will be important for ecosystem players to work with states to improve their community solar policies. Possible strategies could include:
	+ Creating a “policy in a box” for states looking to set up community solar programs. This activity would be best to align and coordinate with the existing DOE [States Collaborative](https://www.energy.gov/communitysolar/states-collaborative) for community solar.
	+ Encouraging more affordable, streamlined, and predictable interconnection processes and costs.
	+ Encouraging consolidated billing (billing for community solar on the utility bill) to reduce customer acquisition and subscription management costs.
	+ Encouraging auto-enrollment with waitlists for low-income programs.
	+ In states that do not move to facilitate community solar, GGRF recipients should work with stakeholders in those states to seek opportunities to design projects that could work around the regulatory barriers. For example, these projects might include solar and storage projects that are islanded off from the main utility, or projects where cooperatives, land trusts, or affordable housing nonprofits can benefit from sales of electricity even if they are to a utility.
* In areas where resilience is a key priority and to provide other means of access for low-income households, low-income rooftop solar and storage programs should also be a priority for GGRF recipients to support projects. These could include mission-driven rooftop solar and storage PPA or leasing programs that utilize the Section 48 tax credits to ensure bill savings, resilience, and other meaningful co-benefits for low-income consumers.
* In areas where low-income community solar subscribers must wait for long periods before their community solar is credited on the utility bill, programs to help bridge that gap will be useful.
* Grant funds could be deployed in areas with high interconnection costs for projects serving low-income subscribers.

## Federal Policy Recommendations:

* EPA should clarify for recipients what methods to use to estimate GHG reduction impacts from a community solar project, and how to consider the additionality of GHG reductions in projects where SRECs are being sold.
* The US Treasury should set aside project capacity for the LMI adders for mission-driven, smaller projects. It should also allow for efficient documentation of subscriber incomes to reduce complexity and expense for developers and subscription managers.
* Both EPA and Treasury should be aware of additionality concerns in the solar industry. Small-scale, community-owned, and highly mission-driven projects will require GGRF support and ITC adders and will return not only GHG reduction but significant community co-benefits. Large-scale commercial and industrial projects should not require additional supports – market financing should be adequate for them to pencil – and return lower community co-benefits.

## Conclusion

Significant greenhouse gas reduction and improved health, economic, and resiliency outcomes are achievable through strategic investment with GGRF capital. Community solar development serving low-income communities and affordable housing properties could provide electricity bill savings, workforce development, community wealth-building and empowerment, and resilience benefits. The field is poised for rapid growth.

Such outcomes will require coordination and collaboration by lenders, developers, installers, technical assistance providers, policy and advocacy groups, community groups, and other key players across the ecosystem. Successful investment strategies will address the complicated set of economic, physical, and regulatory barriers to developing this sector, getting investable projects, and achieving impact – challenges that are particularly acute in low-income and marginalized communities. By taking an ecosystem-level approach, we can work to drive significant quality-of-life improvements for millions and begin to structure investments to ensure that resilience and greenhouse gas reduction are engineered into every investment, every building, every business, every project, everywhere, for everyone.

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## Links to Relevant Literature and Websites

* [US Department of Energy Credit-Ready Solar Initiative](https://www.energy.gov/communitysolar/credit-ready-solar-initiative) (website)
* “Sharing the Sun Community Solar Project Data (December 2021)”. National Renewable Energy Laboratory. <https://data.nrel.gov/submissions/185>
* [Scaling Equitable Solar Finance](https://scholars.unh.edu/carsey/434/) (University of New Hampshire report)
* “The Growth of US Community Solar Serving Low- and Moderate-Income Households.” LIFT Solar Everywhere, June 2022
* “Analysis of Solar Project Finance Research.” LIFT Solar Everywhere, June 2022
* “Customer Experience for Low- and Moderate-Income Community Solar Subscribers.” LIFT Solar Everywhere, June 2022
* [LIFT Solar Everywhere](https://labs.groundswell.org/research/#lift-solar-financial-innovation-to-accelerate-solar-access) toolkit (Groundswell)
* [Solar with Justice](https://www.cesa.org/projects/solar-with-justice/) (Clean Energy States Alliance report)

## Listing of Mission-Driven Organizations in the Space

* The [National Community Solar Partnership](https://ncsp.solarinyourcommunity.org/registrations/groups/39758) maintains a membership list and provides a platform to connect with other members; if your organization is not already a member it will make sense to join and use the networking opportunities afforded by this membership.
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## Links to Case Studies

 The Groundswell LIFT Solar project provides case studies, an explorable Solar Projects Map, a “Project Optimizer” toolkit, and other publications and resources at: <https://lift.groundswell.org/>

1. <https://www.nrel.gov/news/program/2021/sharing-the-sun-report.html> [↑](#endnote-ref-2)
2. <https://www.seia.org/news/solar-growth-trajectory-remains-uncertain-federal-legislation-stalls> [↑](#endnote-ref-3)